

Dissecting the dynamic changes of 5-hydroxymethylcytosine in T-cell development and differentiation

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The discovery of Ten Eleven Translocation proteins, enzymes that oxidize 5-methylcytosine (5mC) in DNA, has revealed novel mechanisms for the regulation of DNA methylation. We have mapped 5-hydroxymethylcytosine (5hmC) at different stages of T-cell development in the thymus and T-cell differentiation in the periphery. We show that 5hmC is enriched in the gene body of highly expressed genes at all developmental stages and that its presence correlates positively with gene expression. Further emphasizing the connection with gene expression, we find that 5hmC is enriched in active thymus-specific enhancers and that genes encoding key transcriptional regulators display high intragenic 5hmC levels in precursor cells at those developmental stages where they exert a positive effect. Our data constitute a valuable resource that will facilitate detailed analysis of the role of 5hmC in T-cell development and differentiation.

thymic development | epigenetics

Cell lineage specification is established through epigenetic modifications of histones and DNA (1, 2). Until recently, the only known modified base in DNA was 5-methylcytosine (5mC), an epigenetic mark established by DNA methyltransferases (DNMTs) (3). 5mC represents 5–8% of total cytosine in different cell types and in somatic cells is almost exclusively found in the CpG sequence context (4–6). With the exception of CpG islands and high CpG promoters, which predominantly contain unmethylated CpGs (7), almost 90% of CpGs in the genome show high levels of cytosine methylation (>50%) (6). With respect to changes in DNA methylation, promoters with intermediate CpG density appear to be the most dynamic (5). At a global level, the lowest levels of CpG methylation are observed at the promoters of the most highly expressed genes; conversely, dense CpG methylation of promoters is generally associated with decreased gene expression (8). There is also dense DNA methylation in gene bodies, but the association of gene-body CpG methylation with transcriptional regulation is less clear (4, 8).

The discovery that Ten Eleven Translocation (TET) proteins are 5-methylcytosine oxidases added additional complexity to our understanding of DNA methylation (reviewed in refs. 9, 10). TET proteins are 2-oxoglutarate- and Fe (II)-dependent dioxygenases that catalyze the hydroxylation of 5mC to 5-hydroxymethylcytosine (5hmC) in DNA (11); further oxidation of 5hmC produces 5-formylcytosine (5fC) and 5-carboxylcytosine (5caC) (12, 13). These oxidized methylcytosine (oxi-mC) species promote DNA demethylation through inhibition of maintenance DNA replication mediated by the DNMT1/UHRF1 complex; they can also mediate “active” (replication-independent) DNA demethylation through a process that involves excision of 5fC and 5caC by thymine DNA glycosylase (TDG), followed by replacement with an unmethylated cytosine through base excision repair (13–15; reviewed in refs. 9, 10, 16, 17).

Recent studies have addressed DNA methylation status either at a genome-wide level (18) or by focusing on the epigenetic regulation of gene expression at specific key regulatory loci, such as that encoding ThPOK (Th-inducing POZ-Kruppel factor) (19). However, treatment of DNA with bisulfite, the gold standard method used to evaluate the distribution of 5mC, cannot distinguish 5mC and 5hmC (20). As a result, regions of 5mC that have been perceived as unchanged potentially include 5hmC as well; in other words, genes that show differences in gene expression at different developmental stages but are perceived as stable in terms of 5mC distribution could in reality be very dynamic in terms of 5hmC.

In this study we took advantage of the fact that thymic development and peripheral T-cell differentiation are tractable systems for the study of dynamic changes in epigenetic modifications during cell differentiation and lineage specification. Because the thymus contains multiple cell types at different stages of T-cell lineage specification, isolation and analysis of individual cell types provides a snapshot of the transcriptional and epigenetic changes that mark specific developmental transitions. Moreover, the transcription factors that drive these processes of lineage specification have been extensively studied (21–24). We have mapped the genome-wide distribution of 5hmC in selected thymic and peripheral T cells and have analyzed its correlation with other

Significance

5-Hydroxymethylcytosine (5hmC) is an epigenetic DNA modification produced through the enzymatic activity of TET proteins. Here we present the first genome-wide mapping of 5hmC in T cells during sequential steps of lineage commitment in the thymus and the periphery (thymic DP, CD4 SP, and CD8 SP cells; peripheral naive CD8 and CD4 T cells; and in vitro-differentiated Th1 and Th2 cells). We show that 5hmC is enriched at gene bodies and cell type-specific enhancers, that its levels in the gene body correlate strongly with gene expression and histone modifications, and that its levels change dynamically during the course of T-cell development and differentiation. Our analysis will facilitate increased understanding of the role of 5hmC in T-cell development and differentiation.

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epigenetic marks. We focused on 5hmC because 5fC and 5caC are considerably less abundant than 5hmC (12, 13), although their abundance increases upon depletion of TDG (25, 26). We show that 5hmC is enriched in gene bodies of developing T cells and that its levels show a strong positive correlation with gene expression, active transcription by RNA polymerase II, and the histone marks characteristic of these processes: trimethyl histone 3 lysine 4 (H3K4me3) and trimethyl histone 3 lysine 36 (H3K36me3). Moreover, 5hmC is enriched at active thymus-specific enhancers, marked by dual H3K4 monomethyl (H3K4me1) and acetylated H3K27 (H3K27Ac) modifications, again emphasizing the correlation with active gene expression. For genes that are equivalently expressed in precursor cells as well as their differentiated progeny, we find that 5hmC is higher in gene bodies of the precursor cells [CD4⁺CD8⁺ double positive (DP) thymocytes, naive CD4, or CD8 T cells] compared with differentiated T helper (Th) 1 and Th2 cells, suggesting an association of 5hmC not only with gene expression but also with precursor status in a developmental pathway. Overall, our data constitute an important resource for future studies addressing the role of DNA modifications in regulating gene expression during T-cell lineage specification in a physiological or pathological context.

Results

Capturing 5hmC Distribution in Different T-Cell Subsets During Sequential Steps of Specification. We purified DP, CD4 SP, CD8 SP, naive CD4, and naive CD8 T cells and also differentiated

naive CD4 T cells into Th1 and Th2 cells in vitro (*Experimental Procedures* and *SI Appendix*, Figs. S1 and S2). We used two different methods to map 5hmC. The first involves treatment of genomic DNA with sodium bisulfite, which reacts with 5hmC to yield the highly antigenic adduct cytosine-5-methylenesulfonate (CMS); CMS-containing DNA is then immunoprecipitated with a specific antiserum developed in our laboratory (CMS-IP) (27). The second method is similar to the glucosylation, periodate oxidation, and biotinylation (GLIB) method also developed in our laboratory (27); it involves glucosylation followed by specific biotinylation of 5hmC and subsequent isolation of biotinylated DNA fragments using streptavidin beads (28). Using DP thymocytes, which are abundant, to compare these two methods, we found significant overlap (*SI Appendix*, Fig. S3 A–C). To map 5hmC-enriched regions of the genome (HERGs) in all seven selected cell types, we used CMS-IP followed by deep sequencing (Fig. 1A and *SI Appendix*, Tables S1 and S2; biological replicates are shown in *SI Appendix*, Fig. S3D).

5hmC Is Enriched in the Gene Body of Highly Expressed Genes and Its Presence Correlates with Markers of Active Transcription. Bioinformatic analysis showed that, in all cell types studied, 5hmC was enriched at promoters and intragenic regions (exons and introns) of annotated RefSeq genes relative to the representation of these regions in the mm9 mouse genome (Fig. 1B and *SI Appendix*, Table S5), although there was clear depletion of 5hmC near the transcription start site (TSS) (Fig. 1C–E). There

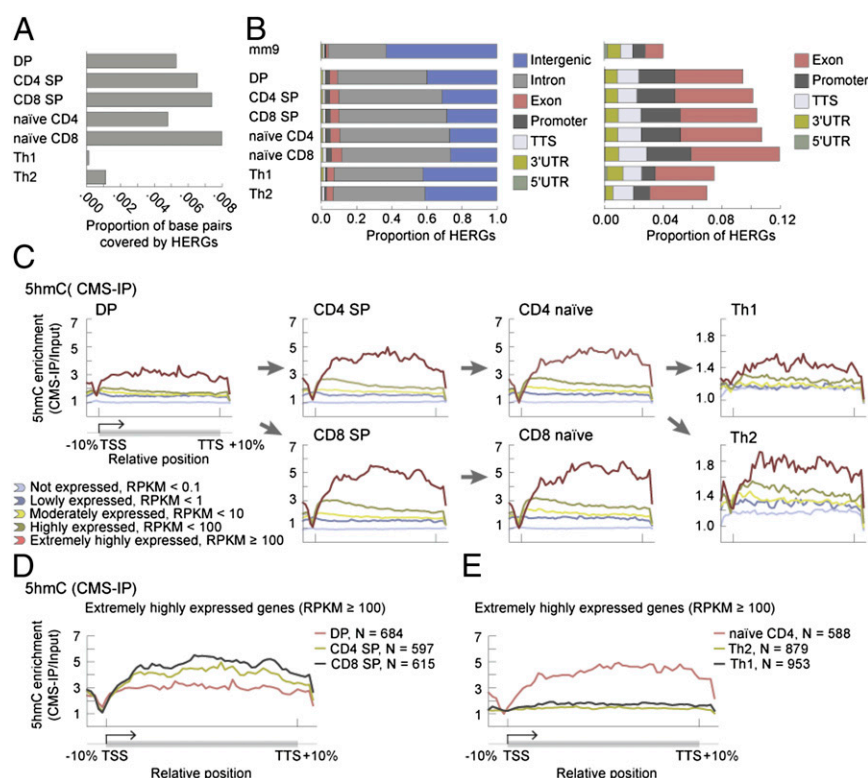


Fig. 1. 5hmC is enriched in the gene body of highly expressed genes. (A) Proportion of the mm9 genome covered by HERGs in each indicated cell type. (B) Proportions of HERGs that fall into annotated genomic regions for each indicated cell type. TTS indicates transcription termination site. A magnified view of promoters and intragenic regions (other than introns) is shown at right. Comparison with the top bar (representation of the annotated genomic regions in the mm9 reference genome) shows that 5hmC is enriched at promoters, exons, and introns. (C) Average 5hmC enrichment over the gene body, categorized based on gene expression levels in the indicated cell types (*SI Appendix*, Table S4). The arrows indicate differentiation pathways, from precursor to progeny cell type. (D) Average 5hmC enrichment over extremely highly expressed genes (RPKM ≥ 100) in DP, CD4 SP, and CD8 SP cells. Gene body 5hmC levels in highly expressed genes are higher in CD4 SP and CD8 SP cells compared with DP thymocytes. (E) as in D, but here the average 5hmC enrichment profiles are calculated over extremely highly expressed genes (RPKM ≥ 100) in naive CD4, Th1, and Th2 cells. Even in highly expressed genes, gene-body 5hmC levels drop in Th1 and Th2 cells compared with their precursor naive CD4 T cells.

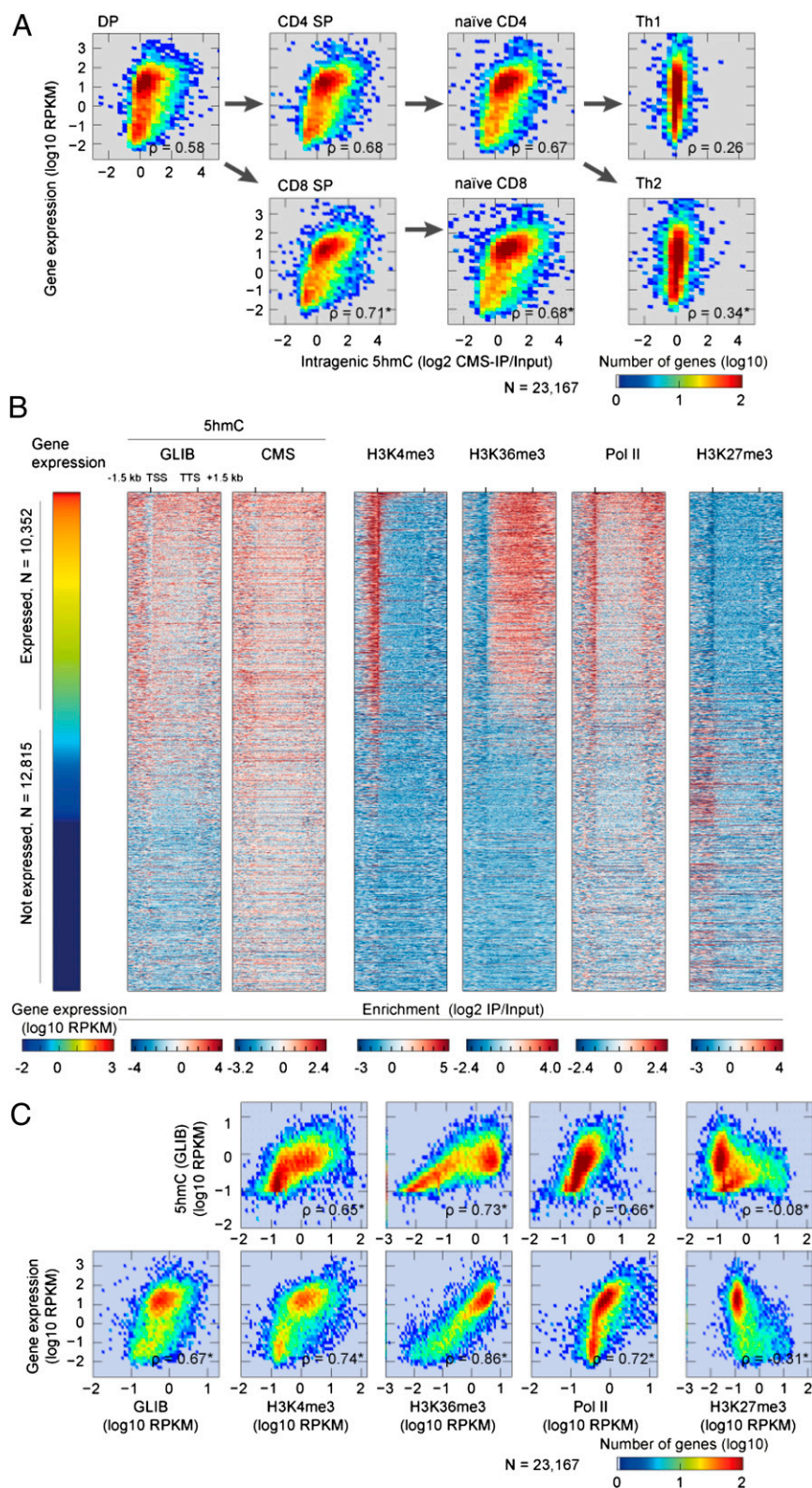


Fig. 2. Intragenic 5hmC levels correlate with RNA Pol II occupancy and with histone marks associated with active transcription. (A) Density plots depicting gene expression (log10 RPKM) and intragenic 5hmC (log2 CMS-IP/Input) in DP, CD4 SP, CD8 SP, naive CD4, naive CD8, and Th1 and Th2 cells. The Spearman correlation coefficient ρ is positive in all cases, reflecting the positive correlation of the two examined parameters; the weak correlation observed for Th1 and Th2 cells (*Right panels*) most likely reflects the low level of 5hmC in these cells. Arrows indicate the directions of lineage specification and differentiation. (B) Heat map depicting gene expression (log10 RPKM), intragenic 5hmC (log2 IP/Input) evaluated by GLIB and CMS-IP, and intragenic H3K4me3, H3K36me3, RNA polymerase II (Pol II), and H3K27me3 in DPT cells. Each row represents a gene, ordered from top to bottom by gene expression in DP cells. The cutoff RPKM of 1 was used to distinguish expressed and nonexpressed genes. (C) Density plots depicting the correlation of gene-body 5hmC (GLIB) (y axis, *Upper*) and gene expression (y axis, *Lower*) with gene-body H3K27me3, H3K4me3, H3K36me3 marks and RNA Pol II (Pol II). All values are represented as log10 RPKM; RPKM values are calculated from TSS to TTS. For each panel, the Spearman rank correlation coefficient ρ is shown (exact permutation test for testing the null hypothesis that there is no correlation, two tailed, $*P < 2.2 \times 10^{-16}$).

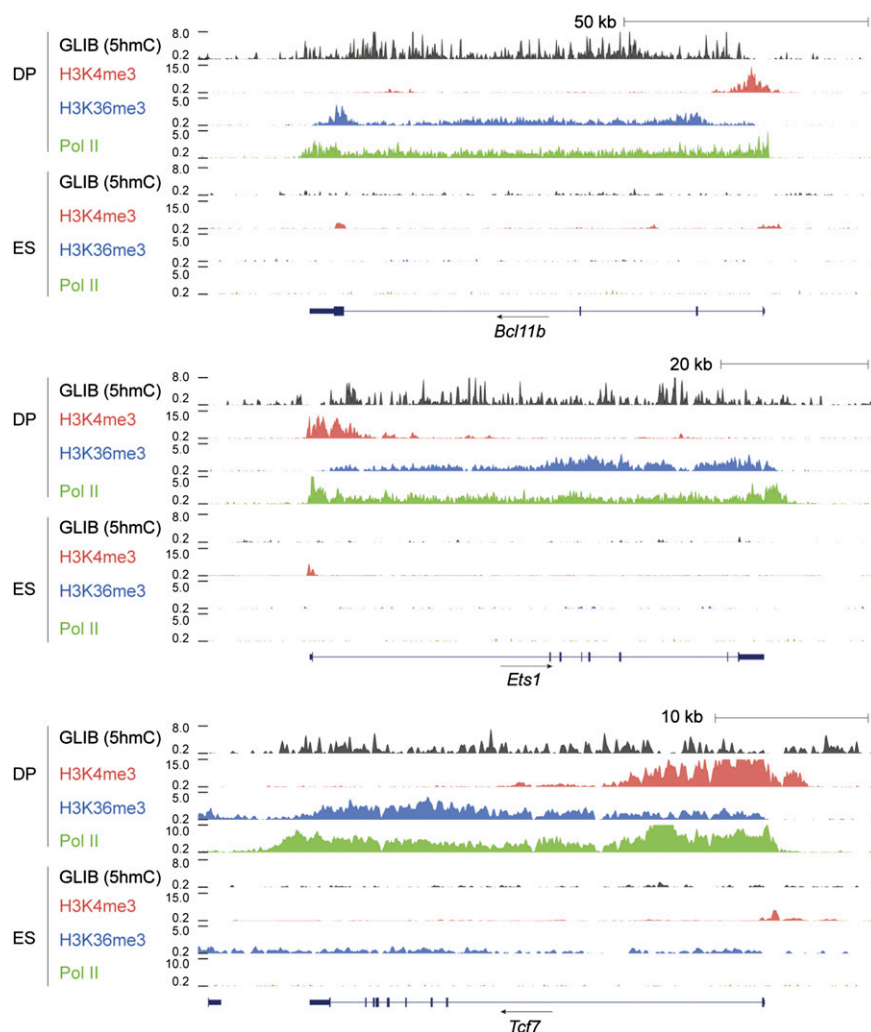


Fig. 3. Portraits of genes in DP and ES cells demonstrating the intragenic distribution of 5hmC and marks of active transcription. Genome browser views of the distribution of 5hmC (GLIB), H3K36me3, and RNA polymerase II (Pol II) around the *Bcl11b*, *Ets1*, and *Tcf7* genes in DP thymocytes and ES cells. 5hmC (GLIB) is shown in black, H3K4me3 in red, H3K36me3 in blue, and RNA polymerase II in green.

was no clear-cut correlation between gene-body 5hmC levels in a given cell type and the position of that cell type in a differentiation pathway: specifically, CD4 SP and CD8 SP T cells were enriched for gene-body 5hmC compared with their DP thymocyte precursors (Fig. 1 *C* and *D*), but terminally differentiated Th1 and Th2 cells showed greatly decreased gene-body 5hmC compared with their precursor naive CD4 T cells (Fig. 1 *C* and *E*). Interestingly, 5hmC levels remained relatively stable as judged by anti-CMS dot blot at the initial stages of differentiation (18 h after activation) but then showed progressive reduction during the expansion phase (36 h to 5 d) (*SI Appendix, Fig. S4*), suggesting a replication-dependent dilution of this modification.

There was a striking correlation between gene-body 5hmC levels and gene expression in T cells. 5hmC was particularly enriched in gene bodies of the most highly expressed genes [reads per kilobase per million mapped reads (RPKM) > 100, Fig. 1*C*], reminiscent of its distribution in neurons (29) and in embryonic stem (ES) cells (27, 30). The correlation remained strong even when all genes—both expressed and nonexpressed—were considered (Fig. 2*A*). In DP cells for which published data on histone modifications are available (31–33) (summarized in *SI Appendix, Table S3*), we compared gene-body 5hmC to the levels of RNA polymerase II (Pol II), H3K4me3, H3K27me3, and H3K36me3

(Fig. 2*B* and *C*). Fig. 2*B* shows a heat map for individual genes with each line representing one gene (−1.5 kb upstream of the TSS to +1.5 kb downstream of the TSS); the genes are ordered based on their expression levels. Fig. 2*C* shows the same data presented as a density plot indicating the correlation coefficient; each dot represents the averaged value for each modification at a single gene. In both representations, there is a clear positive correlation of gene-body 5hmC with Pol II, H3K4me3, and H3K36me3 [all markers of active transcription (1)] and an equally clear negative correlation with H3K27me3, a modification negatively correlated with gene expression (1) (Fig. 2*B* and *C*).

The co-occurrence of gene-body 5hmC with Pol II and H3K36me3 across the gene body and H3K4me3 at the TSS is illustrated in Fig. 3 for *Bcl11b*, *Ets1*, and *Tcf7*, three genes highly expressed in DP T cells. In ES cells in which *Bcl11b* and *Ets1* are not expressed, these genes show greatly diminished peaks of Pol II and the epigenetic marks. In contrast, the *Tcf7* gene, which is expressed at low levels in ES cells, shows mild enrichment for 5hmC and H3K36me3 (Fig. 3).

5hmC Is Enriched in Active Tissue-Specific Enhancers. In a previous study of mouse ES cells (34), 5hmC was shown to be enriched at enhancers, which are distal DNA regulatory elements that contain transcription-factor-binding site and the majority of differentially methylated CpGs, and are important for regulating

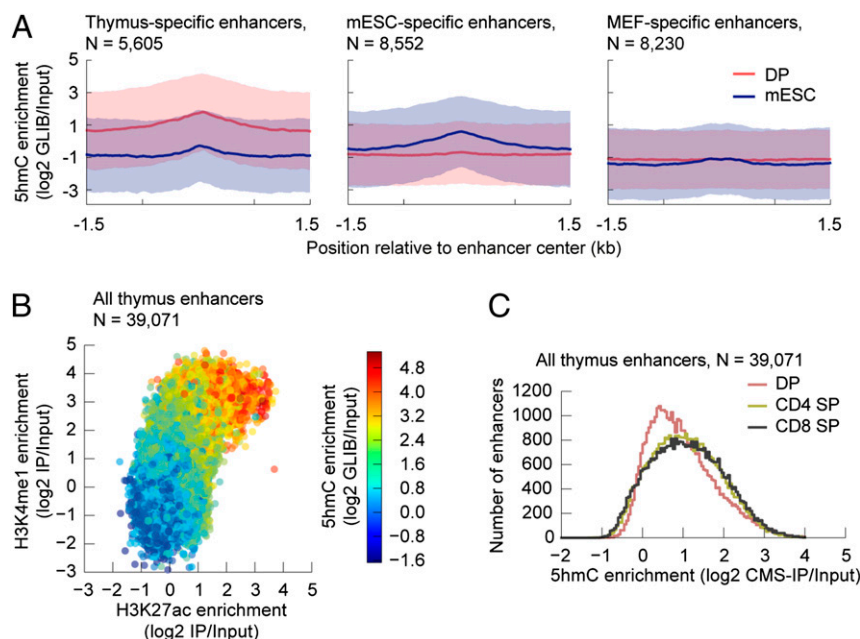


Fig. 4. 5hmC is enriched in active tissue-specific enhancers. (A) Average enrichment of 5hmC ($\log_2$ GLIB/Input) (y axis) from DP (red line) and mouse embryonic stem cells (blue line) in thymus-specific ($n = 5,605$) (Left), mESC-specific ($n = 8,552$) (Center), and MEF-specific ($n = 8,230$) (Right) enhancers. The enrichment is quantified ± 1.5 kb of the reported enhancer center positions (35). The shaded regions depict the SDs of the means. (B) Scatter density plot evaluating the coenrichment of 5hmC, H3K4me1, and H3K27ac in all thymus enhancers ($n = 39,071$). The enrichments are quantified over the regions defined as ± 1.5 kb of the reported enhancer center positions (35). (C) Histogram showing enrichment of 5hmC in thymic enhancers during the specification of DP T cells to CD4 and CD8 SP T cells. The enrichments are quantified over the regions defined as ± 1.5 kb of the reported enhancer center positions (35).

tissue-specific expression patterns during mammalian development (18, 35). In DP T cells, we found that 5hmC was enriched at enhancers marked with H3K4me1 and p300 (35) that are specifically active in the thymus and depleted from enhancers specifically active in ES cells (Fig. 4A, Left and Center). In ES cells, the pattern was reversed: 5hmC was enriched in ES-specific enhancers and not in thymus-specific enhancers (Fig. 4A, Left and Center). As further verification, DP 5hmC and ES 5hmC were not enriched at mouse embryonic fibroblast (MEF)-specific enhancers (Fig. 4A, Right).

Enhancers are marked by H3K4me1 and have been classified into poised and active enhancers based on the absence or presence of acetylated H3K27 (H3K27ac) (35–39). We observed that active enhancers, defined by the co-occurrence of H3K4me1 and H3K27Ac, showed greater enrichment for 5hmC than poised enhancers marked by H3K4me1 but not H3K27Ac (Fig. 4B). Moreover, there is a clear enrichment of 5hmC at thymus-specific enhancers as DP thymocytes progress to the CD4 and CD8 lineages (Fig. 4C).

5hmC Exhibits Dynamic Changes During T-Cell Development and Lineage Specification. We compared 5hmC distribution in gene bodies in five of the seven T-cell subsets (excluding terminally differentiated Th1 and Th2 cells that have very little 5hmC). Clustering genes by gene-body 5hmC, we were able to identify several gene clusters whose patterns of 5hmC distribution changed during T-cell lineage commitment (Fig. 5A and SI Appendix, Table S6). In the heat map of Fig. 5A, each line represents a gene, for which intragenic 5hmC [measured from TSS to transcription termination site (TTS)] is shown during sequential stages of T-cell lineage specification. The data confirm, at a gene-by-gene level, that gene-body 5hmC levels change dynamically during the course of T-cell differentiation. An enlarged view of cluster 2 is shown in Fig. 5A, Right, and a few genes with important roles in thymic development are highlighted here and shown individually in Fig. 5B. Comparing cells related by a single

step of differentiation (i.e., DP with CD4 SP and CD8 SP), we found that with very few exceptions, genes that increased in expression during the differentiation step also showed increased gene-body 5hmC and vice versa (Fig. 5C and SI Appendix, Table S7). As expected from this strong correlation of gene-body 5hmC with gene expression (also shown in Figs. 1–3), Gene Ontology analysis confirmed that the genes for which 5hmC levels are altered during differentiation fall into functional categories involved in immunological function (SI Appendix, Fig. S5 and Table S8).

The correlation between gene expression and 5hmC was also generally borne out when we examined genes encoding key transcription factors that were expressed or silenced during T-cell development (Figs. 6 and 7). For example, 5hmC was observed at highest levels across the gene body of the *Zbtb7b* gene in CD4 SP and naive CD4⁺ T cells, the cells in which *Zbtb7b* [encoding ThPOK, a lineage-determining factor for CD4 T cells (40)] is most highly expressed (Fig. 6, Top). In contrast, the genes encoding the lineage-specifying factors Gata3 (GATA-binding protein 3) and Runx3 (runt-related transcription factor 3) showed a different behavior, reflecting the fact that they act not only in the thymus but also in the periphery. Gata3 is necessary for the DP-to-SP transition (40), for Th2 differentiation (22, 24) and for CD8⁺ T-cell homeostasis and proliferation (41, 42). Levels of 5hmC over the *Gata3* gene were high, as expected, in CD4 SP cells and Th2 cells, which have high *Gata3* expression, but were also high in naive CD4 T cells, the immediate precursors of Th2 cells, and in naive CD8⁺ T cells, both of which show much lower *Gata3* gene expression (Fig. 6, Middle). Finally Runx3, a lineage-specifying factor for CD8⁺ cytolytic effector T cells (43), is highly expressed in CD8 SP cells but poorly expressed in naive CD8⁺ T cells; however, gene-body 5hmC levels were comparably high in these two cell types (Fig. 6, Bottom), perhaps because naive CD8⁺ T cells are the immediate precursors of cytolytic effector T cells that use Runx3 to control transcription of several effector proteins (43).

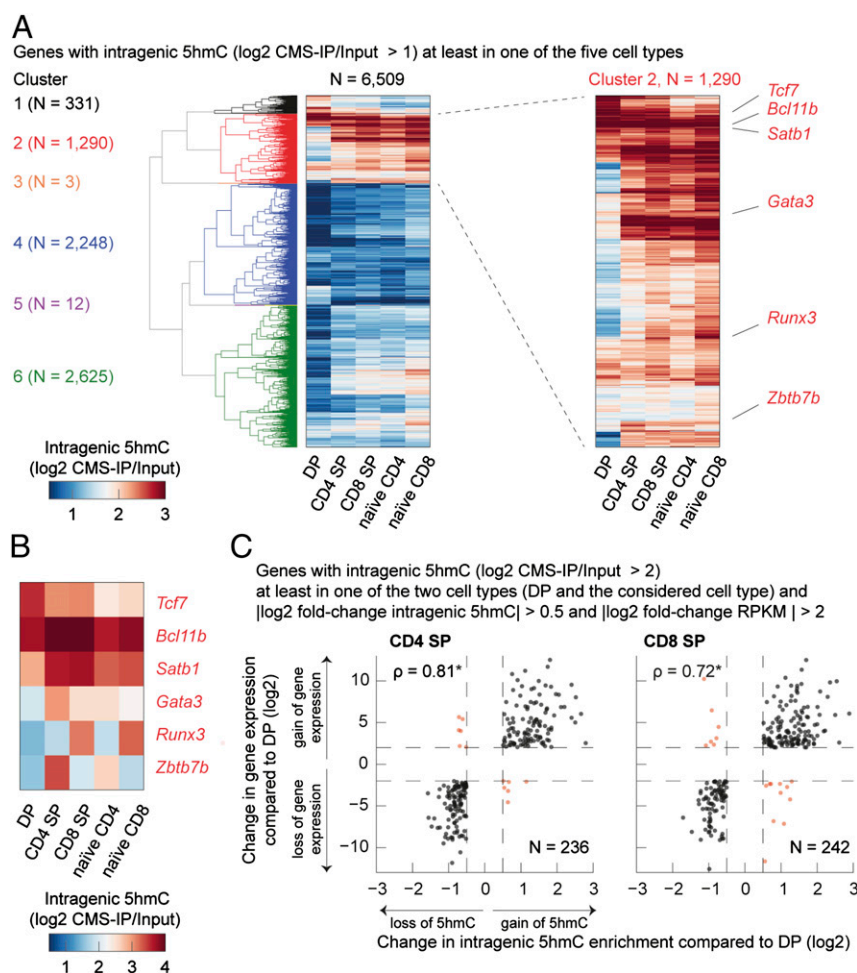


Fig. 5. 5hmC changes dynamically over the course of T-cell lineage specification. (A) Heat map representation of 6,509 genes hierarchically clustered according to their 5hmC patterns in gene sets (*Experimental Procedures*). Genes (≥ 1 kb) with intragenic 5hmC ($\log_2$ CMS-IP/Input > 1) in at least one of the five studied subsets (DP, CD4 SP, CD8 SP, naive CD4, naive CD8) were considered in the clustering analysis. The six identified clusters are numbered and differently colored, and the number of genes per cluster is shown on the left. Six transcriptional regulators in the second cluster that exert a significant role in shaping T-cell identity are indicated (*Right*). (B) Close-up view of the six transcriptional regulators (*Tcf7*, *Bcl11b*, *Satb1*, *Gata3*, *Runx3*, *Zbtb7b*) highlighted in A and clearly showing the differential intragenic distribution of 5hmC in these different T-cell subsets. (C) Scatter plots depicting the change in gene expression (y axis) versus the change in intragenic 5hmC (x axis) in CD4 SP and DP cells (*Left*, $n = 236$) and CD8 SP and DP cells (*Right*, $n = 242$). Genes with intragenic 5hmC ($\log_2$ CMS-IP/Input > 2) in at least one of the two cell types examined in each plot were considered; in addition, the logarithmic fold change of 5hmC (5hmC $\log_2$ fold change) greater than 0.5 and the logarithmic fold change in gene expression (RPKM $\log_2$ fold change) greater than 2 were required. Black dots depict genes that show the same direction of change in gene expression and intragenic 5hmC, whereas red dots indicate genes that show opposite changes. The depicted genes are listed in *SI Appendix, Table S7*. In each plot, the Spearman rank correlation coefficient ρ is shown (exact permutation test for testing the null hypothesis that there is no correlation, two tailed, $*P < 2.2 \times 10^{-16}$).

Notably, at many genes encoding important regulators of T-cell biology such as *Tcf7*, *Ets1*, *Satb1*, and *Itk*, the distribution of 5hmC across promoters and gene bodies seems to reflect not only current gene expression level but also regulatory history on a multiple-day timescale (Fig. 7). Specifically, there is a stronger enrichment of 5hmC at promoter-proximal and 5'-end regions surrounding the TSS in the precursor state (DP stage), but 5hmC depletion in the same region during subsequent developmental stages (Fig. 7).

We also examined genes encoding transcription factors that determine cell fate in non-T-cell lineages and therefore are silenced in T cells (*SI Appendix, Fig. S6*). The *Cebpa* gene, encoding a key factor in myeloid development, showed no hydroxymethylation in T cells (*SI Appendix, Fig. S6, Top*; note scale of 5hmC graph). Moreover, *Gata1* and *Pax5*, encoding key factors in erythroid and B-cell development, respectively, exhibited very low or undetectable levels of 5hmC (*SI Appendix, Fig. S6, Middle and Bottom*; note scale of 5hmC graph).

Discussion

By taking genomic-wide snapshots of 5hmC distribution in thymocytes and peripheral T cells at several developmental stages, we have effectively performed a kinetic analysis of the dynamic changes in these modifications during thymic development and peripheral Th1/Th2 differentiation. Our results make several key points: (i) intragenic 5hmC levels are high in gene bodies of highly expressed genes, and correlate significantly with marks of active transcription; (ii) 5hmC is enriched in active thymus-specific enhancers, again emphasizing the correlation with gene expression; and (iii) genes encoding key transcription factors that positively regulate a specific developmental transition have high 5hmC in their gene bodies, particularly in the precursor cells for that developmental stage. Together, these data provide important insights into the potential biological roles of 5hmC in regulating gene expression during normal T-cell lineage specification.

One of our most striking findings is the pronounced correlation between intragenic 5hmC levels, gene expression, Pol II

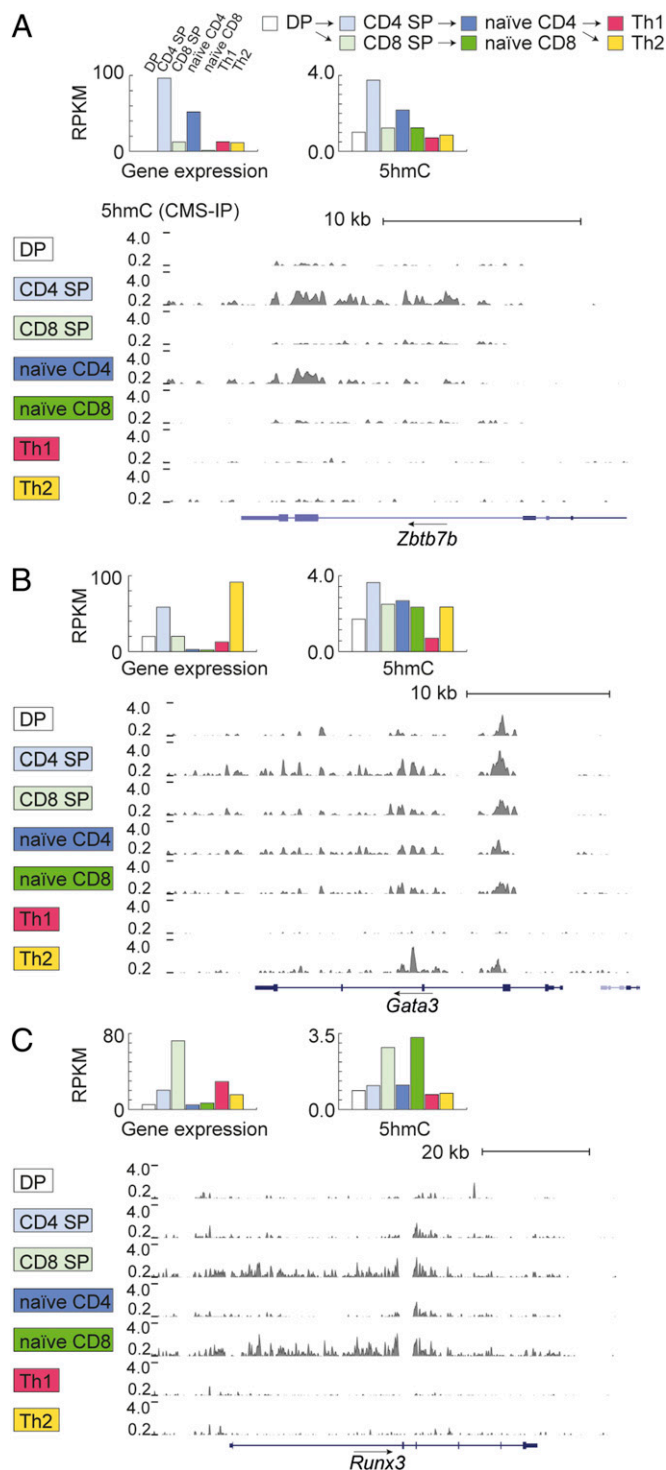


Fig. 6. Portraits of intragenic 5hmC in T-cell lineage-specifying transcription factors. (Left) Genome browser views of 5hmC (evaluated by CMS-IP, gray) in (Top) the *Zbtb7b* gene, encoding the transcription factor ThPOK that regulates the CD4 lineage; (Middle) *Gata3*; and (Bottom) *Runx3*, the lineage-determining factor of the CD8 lineage. A black arrow above the gene symbol indicates the direction of transcription. Bar graphs depict RPKM values evaluated over the gene body (y axis) for gene expression and 5hmC in each of seven cell subtypes (DP in pink, CD4 SP in white, CD8 SP in purple, naïve CD4 in gray-blue, naïve CD8 in yellow, Th1 in green, and Th2 in bright blue).

occupancy, and the H3K4me3 and H3K27me3 modifications that have an established association with active gene expression

(1). Focusing on cell types related by developmental transitions, there was a clear dynamic modulation of the 5hmC epigenetic mark in gene bodies during T-cell differentiation. Gain of gene expression during lineage commitment correlated well with gain of 5hmC; conversely, decreased gene expression correlated with loss of intragenic 5hmC. This correlation of gene-body 5hmC with active gene transcription is in striking contrast to the inverse correlation established for DNA methylation at promoters, with inactive and active promoters marked by high and low levels of 5mC, respectively (8).

5hmC enrichment over the gene body of highly expressed genes has also been noted in mouse ES cells (30), neuronal cells/tissues (29), and differentiating sperm cells (44) (reviewed in ref. 9). Despite this intense research, the functional importance of gene-body 5hmC is not yet clear in any system. Does intragenic 5hmC facilitate gene expression, or is it passively deposited as a consequence of high-level gene expression, for example, through the association of TET2 or TET3 with elongating RNA Pol II via the SET/COMPASS complex (45). In mouse ES cells, Tet2 predominantly controls intragenic 5hmC levels (30); however, Tet2-deficient mice are viable and fertile and exhibit only mild immunological and hematological phenotypes (46). Because both Tet2 and Tet3 are expressed at high levels in thymocytes and T cells (47, 48), studies of T cells doubly deficient in both *Tet2* and *Tet3* will be needed to determine whether gene-body 5hmC facilitates transcriptional elongation by RNA polymerase II or is merely deposited in a passive manner during transcriptional elongation.

Examining H3K4me1-marked enhancers in five different thymic cell types, we found that 5hmC was highest at active enhancers marked by H3K4me1 as well as H3K27ac (38, 39), intermediate at “poised” enhancers marked by enrichment for H3K4me1 alone, and lowest at inactive enhancers not bearing either modification in a given cell type. Once again, these data showcase the positive correlation of 5hmC with actively transcribed genes. Analyzing cell types related by a single developmental transition, we found that 5hmC is enriched at thymus-specific enhancers during the DP → CD4 SP and DP → CD8 SP lineage commitment steps. Thus, at both gene bodies and distal regulatory elements, 5hmC enrichment is a marker of transcriptional activity and gene expression. 5hmC may facilitate long-range interactions between enhancers and other regulatory regions that are dynamically modulated during T-cell development or may be involved in recruiting or excluding transcriptional regulators that in turn modulate the expression of enhancer target genes. Another scenario is that 5hmC is passively deposited at enhancers by TET proteins that are associated with RNA polymerase II molecules engaged in transcribing enhancer RNA. Additional studies will be needed to distinguish these possibilities for 5hmC and other oxi-mC marks at distal enhancers.

Even though the oxi-mC species produced by TET proteins are intermediates in DNA demethylation, we have not mapped changes in DNA methylation in the T-cell subsets that we have studied. In part the reason is technical: the available methods for precipitating 5mC-containing DNA are very density-dependent and so cannot be compared directly with 5hmC mapping by CMS-IP. Although this problem could in theory be resolved by using single-base resolution methods for mapping 5mC (whole-genome bisulfite sequencing, or WGBS) and 5hmC (TAB-seq, oxBS-seq) (reviewed in ref. 48), these methods are very inefficient at capturing dynamic changes: only 21.8% of autosomal CpGs in ES cells showed differential methylation when 30 different human cell types and tissues were compared by WGBS (18), emphasizing the expense and inefficiency of accumulating reads at CpGs unlikely to show dynamic changes during thymic development. A second reason is that the functions of TET proteins likely extend beyond DNA demethylation to a more direct involvement in the epigenetic regulation of gene transcription. Specifically, all three oxi-mC species—5hmC, 5fC, and 5caC—are likely to function as epigenetic modifications that

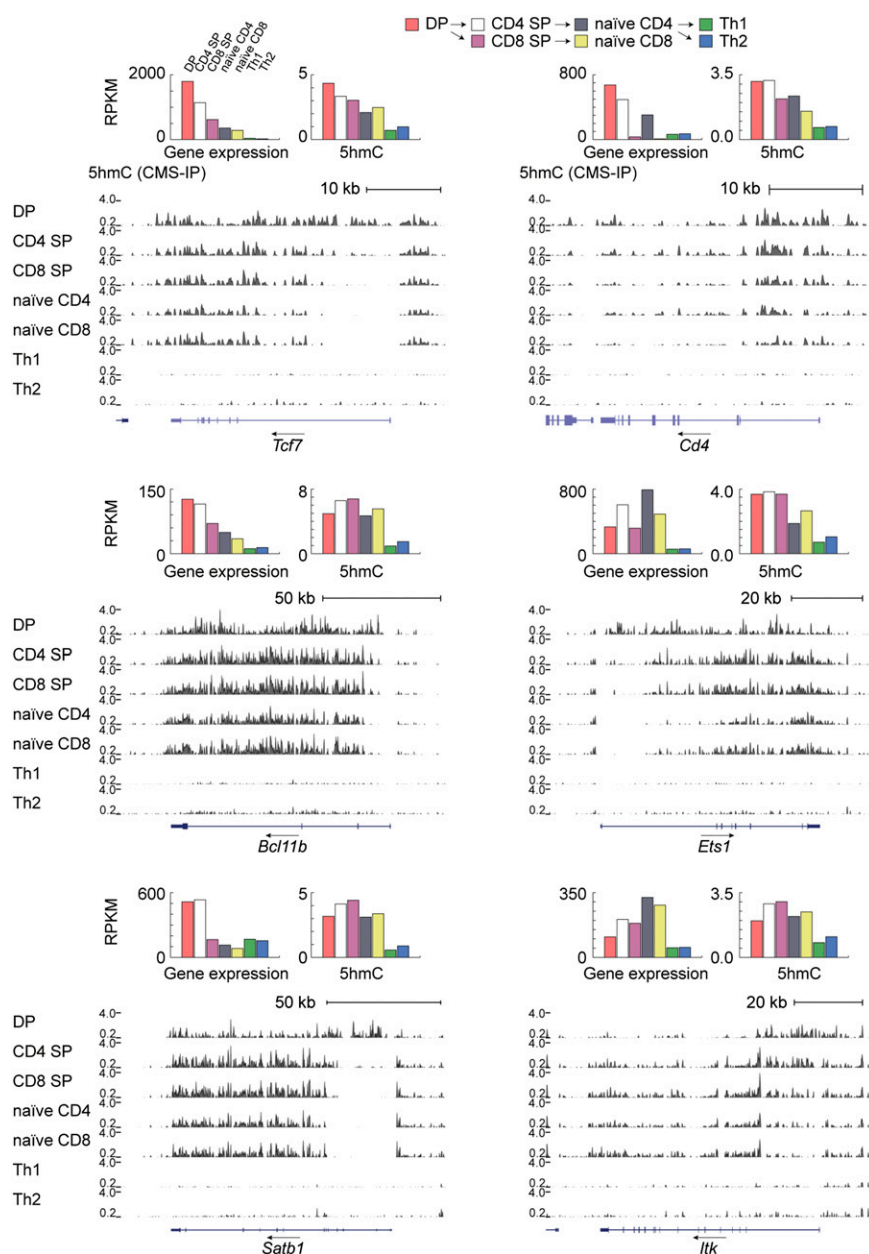


Fig. 7. Genome browser views of 5hmC distribution at additional genes with key roles in T-cell biology. Arrows show the direction of transcription. Bar graphs depict RPKM values summed over the gene body (TSS to TTS, y axis) for gene expression and 5hmC in each of the seven cell subtypes. (Left) The genes encoding the transcription factors *Tcf7* and *Bcl11b* and the chromatin-associated protein *Satb1* are most highly expressed in DP T cells, and their expression is considerably diminished in progeny CD4 and CD8 SP cells; notably, however, 5hmC levels either diminish more slowly (*Tcf7*) or increase slightly (*Bcl11b*, *Satb1*) from DP to SP T cells. (Right) Genes encoding proteins implicated in T-cell receptor signaling during T-cell development also show gene-body 5hmC at early but not developmental stages that is almost extinguished in terminally differentiated Th1 and Th2 despite continuing expression (*Cd4*, *Ets1*, *Itk*).

affect chromatin conformation and gene expression by recruiting “reader” proteins that recognize these modifications (29, 49, 50). 5hmC is a particularly stable and abundant mark, comprising ~5–10, 40, and ~1% of total 5mC in ES cells, Purkinje neurons, and immune cells, respectively (47, 51). In consequence, the relation between 5mC and 5hmC is not a simple one: 5mC is a substrate for 5hmC, but any single TET protein contributes only partially to the generation of 5hmC (30), and the existence of three distinct oxi-mC modifications adds to the complex relationship of 5mC to oxi-mC (reviewed in ref. 9).

In conclusion, we have mapped the distribution of 5hmC, an important epigenetic modification, in developing and differentiating T cells. We show that 5hmC is a reliable marker for actively tran-

scribed genes and for active enhancers, especially in cells that can be considered precursors in a specific developmental transition. By providing a comprehensive map of 5hmC during the commitment and specification of DP cells toward the CD4 and CD8 lineages, our study sets the stage for a systematic dissection of the function of 5hmC in T-cell development and function, expands our understanding of the T-cell epigenome, and introduces an additional parameter that will need to be taken into consideration in future studies of gene expression in T cells and other immune cells.

Experimental Procedures

Enrichment-Based Detection of 5hmC. We used the abundant DP thymocytes to compare two methods for genome-wide 5hmC mapping: the CMS-IP

method developed in our laboratory (52) and a method similar to GLIB (53) for specific biotinylation of 5hmC and subsequent isolation of biotinylated DNA fragments using streptavidin beads (28). The two methods showed significant overlap (*SI Appendix, Fig. S3 A–C*). For the other six cell subtypes, we chose the CMS-IP method because it can also provide insight into the methylation status of individual cytosines in the immunoprecipitated DNA fragments.

Isolation of Genomic DNA. Genomic DNA was prepared by lysing T cells, followed by treatment with RNase A (Qiagen) for 1 h at 37 °C and then by overnight treatment with proteinase K (Roche) at 55 °C with vigorous shaking as previously described (52). DNA was purified after sequential treatment with phenol, phenol/chlorophorm/isoamyl alcohol, chlorophorm/isoamyl alcohol (all obtained from Sigma), and then ethanol (Sigma) precipitation. DNA was resuspended in 10 mM Tris-Cl, pH 8.0, 0.1 mM EDTA and sheared to an average size of 165 bp by Adaptive Focused Acoustics using a Covaris S2 instrument.

Library Preparation of 5hmC-Enriched Genomic DNA. For CMS-IP samples, genomic DNA was spiked with *cl857 Sam7* λDNA (Promega) at a ratio of 200:1. End Repair was performed using the End Repair kit by Epicentre. A-tailing was performed using the large Klenow fragment enzyme by NEB. To perform the CMS-IP method, we used the TruSeq indexed adapters by Illumina because all of the Cs are methylated, making them compatible for use with bisulfite treatment. After adaptor ligation (using Quick Ligase by NEB), two rounds of Ampure Beads (Beckman Coulter) clean-up were performed to ensure removal of unligated adaptors. This step is crucial for this method before bisulfite conversion because accurate quantitation of the DNA is required to convert the optimum amount of DNA and ensure the successful outcome of the reaction. Therefore, less than 450 ng of genomic DNA was bisulfite-treated using the Methylcode kit by Invitrogen. In total, around 4 μg of genomic DNA were bisulfite-treated per cell subset. After bisulfite treatment, we quantified the DNA. A total of 2.5 μg was used for the CMS-IP whereas 25 ng were kept as input. The process of CMS-IP has been described in detail elsewhere (27, 52). The amplification of the IP sample as well as of

the input was performed using the uracil-insensitive Kapa HiFi HotStart Uracil+. Two rounds of Ampure Beads purification were performed to ensure full removal of primer dimers. The samples were sequenced using the Illumina HiSeq platform. Using CMS-IP, we mapped HERGs in the seven selected cell types. The number of properly paired reads for both methods in each cell type is shown in *SI Appendix, Table S1*, and the overlap between biological replicates in *SI Appendix, Fig. S3C*. Deep sequencing to achieve saturation was performed (*SI Appendix, Supplementary Methods Fig. 1*). To evaluate bisulfite conversion efficiency, we spiked unmethylated λ-phage DNA into our samples and measured the extent of C > T conversion, which reflects the efficiency of conversion of unmethylated cytosine to uracil after bisulfite treatment. The conversion efficiency was >99.8% in all cases (*SI Appendix, Table S2*).

Further details about the experimental procedures and the data analysis are presented in *SI Appendix*.

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- Zhou VW, Goren A, Bernstein BE (2011) Charting histone modifications and the functional organization of mammalian genomes. *Nat Rev Genet* 12(1):7–18.
- Smith ZD, Meissner A (2013) DNA methylation: Roles in mammalian development. *Nat Rev Genet* 14(3):204–220.
- Ooi SK, O'Donnell AH, Bestor TH (2009) Mammalian cytosine methylation at a glance. *J Cell Sci* 122(Pt 16):2787–2791.
- Lister R, et al. (2009) Human DNA methylomes at base resolution show widespread epigenomic differences. *Nature* 462(7271):315–322.
- Suzuki MM, Bird A (2008) DNA methylation landscapes: Provocative insights from epigenomics. *Nat Rev Genet* 9(6):465–476.
- Stadler MB, et al. (2011) DNA-binding factors shape the mouse methylome at distal regulatory regions. *Nature* 480(7378):490–495.
- Deaton AM, Bird A (2011) CpG islands and the regulation of transcription. *Genes Dev* 25(10):1010–1022.
- Laurent L, et al. (2010) Dynamic changes in the human methylome during differentiation. *Genome Res* 20(3):320–331.
- Pastor WA, Aravind L, Rao A (2013) TETonic shift: Biological roles of TET proteins in DNA demethylation and transcription. *Nat Rev Mol Cell Biol* 14(6):341–356.
- Wu H, Zhang Y (2014) Reversing DNA methylation: Mechanisms, genomics, and biological functions. *Cell* 156(1–2):45–68.
- Tahiliani M, et al. (2009) Conversion of 5-methylcytosine to 5-hydroxymethylcytosine in mammalian DNA by MLL partner TET1. *Science* 324(5929):930–935.
- Ito S, et al. (2011) Tet proteins can convert 5-methylcytosine to 5-formylcytosine and 5-carboxylcytosine. *Science* 333(6047):1300–1303.
- He YF, et al. (2011) Tet-mediated formation of 5-carboxylcytosine and its excision by TDG in mammalian DNA. *Science* 333(6047):1303–1307.
- Maiti A, Drohat AC (2011) Thymine DNA glycosylase can rapidly excise 5-formylcytosine and 5-carboxylcytosine: Potential implications for active demethylation of CpG sites. *J Biol Chem* 286(41):35334–35338.
- Zhang L, et al. (2012) Thymine DNA glycosylase specifically recognizes 5-carboxylcytosine-modified DNA. *Nat Chem Biol* 8(4):328–330.
- Koh KP, Rao A (2013) DNA methylation and methylcytosine oxidation in cell fate decisions. *Curr Opin Cell Biol* 25(2):152–161.
- Kohli RM, Zhang Y (2013) TET enzymes, TDG and the dynamics of DNA demethylation. *Nature* 502(7472):472–479.
- Ziller MJ, et al. (2013) Charting a dynamic DNA methylation landscape of the human genome. *Nature* 500(7463):477–481.
- Tanaka H, et al. (2013) Epigenetic Thpok silencing limits the time window to choose CD4(+) helper-lineage fate in the thymus. *EMBO J* 32(8):1183–1194.
- Huang Y, et al. (2010) The behaviour of 5-hydroxymethylcytosine in bisulfite sequencing. *PLoS ONE* 5(1):e8888.
- Carpenter AC, Bosselut R (2010) Decision checkpoints in the thymus. *Nat Immunol* 11(8):666–673.
- Kanno Y, Vahedi G, Hirahara K, Singleton K, O'Shea JJ (2012) Transcriptional and epigenetic control of T helper cell specification: Molecular mechanisms underlying commitment and plasticity. *Annu Rev Immunol* 30:707–731.
- Rothenberg EV, Taghon T (2005) Molecular genetics of T cell development. *Annu Rev Immunol* 23:601–649.
- Zhu J, Yamane H, Paul WE (2010) Differentiation of effector CD4 T cell populations (*). *Annu Rev Immunol* 28:445–489.
- Shen L, et al. (2013) Genome-wide analysis reveals TET- and TDG-dependent 5-methylcytosine oxidation dynamics. *Cell* 153(3):692–706.
- Song CX, et al. (2013) Genome-wide profiling of 5-formylcytosine reveals its roles in epigenetic priming. *Cell* 153(3):678–691.
- Pastor WA, et al. (2011) Genome-wide mapping of 5-hydroxymethylcytosine in embryonic stem cells. *Nature* 473(7347):394–397.
- Song CX, et al. (2011) Selective chemical labeling reveals the genome-wide distribution of 5-hydroxymethylcytosine. *Nat Biotechnol* 29(1):68–72.
- Mellén M, Ayata P, Dewell S, Kriacounis S, Heintz N (2012) MeCP2 binds to 5hmC enriched within active genes and accessible chromatin in the nervous system. *Cell* 151(7):1417–1430.
- Huang Y, et al. (2014) Distinct roles of the methylcytosine oxidases Tet1 and Tet2 in mouse embryonic stem cells. *Proc Natl Acad Sci USA* 111(4):1361–1366.
- Wei G, et al. (2011) Genome-wide analyses of transcription factor GATA3-mediated gene regulation in distinct T cell types. *Immunity* 35(2):299–311.
- Zhang JA, Mortazavi A, Williams BA, Wold BJ, Rothenberg EV (2012) Dynamic transformations of genome-wide epigenetic marking and transcriptional control establish T cell identity. *Cell* 149(2):467–482.
- Zhang J, et al. (2012) Harnessing of the nucleosome-remodeling-deacetylase complex controls lymphocyte development and prevents leukemogenesis. *Nat Immunol* 13(1):86–94.
- Yu M, et al. (2012) Base-resolution analysis of 5-hydroxymethylcytosine in the mammalian genome. *Cell* 149(6):1368–1380.
- Shen Y, et al. (2012) A map of the cis-regulatory sequences in the mouse genome. *Nature* 488(7409):116–120.
- Heintzman ND, et al. (2009) Histone modifications at human enhancers reflect global cell-type-specific gene expression. *Nature* 459(7243):108–112.
- Heintzman ND, et al. (2007) Distinct and predictive chromatin signatures of transcriptional promoters and enhancers in the human genome. *Nat Genet* 39(3):311–318.
- Creyghton MP, et al. (2010) Histone H3K27ac separates active from poised enhancers and predicts developmental state. *Proc Natl Acad Sci USA* 107(50):21931–21936.
- Rada-Iglesias A, et al. (2011) A unique chromatin signature uncovers early developmental enhancers in humans. *Nature* 470(7333):279–283.
- Wang L, et al. (2008) Distinct functions for the transcription factors GATA-3 and ThPOK during intrathymic differentiation of CD4(+) T cells. *Nat Immunol* 9(10):1122–1130.
- Wang Y, et al. (2013) GATA-3 controls the maintenance and proliferation of T cells downstream of TCR and cytokine signaling. *Nat Immunol* 14(7):714–722.

42. Tai TS, Pai SY, Ho IC (2013) GATA-3 regulates the homeostasis and activation of CD8+ T cells. *J Immunol* 190(1):428–437.
43. Cruz-Guilloty F, et al. (2009) Runx3 and T-box proteins cooperate to establish the transcriptional program of effector CTLs. *J Exp Med* 206(1):51–59.
44. Gan H, et al. (2013) Dynamics of 5-hydroxymethylcytosine during mouse spermatogenesis. *Nat Commun* 4:1995.
45. Deplus R, et al. (2013) TET2 and TET3 regulate GlcNAcylation and H3K4 methylation through OGT and SET1/COMPASS. *EMBO J* 35(5):645–655.
46. Ko M, et al. (2011) Ten-Eleven-Translocation 2 (TET2) negatively regulates homeostasis and differentiation of hematopoietic stem cells in mice. *Proc Natl Acad Sci USA* 108(35):14566–14571.
47. Ko M, et al. (2010) Impaired hydroxylation of 5-methylcytosine in myeloid cancers with mutant TET2. *Nature* 468(7325):839–843.
48. Tsagaratou A, Rao A (2013) TET proteins and 5-methylcytosine oxidation in the immune system. *Cold Spring Harb Symp Quant Biol* 78:1–10.
49. Spruijt CG, et al. (2013) Dynamic readers for 5-(hydroxy)methylcytosine and its oxidized derivatives. *Cell* 152(5):1146–1159.
50. Iurlaro M, et al. (2013) A screen for hydroxymethylcytosine and formylcytosine binding proteins suggests functions in transcription and chromatin regulation. *Genome Biol* 14(10):R119.
51. Kriaucionis S, Heintz N (2009) The nuclear DNA base 5-hydroxymethylcytosine is present in Purkinje neurons and the brain. *Science* 324(5929):929–930.
52. Huang Y, Pastor WA, Zepeda-Martinez JA, Rao A (2012) The anti-CMS technique for genome-wide mapping of 5-hydroxymethylcytosine. *Nat Protoc* 7(10):1897–1908.
53. Pastor WA, Huang Y, Henderson HR, Agarwal S, Rao A (2012) The GLIB technique for genome-wide mapping of 5-hydroxymethylcytosine. *Nat Protoc* 7(10):1909–1917.

Methods

Mice: 4-6 weeks old female C57BL/6 mice obtained from Jackson labs were used for cell isolation. Female Foxp3-IRES-GFP reporter mice (1), backcrossed to B6/C57 background for 10 generations, were used for the isolation of naïve CD4 and naïve CD8 cells for the RNAseq experiments. The mice were housed in pathogen-free animal facility in the La Jolla Institute for Allergy and Immunology and were used according to protocols approved by the Institutional Animal Care and use Committee.

Preparation of cells: Subsets of thymocytes were isolated by cell sorting as previously described (2), after cell surface staining using CD4 (GK1.5), CD8 (53-6.7), CD3 ϵ (145-2C11), CD24 (M1/69) (all from Biolegend). DP cells: CD4⁺CD8^{int/hi}; CD4 SP cells: CD4CD3^{hi}, CD24^{int/lo}; CD8 SP cells: CD8^{int/hi} CD4 CD3^{hi}, CD24^{int/lo} (**Fig S2**). Peripheral subsets were isolated after pooling spleen and lymph nodes. T cells were enriched by negative isolation using Dynabeads (Dynabeads untouched mouse T cells, 11413D, Invitrogen). After surface staining for CD4 (GK1.5), CD8 (53-6.7), CD62L (MEL-14), CD25 (PC61) and CD44 (IM7), naïve CD4⁺CD62L^{hi}CD25⁻CD44^{lo} and naïve CD8⁺CD62L^{hi}CD25⁻CD44^{lo} were obtained by sorting (BD FACS Aria). Additionally, for the RNAseq experiments, CD4 and CD8 naïve cells were isolated by sorting T cells from the Foxp3-IRES-GFP mice: CD4⁺CD62L^{hi}CD25⁻CD44^{lo} GFP(FOXP3)⁻ and CD8⁺CD62L^{hi}CD25⁻CD44^{lo} GFP(FOXP3)⁻ (antibodies were from Biolegend). In some cases, naïve CD4 cells were cultured in vitro under Th1 or Th2 polarizing conditions (3, 4). Briefly, for Th1 polarization naïve CD4 T cells were cultured in the presence of 10 ng/ml IL12, 10 μ g/ml anti-IL-4, 1 μ g/ml anti CD3 (clone 2C11) and 1 μ g/ml anti-CD28 (clone 37.51) for 2 days. In the case of Th2 polarization naïve CD4 T cells were cultured in the presence of 1000 U/ ml IL-4, 5 μ g/ml anti-IFN- γ , 3 μ g/ml anti-IL-12, 1 μ g/ml anti CD3 (clone 2C11) and 1 μ g/ml anti-CD28 (clone 37.51) for 2 days. On day 3 of culture, cells were removed from TCR/ costimulation conditions and expanded in the presence of 20 U/mL IL-2 for Th1 and 10 U/mL IL-2 for Th2 polarization conditions for 4 days. Data analysis was performed using FlowJo (Tree Star Inc).

Intracellular staining for IFN- γ and IL-4: On day 6 of in vitro culture, cells were restimulated for 5 hours in the presence of 500 nM PMA (Calbiochem) and 1 μ M ionomycin (Calbiochem). During the last 3 hours of culture, 10 μ g/ ml of Brefeldin A (Sigma) was added. Intracellular staining was performed for IFN- γ and IL-4 using the Cytofix/Cytoperm kit (BD Biosciences). Data analysis was performed using FlowJo (Tree Star Inc).

Enrichment-based detection of 5-hydroxymethylcytosine (5hmC):

Biotin-glucosyl tagging and enrichment of 5hmC (Biotin-gmC, a variant of GLIB (5)): For specific biotinylation of 5hmC in DP T cells, we used the Hydroxymethyl Collector kit (Active Motif, Carlsbad, CA) to selectively label 5hmC bases with glucose and biotin moieties to form biotin-N3-5-gmC as previously described(6). To ensure efficient biotinylation, 2 μ g of genomic DNA were biotinylated per reaction. In this case we used the 5500 SoliD fragment library preparation kit from Applied Biosystems in order to prepare the library and the 5500 SOLiD Library indexed adaptors 1-16 according to the

manufacturer's instructions. The samples were sequenced using the SOLiD 5500 platform.

Chromatin Immunoprecipitation and library preparation: 10 million sorted DP T cells were fixed for 10 min in 1% PFA (Pierce), quenched with glycine and washed twice with PBS containing protease inhibitors (Roche) and sodium butyrate (to inhibit deacetylation) (Sigma). These inhibitors were present in all the following steps. Cells were lysed on ice in Lysis buffer (50 mM Hepes pH 7.9, 1 mM EDTA pH 8.0, 0.5 mM EGTA pH 8.0, 140 mM NaCl, 10% Glycerol, 0.5% NP-40, 0.25 % Triton, protease inhibitors and 5 mM sodium butyrate) in order to obtain nuclei, that were washed twice with washing buffer (10 mM Tris-Cl pH 8.0, 200 mM NaCl, 1 mM EDTA pH 8.0, 0.5 mM EGTA pH 8.0, 1x protease inhibitors, 5 mM sodium butyrate) and resuspended in shearing buffer (0.1% SDS, 1 mM EDTA pH 8.0, 1x protease inhibitors, 5 mM sodium butyrate). Then, chromatin was sheared to an average size of 200 bp. Half of the material was used (equivalent to 5 million cells) per immunoprecipitation reaction. 10% was saved as input. Briefly, 2 µg of anti-histone H3acetylK27 (Abcam, ab 4729) was coupled to 30 µl Dynabeads protein G for immunoprecipitation (Invitrogen). The immunoprecipitation reaction was performed overnight (approximately 16 h) in RIPA buffer (50 mM Tris pH 8.0, 150 mM NaCl, 1 mM EDTA, 1 % NP-40, 0.1% SDS, 0.5% Deoxycholate). The next day, 2 washes were performed with RIPA buffer, 1 wash with High Salt Buffer (50 mM Tris pH 8.0, 500 mM NaCl, 1mM EDTA, 1 % NP-40, 0.1% SDS, 0.5% Deoxycholate) and one wash with TE. After the last wash with TE, DNA was eluted by resuspending the beads in elution buffer (100 mM NaHCO₃ and 1% SDS) with rotation for 40 min at room temperature. The eluted DNA from the IP reaction as well as the input DNA were treated with 5 µg of RNase A for 30 min to ensure removal of RNA. Then de-crosslinking reaction was performed overnight in the presence of proteinase K (Ambion) at 65 °C with shaking. De-crosslinked DNA was used to construct the library as described in the CMS-IP section, using the Illumina Truseq adaptors for the input and the IP sample.

RNA isolation and whole transcriptome library preparation for RNAseq: For naïve CD4 and CD8 samples, RNA was isolated using Trizol (Invitrogen). Subsequently ribosomal RNA was depleted by RiboZero (Epicentre) and for the following steps the guidelines for whole transcriptome library preparation from low input provided by SOLiD (Applied Biosystems by Life Technologies) were followed. Briefly, using the total RNA-seq kit by SOLiD, enzymatic fragmentation of RNA was performed, then purification (PureLink RNA Micro Kit, Invitrogen), hybridization and ligation, reverse transcription, purification and size selection of the produced cDNA and amplification of the size selected DNA were performed using Phusion. The libraries were sequenced using the SOLiD 5500 platform.

Quantitative analysis of 5hmC levels using dot blots: 50 ng genomic DNA samples were sheared using needle and treated with sodium bisulfite using the Methylcode kit (Invitrogen), following the guidelines described in the CMS-IP section. DNA was prepared using 2-fold serial dilutions in TE buffer and then denatured in 0.4 M NaOH/ 10 mM EDTA at 95°C for 10 min and followed by adding an equal volume of cold 2M ammonium acetate (pH 7.0) on ice for 10 min. Denatured DNA samples were spotted on a nitrocellulose membrane in an assembled Bio-Dot apparatus (Bio-Rad) according to

the manufacturer's instructions. The membrane was washed with 2XSSC buffer and then vacuum-baked at 80° C for 2 hrs. Then the membrane was blocked with 5% non-fat milk for 1 hr and incubated with rabbit antisera against CMS detected by HRP-conjugated secondary antibody and enhanced chemiluminescence.

DATA ANALYSIS

Biotin-gmC (GLIB) data analysis: The GLIB and input reads were mapped against mm9 in color-space using Bowtie (7). Enriched regions (ERGs) relative to input DNA were detected using the “findPeaks” routine in HOMER (8) with the “histone” mode and default parameter values.

Intragenic levels of GLIB and input DNA were quantified by counting the number of reads falling into RefSeq genes defined by the corresponding annotated transcription start and termination sites. The RPKM values were calculated based on the read counts in the GLIB samples. The log fold enrichment of IP DNA was calculated against input DNA.

CMS-IP data analysis: The CMS-IP and input reads were mapped against mm9 and lambda phage DNA using the Bismark mapping tool (9). The mapping was done using the Bowtie 2 (10) backend in the paired-end mode with the following parameter values: -l 0 -X 600 -N 0. Before pooling biological replicates their similarity was assessed using the method described below. Enriched regions (ERGs) relative to input DNA were detected using the “findPeaks” routine in HOMER (8) with the “histone” mode and default parameter values.

Intragenic levels of CMS-IP and input DNA were quantified by counting the number of reads falling into RefSeq genes defined by the corresponding annotated transcription start and termination sites. The RPKM values were calculated based on the read counts in the CMS-IP samples. The log fold enrichment of IP DNA was calculated against input DNA.

While calculating the average signal depicted in **Fig. 1c-d** the genes were extended 10% of the gene length downstream and upstream from transcription start site and transcription termination site, respectively. These extended gene regions were divided into 60 distinct intervals and the 5hmC and input DNA content of the bins was quantified (RPKM). For each of the bins the enrichment of 5hmC relative to input DNA was quantified followed by a step where the average enrichment was calculated over the considered genes.

RNA-seq data analysis: The sequencing reads given either in base-space or color-space were mapped to the mm9 genome and exon-exon junctions using Tophat (11). The exon-exon junctions were derived from the RefSeq gene annotations downloaded on June 16, 2012 (12). In case of biological replicates they were pooled for subsequent analysis. The number of reads falling into each RefSeq gene was quantified using the HTSeq-count script (13). The CD4 and CD8 naïve RNA-seq libraries were constructed from total RNA, and thus the small nucleolar RNA transcripts were discarded from the

analysis. The RPKM values were calculated based on the read counts using a custom script.

ChIP-seq data analysis: The ChIP-seq sequencing libraries were mapped against mm9 using Bowtie (7). Reads with identical sequences were filtered and only one was retained for subsequent analysis. Fragment size estimation was done using HOMER (8). In case of biological replicates they were pooled for subsequent analysis.

Intragenic levels of H3K4me3, H3K27me3, H3K36me3 and PolII were quantified by counting the number of reads falling into RefSeq genes defined by the corresponding annotated transcription start and termination sites. The RPKM values were calculated based on the read counts. The above procedure was done separately for IP and input DNA samples. The fold enrichment of IP DNA was calculated against input DNA.

Biological and experimental variation between hydroxymethylomes: The mm9 genome was divided into distinct 1,000 bp windows and the amount of the GLIB and CMS-IP signal within each of the intervals is quantified using the RPKM measure. The concordance in the window-base resolution between the hydroxymethylomes measured using the two alternative experimental approaches or between different biological samples was visualized using density plot representations. The degree of concordance was quantified by calculating Pearson's correlation coefficient r .

Bisulfite conversion efficiency: The samples were spiked with unmethylated lambda phage DNA to enable an accurate estimation of bisulfite conversion efficiency. The CMS-IP sequencing libraries were mapped against the sequence of lambda phage DNA using the Bismark mapping tool (9). The Bismark output was used to assess the bisulfite conversion efficiency of cytosines in CpG, CHG and CHH context within lambda phage DNA.

Saturation analysis: Saturation of the CMS-IP paired-end sequencing runs (**SI Appendix, Supplementary Methods Fig. 1**) was determined using the "saturation" routine in the MEDIPS package (version 1.10.0) (14) with the following parameter values: `uniq=TRUE`, `window_size=100`, `rank=FALSE`, `empty_bins=TRUE`, `paired=TRUE`.

Clustering analysis: Intragenic 5hmC (CMS-IP) levels across the cell types were quantified as described above. Genes shorter than 1,000 bp were discarded from the clustering analysis for focusing on the genes with more reliable intragenic 5hmC levels. In addition, it was required that the genes had considerable levels of intragenic 5hmC ($\log_2$ fold-change > 1).

In generating **Fig. 5a**, the hierarchical clustering was applied to $\log_2$ fold-change signals using the Euclidean distance and the complete linkage method. The cut threshold was defined to be 70% of the maximum linkage. To stabilize the clustering result, the large 5hmC enrichments ($\log_2$ fold-change > 3) and depletions ($\log_2$ fold-change < 0) were truncated to 3 and 0, respectively.

Dynamics of 5hmC and gene expression: Intragenic 5hmC (CMS-IP) levels across the cell types were quantified as described above. Genes shorter than 1,000 bp were discarded from the analysis for focusing on the genes with more reliable intragenic 5hmC levels. In addition, in **Fig. 5c** it was required that the genes had considerable

levels of intragenic 5hmC ($\log_2$ fold-change > 2) at least in one of the two cell types under investigation. Additionally, in **Fig. 5c**, we required that the logarithmic fold change of 5hmC (5hmC $\log_2$ fold change) is greater than 0.5 and the logarithmic fold change in gene expression (RPKM $\log_2$ fold-change) greater than 2. The degree of correlation between the changes in gene expression and intragenic 5hmC was quantified by calculating Spearman's rank correlation coefficient.

Public datasets: *SI Appendix, Table S3* lists the accession codes of the utilized data sets and corresponding PubMed identifiers of the publications in which data were published. The raw data sets were downloaded from the NCBI repository GEO database. The RNA-seq and ChIP-seq data sets were preprocessed and analyzed as described above. Briefly, we mined publicly available datasets for gene expression data on the remaining five subsets (DP, CD4 and CD8 SP, Th1 and Th2 cells) as well as data on the genome-wide distribution of histone marks and RNA polymerase II (Suppl Table 3) (2, 15-18).

Gene enrichment analysis: Enrichment of GO (Gene Ontology) categories (*SI Appendix, Table S8*) among the gene clusters in **Figure 5a** was assessed using the GeneTrail web tool (19) with the default parameters. The background set consisted all the RefSeq genes without snoRNAs ($N = 23,167$).

Those GO categories having one or more of the following strings "T cell", "lymphocyte", "immune", "leukocyte", "hemopoiesis", "interleukin", "thymic", "thymus", "thymocyte", "interferon gamma", "antigen" or "MHC" in their name were defined to be immune-related (*SI Appendix, Fig. S5; Table S8*).

Supplementary Figure Legends

Figure S1. Summary of the stages of T cell commitment in the thymus and Th1 and Th2 differentiation in the periphery, highlighting the key transcription factors that regulate these processes. In the thymus, positively selected DP (double-positive, CD4⁺CD8⁺) T cells give rise to CD4 and CD8 SP thymocytes; in the periphery, CD4⁺ naïve T cells differentiate towards diverse helper T cell lineages with distinct functions, including the Th1 and Th2 T helper subsets investigated in this study. Key factors involved in transcriptional regulatory networks that shape T cell identity are shown: *red*, factors expressed at each stage; *black*, factors that are not expressed or expressed at low levels. The major lineage-specifying factor for each subset is highlighted in yellow: ThPOK for CD4 SP cells, RUNX3 for CD8 SP cells and Th1 cells, and GATA3 for Th2 cells. The cross talk between transcription factors, which skews the balance of differentiation in favor of one lineage (*red arrows*) while repressing differentiation towards the opposing lineage (*blue terminated lines*), is indicated.

Figure S2. Strategies for cell isolation by fluorescence-activated cell sorting (FACS) and in vitro polarization towards T helper lineages. **a**, Thymocytes were isolated from C57BL/6 mice and surface stained for CD4, CD8, CD24 and CD3. Total DP T cells are gated as shown. Mature CD4 and CD8 SP T cells were isolated based on CD24 and CD3 expression: CD4 SP cells were identified as CD8⁻CD4⁺ CD24^{low}CD3⁺ cells and CD8 SP T cells as CD8⁺CD4⁻CD24^{low}CD3⁺ cells. **b**, Enriched peripheral T cells were stained for surface markers CD4, CD8a, CD25, CD62L and CD44 (see *Methods*). Naïve CD4⁺ T cells were obtained by gating on CD4⁺ T cells and selecting for CD25⁻CD62L⁺CD44^{low} cells; for naïve CD8⁺ T cells we obtained CD62L⁺CD44^{low} cells. **c**, Truly naïve CD4 cells were polarized towards the Th1 and Th2 lineages in vitro in the presence of appropriate cytokines and TCR co-stimulation, then expanded in vitro until day 6. To assess the effectiveness of differentiation, cells were re-stimulated with PMA/ionomycin and evaluated for production of the signature cytokines for each lineage by intracellular staining and subsequent flow cytometric analysis (see *Methods*).

Figure S3. Concordance between GLIB and CMS-IP and biological reproducibility of CMS-IP. **a**, Examples of the similar results obtained with the GLIB and CMS-IP techniques, shown by comparison of genome browser tracks for selected genes (*Bcl11b*, *Cd4*, *Cd8a*) in DP T cells. **b**, Concordance of the GLIB and CMS-IP techniques. To compare the GLIB and CMS-IP datasets obtained for DP T cells, we divided the mm9 genome into distinct 1,000 bp intervals and quantified the amount of the GLIB and CMS-IP signal within each of the intervals using the RPKM measure. The concordance between the values obtained using the two different approaches is visualized using a density plot representation. The methods show overlap as revealed by the significant positive Pearson's correlation coefficient (exact permutation test for testing the null hypothesis that there is no correlation, two tailed, * $p < 2.2 \times 10^{-16}$). **c**, Comparison of the GLIB and CMS-IP datasets obtained for DP T cells, in this case focusing on intragenic regions (see *Methods*). The Spearman's rank correlation coefficient is depicted (exact permutation test for testing the null hypothesis that there is no correlation, two tailed, * $p < 2.2 \times 10^{-16}$). **d**, Similarity of the 5hmC landscapes obtained using different biological samples, studied as in **b**. Notice the improved concordance with increased 5hmC levels in **b-d**.

Figure S4. Quantification of 5hmC upon in vitro polarization of naïve CD4 T cells towards the Th1 and Th2 lineages. 5hmC levels in naïve CD4 T cells and in *in vitro*

differentiated Th1 and Th2 T cells at different time points were quantified by DNA dot-blot using anti-CMS antiserum and a DNA standard (see *Methods*). 2-fold dilutions of genomic DNA are shown. Note the abrupt drop of 5hmC in Th1 and Th2 cells differentiated for 5 days.

Figure S5. Dynamic intragenic 5hmC distribution during T cell lineage commitment and specification is observed in genes with immunological function. Heat map representation of the enrichment or depletion of clusters 1, 2, 4 and 6 shown in figure 5a for immune-related GO categories (see *Methods*). In total 141 enriched GO categories were evaluated. A selection of representative categories is depicted in the left side of the figure.

Figure S6. Genome browser views of 5hmC distribution in the studied T cells at genes encoding transcription factors that specify alternative cell lineages. Bar graphs (*top*) depict RPKM values summed over the gene body (TSS to TTS) (*y-axis*) for gene expression and 5hmC in each of the 7 cell subtypes. The figure emphasizes the lack of 5hmC (*black*) at the *Cebpa*, *Gata1*, *Pax5*, which encode factors with lineage-specifying roles during myeloid (*Cebpa*), erythrocyte (*Gata1*), B cell (*Pax5*) differentiation. All these genes were expressed at very low levels in all the T cell subsets as evaluated by RNA-seq, consistent with the absence of 5hmC.

SUPPLEMENTARY TABLES

Table S1: Mapping statistics of the generated CMS-IP and GLIB samples. The number of properly paired reads per sample is given.

Table S2: Bisulfite conversion efficiency of cytosines in CpG, CHG and CHH context, estimated using spiked-in unmethylated lambda phage DNA.

Table S3: The GEO accession codes of the previously published data sets utilized in this study, along with PubMed identifiers of the corresponding publications.

Table S4: Numbers of genes categorized based on their expression levels in different T cell subsets.

Table S5: Number of HERGs in different intragenic and intergenic regions for each T cell subset.

Table S6: List of genes belonging to the clusters depicted in **Fig. 5a**, and their intragenic 5hmC levels in DP, CD4 SP, CD8 SP, naïve CD4 and naïve CD8T cell subsets.

Table S7: List of genes shown in **Fig. 5c** that show same or opposite direction in the gain of 5hmC and gene expression.

Table S8: Listing of GO categories used and enumeration of genes/ cluster that show enrichment/ depletion for each category, depicted in **SI Appendix, Figure S5**.

SUPPLEMENTARY METHODS FIGURE LEGENDS

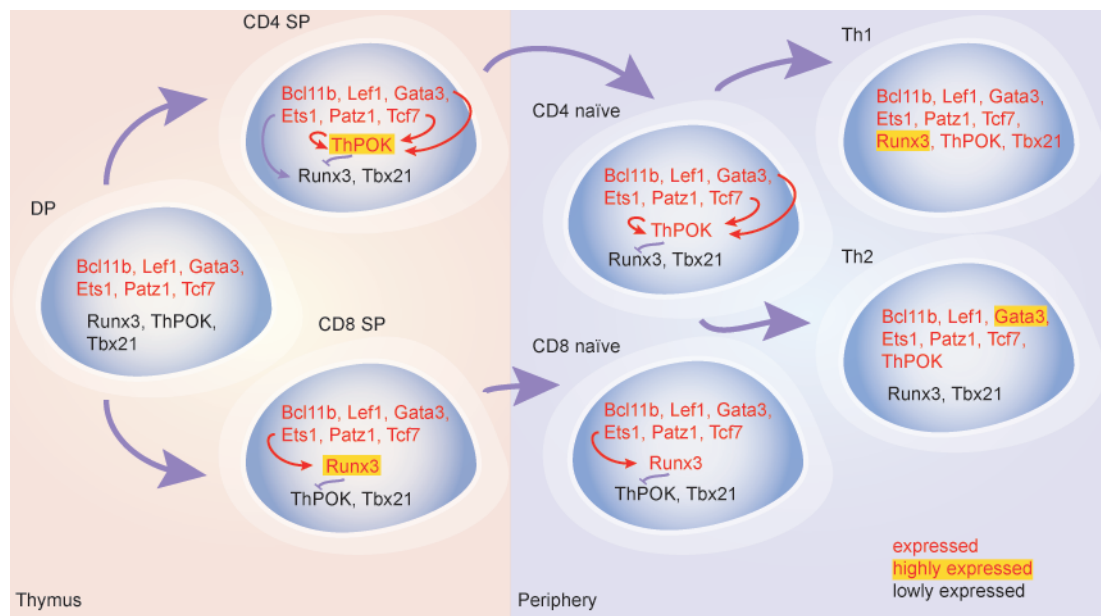
Supplementary Methods Fig. 1. Saturation analysis of the CMS-IP data for different T cell subsets. Depth of coverage was evaluated for the biological replicates of the different T cell subsets. Saturation level of each CMS-IP sample is estimated using the saturation routine in the MEDIPS package (see *Methods*). Saturation analysis of the mapped anti-CMS IP sequencing data shows sufficient saturation for all the subsets and

the biological replicates examined. In all cases, a minimum of 0.98 saturation correlation was observed, whereas the estimated correlation was at least 0.99.

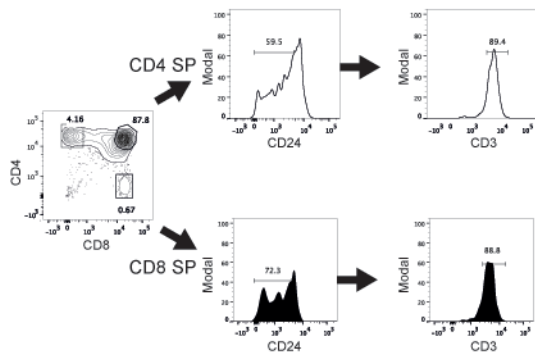
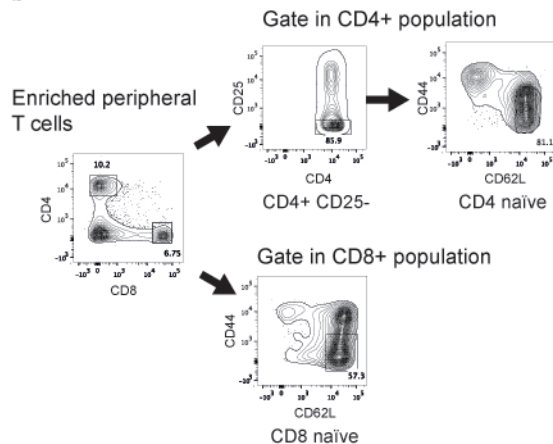
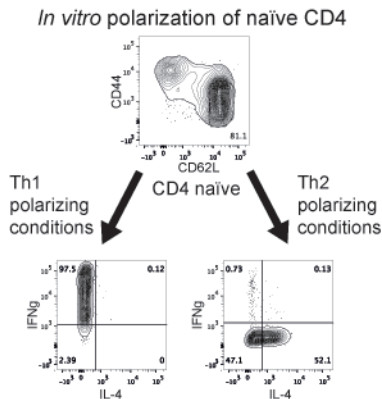
References

1. Haribhai D, *et al.* (2007) Regulatory T cells dynamically control the primary immune response to foreign antigen. *Journal of immunology* 178(5):2961-2972.
2. Kirigin FF, *et al.* (2012) Dynamic microRNA gene transcription and processing during T cell development. *Journal of immunology* 188(7):3257-3267.
3. Djuretic IM, *et al.* (2007) Transcription factors T-bet and Runx3 cooperate to activate Ifng and silence Il4 in T helper type 1 cells. *Nature immunology* 8(2):145-153.
4. Bandukwala HS, *et al.* (2012) Selective inhibition of CD4+ T-cell cytokine production and autoimmunity by BET protein and c-Myc inhibitors. *Proceedings of the National Academy of Sciences of the United States of America* 109(36):14532-14537.
5. Lister R, *et al.* (2013) Global epigenomic reconfiguration during mammalian brain development. *Science* 341(6146):1237905.
6. Song CX, *et al.* (2011) Selective chemical labeling reveals the genome-wide distribution of 5-hydroxymethylcytosine. *Nature biotechnology* 29(1):68-72.
7. Langmead B, Trapnell C, Pop M, & Salzberg SL (2009) Ultrafast and memory-efficient alignment of short DNA sequences to the human genome. *Genome biology* 10(3):R25.
8. Heinz S, *et al.* (2010) Simple combinations of lineage-determining transcription factors prime cis-regulatory elements required for macrophage and B cell identities. *Molecular cell* 38(4):576-589.
9. Krueger F & Andrews SR (2011) Bismark: a flexible aligner and methylation caller for Bisulfite-Seq applications. *Bioinformatics* 27(11):1571-1572.
10. Langmead B & Salzberg SL (2012) Fast gapped-read alignment with Bowtie 2. *Nature methods* 9(4):357-359.
11. Trapnell C, Pachter L, & Salzberg SL (2009) TopHat: discovering splice junctions with RNA-Seq. *Bioinformatics* 25(9):1105-1111.
12. Pruitt KD, Tatusova T, Brown GR, & Maglott DR (2012) NCBI Reference Sequences (RefSeq): current status, new features and genome annotation policy. *Nucleic acids research* 40(Database issue):D130-135.
13. Anders S & Huber W (2010) Differential expression analysis for sequence count data. *Genome biology* 11(10):R106.
14. Chavez L, *et al.* (2010) Computational analysis of genome-wide DNA methylation during the differentiation of human embryonic stem cells along the endodermal lineage. *Genome research* 20(10):1441-1450.
15. Wei G, *et al.* (2011) Genome-wide analyses of transcription factor GATA3-mediated gene regulation in distinct T cell types. *Immunity* 35(2):299-311.

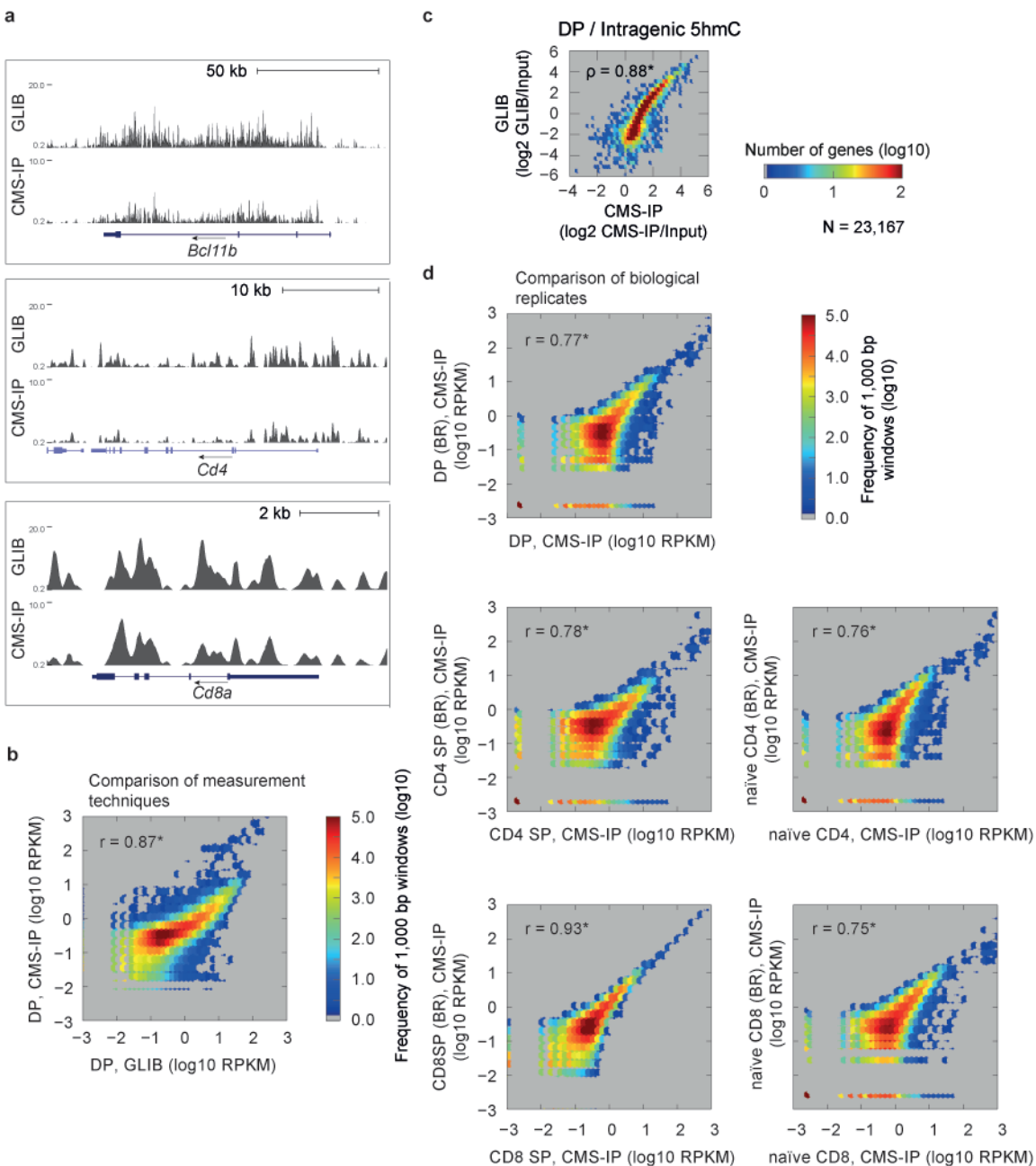
16. Wei G, *et al.* (2009) Global mapping of H3K4me3 and H3K27me3 reveals specificity and plasticity in lineage fate determination of differentiating CD4+ T cells. *Immunity* 30(1):155-167.
17. Zhang J, *et al.* (2012) Harnessing of the nucleosome-remodeling-deacetylase complex controls lymphocyte development and prevents leukemogenesis. *Nature immunology* 13(1):86-94.
18. Zhang JA, Mortazavi A, Williams BA, Wold BJ, & Rothenberg EV (2012) Dynamic transformations of genome-wide epigenetic marking and transcriptional control establish T cell identity. *Cell* 149(2):467-482.
19. Backes C, *et al.* (2007) GeneTrail--advanced gene set enrichment analysis. *Nucleic acids research* 35(Web Server issue):W186-192.



Supplementary Figure 1

a**b****c**

Supplementary Figure 2



Supplementary Figure 3

5hmC (anti-CMS DNA dot blot)

Standard DNA

Naïve CD4

Th1 18 hours

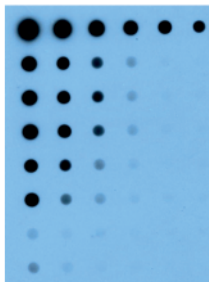
Th2 18 hours

Th1 36 hours

Th2 36 hours

Th1 day 5

Th2 day 5

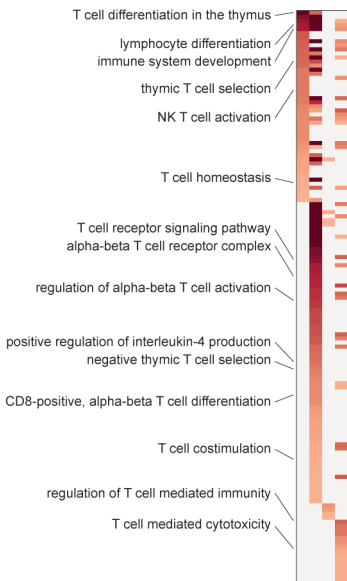


Serial dilution 1:2

Supplementary Figure 4

Immune-related GO categories enriched in at least one gene cluster

GO categories, N = 141

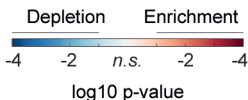


Cluster 1, N = 331

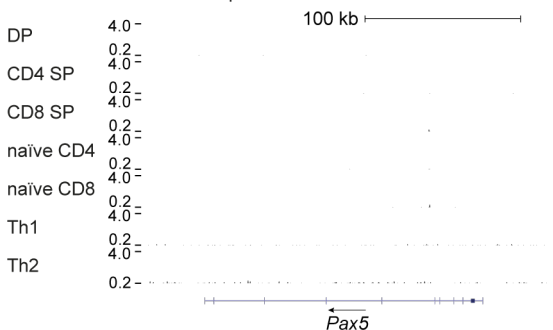
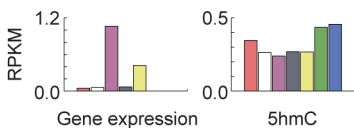
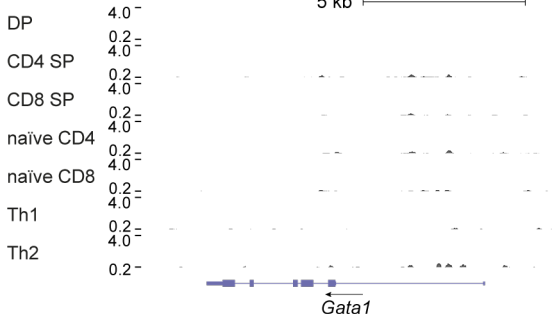
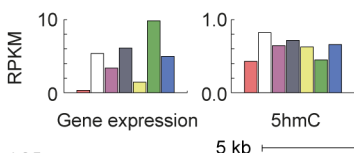
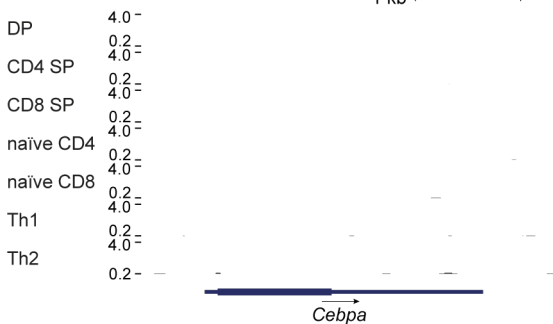
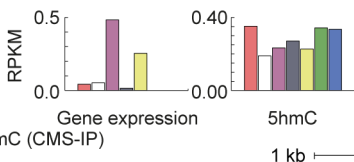
Cluster 2, N = 1,290

Cluster 4, N = 2,248

Cluster 6, N = 2,625



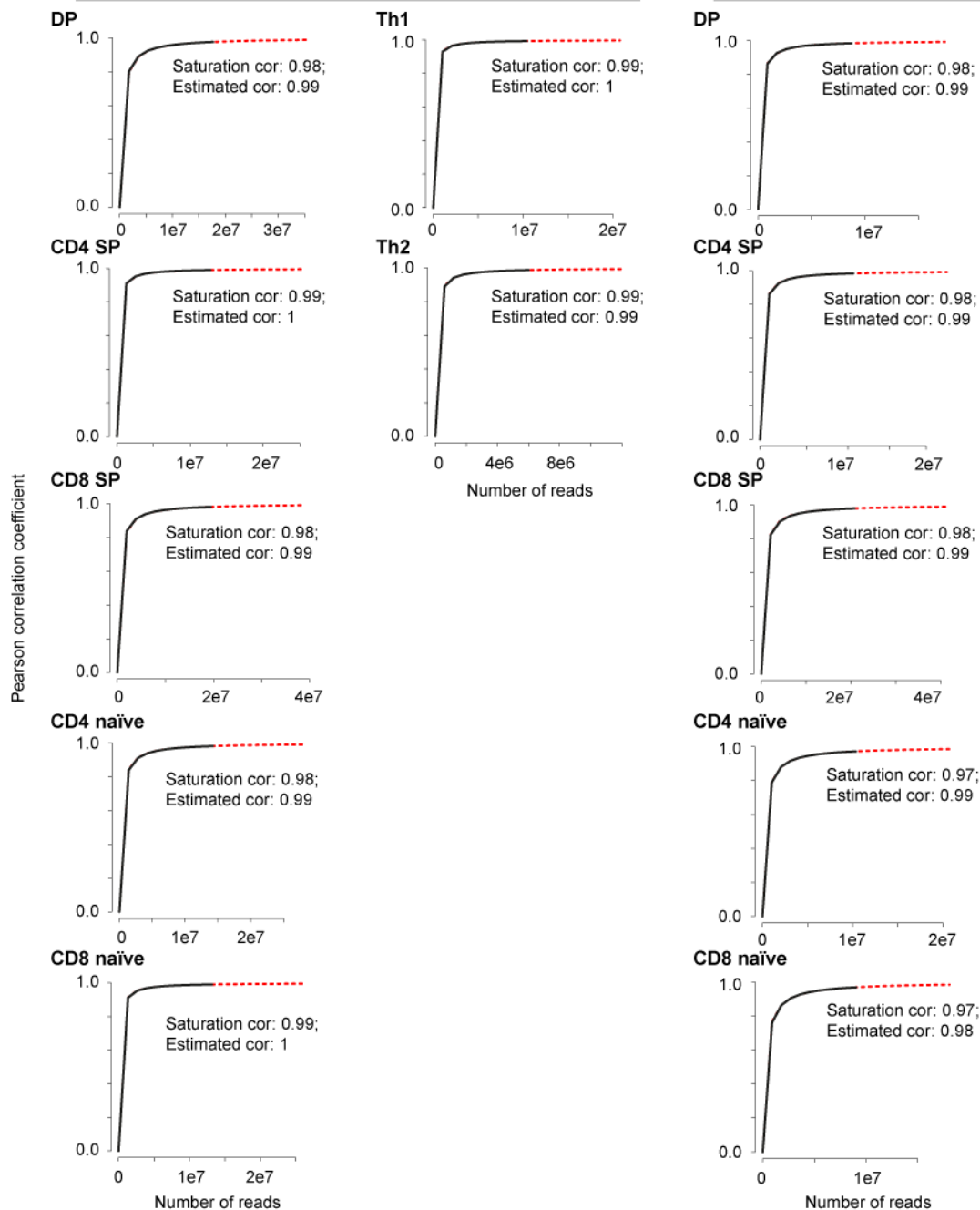
Supplementary Figure 5



Supplementary Figure 6

Biological sample #1

Biological sample #2



Suppl. Methods Figure 1

a

Input	Properly paired	DP	CD4 SP	naïve CD4	naïve CD8	Th1	Th2
	1st run	36,007,730	41,955,726	33,339,468	34,412,842	35,265,652	29,359,380
	2nd run	49,124,368	54,473,620	45,864,952	47,559,288	47,707,658	40,473,714
	Combined	85,132,098	96,429,346	79,204,420	81,972,130	82,973,310	69,833,094

CMS-IP	Properly paired	DP	CD4 SP	naïve CD4	naïve CD8	Th1	Th2
	1st run	23,981,430	21,646,366	24,534,124	25,906,174	22,367,958	12,860,672
	2nd run	54,373,924	50,199,558	54,653,976	60,301,816	52,844,026	34,623,618
	Combined	78,355,354	71,845,924	79,188,100	86,207,990	75,211,984	47,484,290

b

Properly paired	CD8 SP	CD8 SP (BR)
Input	47,991,615	49,967,657
CMS-IP	44,617,158	51,004,759

d

Properly paired	DP
Input	139,276,970
GLIB	187,353,802

c

Properly paired	DP (BR)	naïve CD4 (BR)	naïve CD8 (BR)
Input	34,232,316	34,232,749	25,516,551
CMS-IP	20,111,364	22,791,194	18,622,543

e

Properly paired	CD4 SP (BR)
Input	96,041,340
CMS-IP	48,152,562

Supplementary Table 1

a**1st run**

Input	Bisulfite conversion	DP	CD4 SP	naïve CD4	naïve CD8	Th1	Th2
CpG	0.9994	0.9993	0.9993	0.9991	0.9993	0.9994	
CHG	0.9991	0.9992	0.9992	0.9990	0.9992	0.9991	
CHH	0.9993	0.9993	0.9993	0.9983	0.9992	0.9993	

CMS-IP

CMS-IP	Bisulfite conversion	DP	CD4 SP	naïve CD4	naïve CD8	Th1	Th2
CpG	0.9996	0.9995	0.9995	0.9992	0.9994	0.9995	
CHG	0.9993	0.9994	0.9993	0.9990	0.9992	0.9993	
CHH	0.9993	0.9994	0.9994	0.9989	0.9993	0.9994	

b**2nd run**

Input	Bisulfite conversion	DP	CD4 SP	naïve CD4	naïve CD8	Th1	Th2
CpG	0.9995	0.9994	0.9995	0.9991	0.9994	0.9995	
CHG	0.9994	0.9993	0.9994	0.9991	0.9992	0.9994	
CHH	0.9995	0.9994	0.9995	0.9991	0.9994	0.9996	

CMS-IP

CMS-IP	Bisulfite conversion	DP	CD4 SP	naïve CD4	naïve CD8	Th1	Th2
CpG	0.9995	0.9996	0.9996	0.9991	0.9995	0.9996	
CHG	0.9996	0.9996	0.9995	0.9990	0.9995	0.9996	
CHH	0.9995	0.9995	0.9996	0.9991	0.9995	0.9996	

c

Input	Bisulfite conversion	CD8 SP	CD8 SP (BR)
CpG	0.9992	0.9991	
CHG	0.9990	0.9991	
CHH	0.9992	0.9992	

CMS-IP	Bisulfite conversion	CD8 SP	CD8 SP (BR)
CpG	0.9997	0.9997	
CHG	0.9996	0.9996	
CHH	0.9997	0.9997	

d**Biological replicates**

Input	Bisulfite conversion	DP (BR)	naïve CD4 (BR)	naïve CD8 (BR)
CpG	0.9994	0.9992	0.9994	
CHG	0.9993	0.9991	0.9993	
CHH	0.9993	0.9992	0.9994	

CMS-IP	Bisulfite conversion	DP (BR)	naïve CD4 (BR)	naïve CD8 (BR)
CpG	0.9996	0.9990	0.9997	
CHG	0.9995	0.9990	0.9995	
CHH	0.9995	0.9992	0.9996	

Input	Bisulfite conversion	CD4 SP (BR)
CpG	0.9994	
CHG	0.9992	
CHH	0.9994	

CMS-IP	Bisulfite conversion	CD4 SP (BR)
CpG	0.9995	
CHG	0.9995	
CHH	0.9996	

a RNA-seq	Cell type	GEO Accession(s)	PMID
	DP	GSM774312, GSM774313	22500808
	CD4 SP	GSM758717	22379031
	CD8 SP	GSM758719	22379031
	Th1	GSM523209	21867929
	Th2	GSM523211	21867929

b DP	ChIP	GEO Accession(s)	PMID
	H3K4me3	GSM523699	21867929
	H3K27me3	GSM774289, GSM774290	22500808
	H3K36me3	GSM803115	22080921
	PolII	GSM803116	22080921
	Input	GEO Accession(s)	PMID
c H3K4me3	H3K4me3	GSM774302	22500808
	H3K27me3	GSM774302	22500808
	H3K36me3	GSM803109	22080921
	PolII	GSM803109	22080921
	Input	GEO Accession(s)	PMID
	H3K4me3	GSM774302	22500808

c H3K4me3	Cell type	GEO Accession(s)	PMID
	CD4 SP	GSM758726	22379031
	CD8 SP	GSM758729	22379031
	naïve CD4	GSM361997	19144320
	Th1	GSM361999	19144320
	Th2	GSM362001	19144320

d ES	ChIP	GEO Accession(s)	PMID
	H3K36me3	GSM307620	17603471
	PolII	GSM307623	17603471

Supplementary Table 3

DP

- Not expressed (< 0.1), N = 9,994
- Lowly expressed (< 1), N = 2,821
- Moderately expressed (< 10), N = 3,996
- Highly expressed (< 100), N = 5,672
- Extremely highly expressed, N = 684

CD8 SP

- not expressed (< 0.1), N = 9,782
- lowly expressed (< 1), N = 2,897
- moderately expressed (< 10), N = 4,221
- highly expressed (< 100), N = 5,652
- extremely highly expressed (≥ 100), N = 615

CD4 SP

- not expressed (< 0.1), N = 9,966
- lowly expressed (< 1), N = 2,772
- moderately expressed (< 10), N = 3,971
- highly expressed (≥ 100), N = 5,861
- extremely highly expressed (≥ 100), N = 597

CD8 naïve

- not expressed (< 0.1), N = 11,270
- lowly expressed (< 1), N = 1,991
- moderately expressed (< 10), N = 3,857
- highly expressed (≥ 100), N = 5,477
- extremely highly expressed (≥ 100), N = 572

CD4 naïve

- not expressed (< 0.1), N = 11,161
- lowly expressed (< 1), N = 2,101
- moderately expressed (< 10), N = 3,716
- highly expressed (≥ 100), N = 5,601
- extremely highly expressed (≥ 100), N = 588

Th1

- not expressed (< 0.1), N = 11,630
- lowly expressed (< 1), N = 2,146
- moderately expressed (< 10), N = 4,556
- highly expressed (< 100), N = 3,956
- extremely highly expressed (≥ 100), N = 879

Th2

- not expressed (< 0.1), N = 10,830
- lowly expressed (< 1), N = 2,664
- moderately expressed (< 10), N = 4,732
- highly expressed (≥ 100), N = 3,988
- extremely highly expressed (≥ 100), N = 953

	5'UTR	3'UTR	TTS	Promoter	Exon	Intron	Intergenic	Total
DP	7	112	197	333	620	6835	5,320	13,424
CD4 SP	16	148	238	465	956	10,543	5,614	17,980
CD8 SP	14	168	294	507	990	11,620	5,374	18,967
naïve CD4	11	116	216	367	756	8519	3,657	13,642
naïve CD8	10	185	387	612	1,216	12,422	5,338	20,170
Th1	1	6	7	5	22	276	231	548
Th2	3	22	59	47	164	2,195	1,725	4,215

Number of HERGs

Supplementary Table 5

Supplementary Table 6. List of genes per cluster depicted in Fig. 5a.

Cluster 1					
Gene symbol	DP	Intragenic 5hmC (log2 CMS-IP/Input)			
		CD4 SP	CD8 SP	naïve CD4	naïve CD8
<i>Anxa2</i>	2,38469889	1,701110556	1,696539606	1,294588409	1,36577048
<i>9430014N10Rik</i>	2,353675832	1,678023064	1,874557506	1,307391797	1,309179248
<i>Ldlrad3</i>	2,214927888	1,700351239	1,735698292	1,308598739	1,407575305
<i>Dntt</i>	2,214792305	1,611002936	1,746983811	1,246169013	1,456542705
<i>Capn3</i>	2,439735165	1,816438097	1,83647562	1,387476948	1,405902738
<i>BC057022</i>	2,424910345	1,82593762	1,841552307	1,404888339	1,46097372
<i>Ng23</i>	2,489498451	1,613208161	1,792709068	1,427458112	1,478931271
<i>4930449E01Rik</i>	2,300413991	1,441014424	1,828991824	1,497443462	1,408092902
<i>Hmgb1</i>	2,551997696	1,608860474	1,630146757	1,476110134	1,643993761
<i>Tifab</i>	2,540205855	1,502572988	1,707200203	1,472749633	1,567998926
<i>Hist1h2bp</i>	2,636093036	1,393553757	1,702336546	1,39439269	1,409475669
<i>Gpr162</i>	2,771376398	1,729391092	1,680615244	1,491369518	1,395652345
<i>4933422H20Rik</i>	2,581387912	1,738650689	1,533638917	1,491843008	1,359231915
<i>Bst1</i>	2,437392867	1,835115298	1,750107362	1,205443913	1,645669719
<i>Agtrap</i>	2,648775344	1,854637706	1,584739815	1,285417221	1,531980086
<i>Tubb2a</i>	2,396057566	1,884664319	1,493658098	1,526759704	1,72223731
<i>Galk1</i>	2,662679819	1,810907284	1,591929121	1,527007211	1,734990887
<i>Olig3</i>	2,287760478	2,052210795	1,657728912	1,505338037	1,351596299
<i>Rbp7</i>	2,140756224	2,044471374	1,766607837	1,405139766	1,352065317
<i>2810454H06Rik</i>	2,294478461	1,820913861	1,613302846	1,325085329	1,18737959
<i>1600002D24Rik</i>	2,336249069	1,818507999	1,706733123	1,283666666	1,281244804
<i>Gm8615</i>	2,285615876	1,979187266	1,379503147	1,243558	1,230755772
<i>Cd1d2</i>	2,411859365	1,882389798	1,325980277	1,096042352	1,459992355
<i>Lrdd</i>	1,917431117	1,483766064	1,291354537	1,401753889	1,650274625
<i>Thap11</i>	1,996865831	1,567301147	1,204956224	1,264201733	1,524374528
<i>Ifitm3</i>	2,111941203	1,637570133	1,324349091	1,538553401	1,520469287
<i>Ly6c2</i>	2,229650843	1,617539309	1,098648058	1,395890018	1,947970507
<i>Jag2</i>	2,033676541	1,448770848	1,418511628	1,39703742	1,34408137
<i>Fastk</i>	2,178344299	1,455754791	1,528990991	1,453891939	1,276722266
<i>Nfatc3</i>	2,103201037	1,500971122	1,52462306	1,437684094	1,489036906
<i>Cdk5rap3</i>	2,085007631	1,618816219	1,538799359	1,470198462	1,419314923
<i>Irf8</i>	2,024164521	1,695101211	1,592317469	1,307786516	1,302938563
<i>Entpd7</i>	1,942220928	1,674539022	1,616546669	1,319465362	1,188273644
<i>Lag3</i>	2,063090644	1,611998402	1,542988483	1,372151667	1,136294141
<i>E130303B06Rik</i>	1,936223365	1,561278696	1,60591424	1,457435481	1,249784098
<i>1700108F19Rik</i>	2,032965117	1,5739803	1,431604944	1,169292473	1,171004922
<i>Serinc5</i>	2,129085365	1,65144955	1,502171078	1,117645646	1,17079246
<i>Tle6</i>	2,247695868	1,556494139	1,378639372	1,17103778	1,244171282
<i>Spc24</i>	2,028458016	1,299663349	1,780567183	1,099667907	1,649605992
<i>Pdzd3</i>	1,98132532	1,235456402	1,700748006	1,203049173	1,417702442
<i>Afmid</i>	2,13427656	1,220602223	1,545612836	1,314912143	1,634563622
<i>Tctex1d1</i>	2,43757228	1,424038622	1,453206673	0,952247206	1,213472771
<i>Gcnt7</i>	2,338813631	1,501796071	1,484630405	0,908034883	1,436390333
<i>Rab44</i>	2,535179396	1,597177759	1,438474417	1,122097032	1,184626715
<i>Tmprss4</i>	2,417548521	1,587728033	1,422588964	1,067761205	1,183000095
<i>Commd4</i>	2,255161046	1,712012583	1,610382021	1,080402378	1,466562539

<i>Zfr2</i>	2,284919818	1,64193582	1,655898198	1,20667136	1,552051735
<i>Cdca7</i>	2,412267362	1,752773016	1,584265878	1,17424713	1,446982243
<i>Tmem140</i>	2,023479854	1,721080907	1,661139325	1,188541826	1,401331779
<i>Ttc16</i>	2,054315191	1,524235898	1,597190095	1,243653057	1,317568685
<i>1810043H04Rik</i>	2,033839132	1,695971467	1,799874303	1,202576063	1,20351258
<i>Tdrd5</i>	2,185910358	1,509283287	1,779837401	1,140043656	1,422645473
<i>Gm12709</i>	1,963194731	1,462254265	1,537797331	1,055879609	1,272609953
<i>Mad1l1</i>	2,089539107	1,506227152	1,584342952	1,059216571	1,207057501
<i>Fam163b</i>	2,028433801	1,460466162	1,708020763	1,009153443	1,293580531
<i>Plekhf1</i>	2,278025755	1,630445787	1,803913726	1,035928622	1,248002172
<i>Lingo4</i>	2,297140395	1,634233701	1,834222418	0,87627203	1,247535026
<i>InsI5</i>	2,128343443	1,554987933	1,764444411	0,802896915	1,241064595
<i>Ctla4</i>	1,86733614	1,885996048	1,681399747	1,608684396	1,662839052
<i>Sirt2</i>	1,915217189	1,93430159	1,746498852	1,636908747	1,712505387
<i>Gm5122</i>	1,955342627	1,962413377	1,534187379	1,497003419	1,728303554
<i>Trappc1</i>	1,743852415	1,895368052	1,52506119	1,559467359	1,48601963
<i>4930405J17Rik</i>	1,933211094	2,020687037	1,821511467	1,530632901	1,365918314
<i>Ccr9</i>	1,994479383	2,152790235	1,769978002	1,49864267	1,446867005
<i>Klraq1</i>	2,153924206	1,877477889	1,681428833	1,694284282	1,540010247
<i>4931403G20Rik</i>	2,190931635	1,757509012	1,549437388	1,671080936	1,59160467
<i>BC049352</i>	2,096926566	1,710870247	1,72781375	1,774173382	1,676750386
<i>Gm11744</i>	2,000609393	1,657853627	1,543125581	1,774824376	1,444318975
<i>Chst10</i>	1,915465043	1,62563641	1,554869527	1,661415976	1,535793334
<i>2810021J22Rik</i>	2,227687362	1,955308472	1,981817211	1,604842048	1,538025455
<i>Myb</i>	2,119050182	1,989062534	1,870280554	1,571386421	1,430627329
<i>Ccdc107</i>	2,097118412	1,752269119	1,948194181	1,457402703	1,404691264
<i>Lipa</i>	2,191883058	1,807240983	1,730051316	1,557986251	1,508585799
<i>Fam125b</i>	2,281436394	1,806840389	1,829084405	1,475369228	1,552972501
<i>Serpinf1</i>	2,352098528	1,780016915	1,689570922	1,595079294	1,356458251
<i>Sla</i>	2,298348008	1,986636026	1,845846443	1,631931266	1,688364843
<i>Alg14</i>	2,283276755	2,087148528	1,823294671	1,62042104	1,588054272
<i>1700026D11Rik</i>	2,23323565	1,897321909	1,84552333	1,592149085	1,626983133
<i>Spint2</i>	2,206999827	1,982052963	1,823104093	1,594614155	1,575199223
<i>Tuba8</i>	2,118754044	1,925937246	1,795319076	1,62257044	1,630954235
<i>Atl2</i>	2,023621433	1,801300344	1,812553979	1,500506388	1,566935671
<i>Vangl2</i>	2,020640846	1,789767533	1,861199132	1,578499525	1,633245518
<i>Tspan3</i>	2,149632661	1,811543973	1,848192981	1,52812629	1,700299328
<i>Mip</i>	2,097937075	1,81110388	1,858284352	1,353888198	1,773723963
<i>Lgals9</i>	2,24895064	1,726300198	1,869918793	1,634473697	1,769426455
<i>Tmem184b</i>	2,216672309	1,777675844	1,869525126	1,596076709	1,818294385
<i>Bckdha</i>	2,212326631	1,649166469	1,819291472	1,493859135	1,788369954
<i>4930428O21Rik</i>	2,236919454	1,818455204	2,006335565	1,521434268	1,724254414
<i>Sec14l1</i>	2,256057436	1,808884205	1,985854802	1,551909962	1,681238198
<i>F2</i>	2,288753378	1,757286077	1,956458154	1,591580907	1,641507268
<i>Icam2</i>	1,881509993	1,556412607	1,573571946	1,475776998	1,621243148
<i>Camk1g</i>	1,837550403	1,697094659	1,627822762	1,416995552	1,602874104
<i>Flt3</i>	1,846103367	1,664958795	1,700798467	1,583900213	1,647495047
<i>Dck</i>	2,02063514	1,645996782	1,528430414	1,514337967	1,595175369
<i>1810012P15Rik</i>	2,095274454	1,755223178	1,636688664	1,516694606	1,573226145
<i>Pgls</i>	2,130419229	1,500675957	1,733313672	1,506988061	1,580875445
<i>Phlda3</i>	2,083183299	1,552892037	1,814170118	1,346616885	1,734121218

<i>Slc25a37</i>	1,987188943	1,709209565	1,802457541	1,440173688	1,526873491
<i>6430598A04Rik</i>	2,058636254	1,710527701	1,722674614	1,378247321	1,474261159
<i>Edaradd</i>	1,881265444	1,766947499	1,752296414	1,312865999	1,41511971
<i>Obfc2a</i>	1,959890579	1,897707805	1,774018187	1,339951411	1,57834166
<i>Ralb</i>	1,980303495	1,835062806	1,941484387	1,230802032	1,678877999
<i>Tmprss3</i>	1,9254109	1,734587351	1,883069701	1,064333517	1,703137682
<i>Clk3</i>	1,867773045	1,650626595	1,83548075	1,356873644	1,852535756
<i>Cass4</i>	1,754351275	1,67921119	1,823085668	1,272551224	1,841974575
<i>Bmf</i>	1,891495926	1,459917795	1,974534557	1,263712349	1,63315181
<i>Ifi30</i>	1,856807087	1,506209904	1,782953942	1,105414396	1,736825292
<i>Syng3</i>	1,816105259	1,559574466	1,866336676	1,263003178	1,623226754
<i>Mc1r</i>	1,869528599	1,628745899	1,821139941	1,328015882	1,627415256
<i>Trim11</i>	1,982930253	1,502195186	1,794041366	1,325590098	1,692716123
<i>Plxdc1</i>	1,89680002	1,469899284	1,735723015	1,295624346	1,694885198
<i>D1Ert622e</i>	1,783740459	1,555555104	1,818241227	1,418362651	1,76386591
<i>Ly6k</i>	1,83874347	1,489237434	1,754973716	1,402946034	1,734466422
<i>Wsb2</i>	1,59901072	1,624915831	1,55482503	1,322646941	1,547865283
<i>Gins2</i>	1,719090944	1,573426953	1,510453956	1,265629708	1,553556929
<i>Zfp238</i>	1,721616445	1,618859024	1,648460528	1,20904819	1,572334739
<i>Katnal1</i>	1,710509863	1,476739629	1,551047367	1,346811576	1,431559198
<i>Auh</i>	1,694873455	1,494184725	1,595404224	1,334862119	1,534219807
<i>Zcchc24</i>	1,763709449	1,632873696	1,507822865	1,271788966	1,368151932
<i>Stx6</i>	1,747253547	1,653964006	1,549615459	1,293036798	1,452806974
<i>Pofut1</i>	1,79497654	1,7184758	1,617759958	1,394211526	1,357806725
<i>Ephx3</i>	1,93112084	1,45542178	1,749889889	1,391285514	1,446253864
<i>Zfp768</i>	1,963500185	1,417688759	1,709382804	1,505405772	1,553384189
<i>Fbxo27</i>	1,911257876	1,328071494	1,628235351	1,380100009	1,541735795
<i>Irf6</i>	1,792631905	1,55422147	1,575129299	1,372517288	1,475481999
<i>Camk2a</i>	1,853022696	1,593728712	1,577855511	1,346199853	1,543060566
<i>Nlr1</i>	1,882961458	1,508591785	1,524530696	1,341123614	1,54679245
<i>Ccdc134</i>	1,897394049	1,555573559	1,66231352	1,244102296	1,522580258
<i>Capn11</i>	2,210412651	1,446000323	1,158691541	1,011066495	1,076607727
<i>D830013020Rik</i>	2,167536465	1,520673865	1,216083214	0,970022456	0,971804208
<i>Cep250</i>	2,21162456	1,443267288	1,295830679	0,969796732	1,183742055
<i>Ppt1</i>	2,052662058	1,468679438	1,256164822	1,026189435	1,025955984
<i>Gtdc2</i>	2,077650424	1,426617013	1,287483252	0,885590101	1,041324408
<i>Wdr78</i>	1,873505191	1,414481074	1,305407263	0,931751312	1,036618624
<i>Ahi1</i>	1,954973146	1,384704464	1,337432769	0,989489831	1,083931539
<i>Tmem121</i>	2,11420917	1,164094353	1,375245768	0,99494817	1,213387449
<i>Stra8</i>	2,116091903	1,286577859	1,345661946	1,066282567	1,094823305
<i>Tmem239</i>	2,035220468	1,175783943	1,509467236	1,266889439	1,015788459
<i>Clec16a</i>	1,829840465	1,594341558	1,420437286	1,233216117	1,131197337
<i>Glcc1</i>	1,822295383	1,480756404	1,430383629	1,2724071	1,15452715
<i>A430090L17Rik</i>	1,977841514	1,452179885	1,455810769	1,23766493	1,027146037
<i>Ptprf</i>	1,8370616	1,492161214	1,396677739	1,140153592	1,074277284
<i>Dhcr24</i>	1,90179963	1,502892844	1,34268434	1,098686011	1,038057718
<i>Emp1</i>	1,871321387	1,542413376	1,313122658	1,079454891	1,142738483
<i>Txnrd2</i>	1,814782728	1,448977863	1,284299465	1,159707896	1,005649561
<i>Jdp2</i>	2,018742781	1,409552488	1,402675984	1,076600524	1,215328332
<i>Ccdc162</i>	1,90155254	1,45701348	1,399210208	1,096611563	1,238258871
<i>Gml</i>	1,987826294	1,377063074	1,308318821	1,206456426	1,226311866

<i>Bcat2</i>	2,018276892	1,417876257	1,213442502	1,182476448	1,242345466
<i>Gm15612</i>	1,859683929	1,384259588	1,295408504	1,078202493	1,144291944
<i>Bcl2l2</i>	1,790805679	1,281378977	1,233364084	1,093595419	1,094184043
<i>Rreb1</i>	1,684093894	1,369312525	1,27139752	1,14232299	1,203887869
<i>Sh2d1a</i>	1,72205329	1,42322531	1,314721481	1,121833553	1,146213194
<i>1700125G22Rik</i>	2,146402068	1,308581776	1,229218736	0,833629406	1,375566514
<i>Klf1</i>	1,933403321	1,411572105	1,121246199	0,882731586	1,297093893
<i>Tm4sf5</i>	1,850458425	1,35948083	1,532378606	0,887967015	1,465241483
<i>Hist4h4</i>	1,915618842	1,536520991	1,433321477	0,853050373	1,386498818
<i>Lynx1</i>	1,969652174	1,400371075	1,351555605	0,874445487	1,39547682
<i>Mcm2</i>	1,998041837	1,371930172	1,403144484	1,019284711	1,380761098
<i>Bid</i>	1,69632948	1,263190287	1,310197544	1,056223576	1,400076771
<i>Sema3b</i>	1,788428855	1,280233017	1,311679752	0,959202109	1,425031223
<i>Dut</i>	1,854288628	1,209861428	1,332958007	0,96491694	1,254692149
<i>Scn4b</i>	1,834335287	1,276152205	1,345579943	1,030655124	1,243210141
<i>Nanos3</i>	1,98515632	1,167877849	1,248915505	1,069461304	1,347833587
<i>Fgr</i>	1,99437761	1,187902179	1,320410899	0,950188947	1,389669503
<i>5430421N21Rik</i>	1,798072569	1,73334809	1,351580419	1,166117473	1,141596215
<i>Gm10638</i>	1,696799639	1,787716838	1,602058441	1,029121364	1,094246174
<i>Ypel2</i>	1,784005457	1,504920339	1,434154101	1,132910203	0,927915496
<i>Spink2</i>	1,757062021	1,443206295	1,509799056	1,219727156	1,022614476
<i>Spry1</i>	1,639491866	1,518410432	1,45312166	1,219754669	0,828065842
<i>Zfyve28</i>	1,764109756	1,35621897	1,39454904	1,05265931	1,202713949
<i>Igsf8</i>	1,868447237	1,3219616	1,425146844	0,992731973	1,161322307
<i>Spo11</i>	1,775437067	1,377029461	1,532174315	1,074812105	1,157514872
<i>C230024C17</i>	1,782263221	1,545556042	1,533495632	1,062171455	1,195063358
<i>Kcnh2</i>	1,618933403	1,362875405	1,433496955	0,963300123	1,118500784
<i>Slc39a2</i>	1,581771854	1,426063047	1,460975942	0,932715771	1,200012786
<i>H2-Q2</i>	1,666507187	1,464935907	1,299242464	0,939666725	1,119861013
<i>Tbc1d10c</i>	2,069795871	1,629639575	1,535556041	0,704892676	0,854216526
<i>Comt</i>	1,800802865	1,608262574	1,356178155	0,793234147	1,010219145
<i>Cited4</i>	1,951830713	1,472549836	0,845821496	1,346336708	0,874417444
<i>Ly6c1</i>	2,049859235	1,68091949	1,05785227	1,549847398	1,019337944
<i>1700018L02Rik</i>	1,756594644	1,535598781	1,634207497	1,703474324	0,989525444
<i>Spata5l1</i>	1,691995902	1,247063248	1,497496559	1,492489401	0,798379004
<i>Ccdc28b</i>	1,733420538	1,361019052	1,192407421	1,52157262	1,197627452
<i>Cdc42ep4</i>	1,765903757	1,304987352	1,216685551	1,480269318	1,128830393
<i>Cd1d1</i>	1,467345639	1,294514734	1,166629878	1,511986023	1,077396704
<i>Gm12522</i>	1,654884055	1,63374646	1,10807397	1,510239658	1,092799186
<i>Ptprcap</i>	1,718015993	1,315910121	1,59013229	1,365816497	1,170445085
<i>Atg9b</i>	1,618434807	1,234650832	1,509833819	1,386798753	1,168342021
<i>Apoe</i>	1,662075667	1,324777388	1,449050764	1,44072373	1,310864905
<i>Maf1</i>	1,57227778	1,323504426	1,790691731	1,391383386	1,363905793
<i>Baiap2l2</i>	1,356551674	1,513993908	1,614077051	1,277355647	1,293105858
<i>Fam108c</i>	1,378732942	1,606871393	1,597861351	1,212982693	1,236365382
<i>1700001D01Rik</i>	1,477021027	1,739169622	1,691777379	1,298109439	1,114684081
<i>Rbl2</i>	1,512484951	1,655820308	1,473483215	1,311970375	1,361823637
<i>L3mbtl3</i>	1,505852216	1,742786332	1,509845004	1,427773228	1,300847834
<i>2610307P16Rik</i>	1,61714789	1,626396206	1,58635846	1,21942209	1,219446565
<i>Ankrd50</i>	1,525214517	1,643031958	1,582270197	1,258557653	1,288115378
<i>Fas</i>	1,579680725	1,647697633	1,479361772	1,213279142	1,282014873

<i>A430107P09Rik</i>	2,250115499	1,73567455	1,280976427	0,86083409	1,194918245
<i>Id3</i>	2,320659906	1,648158873	1,372681355	0,707854887	1,032240446
<i>Arrdc5</i>	2,464450351	1,817278311	1,529854264	0,67781578	1,187570343
<i>Ltb</i>	2,570803266	1,633088112	1,49144923	0,965208474	1,048652497
<i>B230118H07Rik</i>	2,469432526	1,622179804	1,464701023	0,849327913	0,897100753
<i>1810019D21Rik</i>	2,343891852	1,516513901	1,061066471	0,880377703	1,504114855
<i>Prss57</i>	2,539672057	1,2371473	1,267782323	0,923139355	1,03866821
<i>Fstl3</i>	2,178031628	1,248463492	1,457875976	0,634574262	0,989438865
<i>Tmem151b</i>	2,223056443	1,393959286	1,312000457	0,879777787	0,810649262
<i>Syt13</i>	2,159669532	1,381635034	1,205793018	0,812180222	0,710279928
<i>2010109I03Rik</i>	2,317218935	1,307452032	1,262766215	0,937592205	0,895168478
<i>Ptcra</i>	2,358470725	1,405741715	1,218002401	0,866573804	0,892092248
<i>C330024C12Rik</i>	2,503096621	1,442953632	1,188154325	0,791725613	0,667650093
<i>Fam43a</i>	2,631752485	1,056556843	1,639001141	1,169934005	1,043097298
<i>Fam166b</i>	2,870200106	1,313735703	1,599149372	1,000497114	1,21099651
<i>5730422E09Rik</i>	2,560353535	1,769928545	1,556705136	1,253967179	1,194580529
<i>Xrra1</i>	2,421394038	1,707560239	1,587084842	1,243382311	1,166678612
<i>Siglec15</i>	2,534479846	1,736675817	1,711053745	1,082321301	1,16196004
<i>Tube1</i>	2,54212411	1,714166139	1,753879001	1,393221448	1,108669281
<i>2310001H17Rik</i>	2,358385341	1,664684861	1,945574646	1,439934606	0,846461556
<i>Rag2</i>	3,089920774	1,993846417	1,620453315	1,20588105	0,908600286
<i>A930003A15Rik</i>	2,665726309	1,891212248	1,656946365	1,102763247	0,99248126
<i>Gm525</i>	2,93411844	2,040068687	2,103376859	1,530459044	1,510377968
<i>Ly6g6d</i>	3,372802614	2,020774041	2,119083858	1,502918023	1,684041
<i>Rorc</i>	3,042652913	2,159606795	2,082195625	1,300186969	1,475609897
<i>Ndn12</i>	3,035099208	2,02010082	1,807747577	1,346834996	1,843577142
<i>Sema7a</i>	2,850666803	2,008226947	1,884983593	1,490770579	1,545440407
<i>Plxnd1</i>	2,819794874	2,161196744	1,907358142	1,486519275	1,509467662
<i>Fabp4</i>	2,964186895	2,182603702	1,897498489	1,630925409	1,620313548
<i>Tubb2b</i>	2,910045729	2,260654873	1,836824922	1,4477532	1,368817808
<i>Kifc2</i>	2,965406257	2,140150683	1,675246561	1,535233119	1,46238305
<i>BB031773</i>	2,841684903	2,278950619	2,24796409	1,453011151	1,79168496
<i>3930402G23Rik</i>	2,927051981	2,21367333	2,236197669	1,566429388	1,592937671
<i>Rag1</i>	3,515045957	2,497297323	2,293405065	1,36736396	1,561681036
<i>Ldhb</i>	2,60265702	2,030829826	1,930348089	1,460310692	1,578047205
<i>Slc37a2</i>	2,563487894	1,995003998	1,912607585	1,434748023	1,505287644
<i>Rapgef3</i>	2,591507949	2,056459682	2,003188104	1,514386528	1,593434581
<i>9230115E21Rik</i>	2,292451142	1,973305267	2,050784177	1,270023781	1,538077691
<i>Ly6d</i>	2,552487552	2,276017246	2,280439828	1,356496311	1,64637732
<i>Ilvbl</i>	2,736147005	1,963494151	2,145439459	1,447094306	1,735954523
<i>Maz</i>	2,658540605	1,882076378	2,097884457	1,470818517	1,788059156
<i>Slc6a19</i>	2,617527776	1,932535379	2,050775488	1,189423097	1,861260128
<i>Trim72</i>	2,756120755	1,783175457	1,928977208	1,187754967	1,607876424
<i>Ccdc153</i>	2,770929875	1,92897004	1,968935576	1,247625276	1,510882737
<i>Gm16617</i>	2,730182107	1,588193679	1,867075775	1,632904298	1,469668663
<i>Myadml2</i>	2,689739661	1,841820249	1,948520074	1,531668681	1,42097075
<i>C2cd4d</i>	2,958998039	1,67471364	2,185288821	1,477815487	1,417055507
<i>2210020M01Rik</i>	2,956021136	1,685108535	1,730213596	1,055095961	1,624230292
<i>4930572J05Rik</i>	3,116974574	1,86890731	1,410292126	1,723960711	1,760677989
<i>5430425J12Rik</i>	2,649912503	1,985655736	2,325132415	1,454248556	2,27011258
<i>Grb7</i>	2,493539515	1,953286041	2,373766058	1,690177702	2,231507107

<i>Cerk</i>	2,570866631	2,114547036	2,106288816	1,606533975	1,949514516
<i>Pigyl</i>	2,444524685	2,114569755	2,240263072	1,573885074	2,011695271
<i>Ptpn14</i>	2,535054711	1,987481085	2,29408437	1,502543411	1,924275167
<i>8430423G03Rik</i>	2,659130116	1,761939241	2,478942784	1,335393792	1,941612852
<i>4933433G15Rik</i>	2,31059464	2,100594569	2,164254811	1,235573925	2,036872113
<i>Dhx34</i>	2,321189545	1,828765548	1,971488501	1,250264835	1,941926835
<i>Gm12</i>	2,020444726	1,65735698	2,309923164	1,192974446	2,051544523
<i>Gm7030</i>	2,163705912	1,95657292	2,535363242	1,315110062	2,095203993
<i>Pak4</i>	1,886060786	1,726658562	2,313439923	1,690335865	2,237254031
<i>Hpcal1</i>	2,01537447	1,744760226	2,175312923	1,682885868	2,276813354
<i>Ly6e</i>	2,008101709	1,829872577	2,220505339	1,744030109	2,087506793
<i>2700081O15Rik</i>	2,120316926	1,829598109	2,193804412	1,538933235	2,192488667
<i>Rps15</i>	2,152077713	1,786909063	2,092519588	1,63072256	1,977155249
<i>Slamf6</i>	2,081119505	1,887191836	2,031932342	1,693742587	1,914736067
<i>Rmnd5a</i>	2,104683083	1,880865456	2,101618685	1,504730907	1,985436414
<i>Edem1</i>	2,310015838	1,962037481	2,215142268	1,661354818	1,785112007
<i>Egln3</i>	2,190870312	1,974105291	2,056351176	1,642795687	1,715996974
<i>Tmem123</i>	2,1499104	1,963020986	1,948788309	1,74976932	1,96589926
<i>5830428M24Rik</i>	2,159426857	1,963929167	1,98021081	1,756917461	2,089293799
<i>Stat5a</i>	2,153949276	2,006777151	2,035967681	1,691184516	1,990460853
<i>Tcof1</i>	2,207282384	1,988859751	2,050390741	1,672852046	1,986691541
<i>Bcl2l11</i>	2,23024634	1,933201296	2,043494371	1,643244958	2,019434338
<i>Samd1</i>	2,262281888	2,015729943	1,940391083	1,791381145	1,964340081
<i>Lta</i>	2,218266386	1,785986308	1,949391122	1,592017348	2,075296839
<i>D030028A08Rik</i>	2,301457242	1,863557149	1,88117934	1,675904842	2,066398915
<i>G630016D24Rik</i>	2,493363879	1,91448382	1,985830671	1,809589483	1,763259892
<i>5830416P10Rik</i>	2,381255529	1,988406273	1,988895555	1,721428483	1,632248783
<i>Gm11186</i>	2,485658656	1,711935893	2,025625381	1,677286107	1,702710756
<i>3110062M04Rik</i>	2,345330285	1,866823892	1,965579399	1,440325416	1,790156871
<i>Tm6sf1</i>	2,349449639	1,942875419	1,981000056	1,435966114	1,8758663
<i>Unc5cl</i>	2,343065399	1,880380393	1,846031385	1,47092139	1,721639787
<i>E2f4</i>	2,438296165	1,899763319	1,834196674	1,649617374	1,914145544
<i>Zdhhc8</i>	2,352503473	1,58351041	1,804972427	1,422555332	1,993058152
<i>Map3k6</i>	2,417783442	1,698213541	1,955014576	1,432622835	1,927939267
<i>Alox5ap</i>	2,097487492	1,700090694	1,929006091	1,547723433	1,942387748
<i>Nup214</i>	2,056758576	1,58919177	1,867676958	1,543784212	1,867939811
<i>Arl5c</i>	2,085278449	1,636748336	2,025559952	1,461057979	1,853153999
<i>Slc1a5</i>	2,346336286	1,750254245	2,136517803	1,610418188	1,924235899
<i>Pafah1b3</i>	2,242011367	1,610389562	2,160344642	1,484502427	1,938789612
<i>Galnt4</i>	1,864117946	1,937847421	1,656547478	1,855254931	1,994790012
<i>Tbcc</i>	1,828432487	2,064492003	1,491882787	1,832080555	2,131502429
<i>H2-T22</i>	2,137893287	1,998928152	1,736493801	1,794686633	2,276659594
<i>H2-T9</i>	2,137900006	2,003467311	1,736501661	1,794692629	2,276662093
<i>Nudt22</i>	2,24026529	1,904027921	1,41946601	2,164464141	2,16054117
<i>Map1lc3a</i>	2,673214361	2,286984788	1,577209816	1,299167526	2,349957387
<i>E130112N10Rik</i>	2,416658017	2,459459826	1,922839134	1,90231271	1,888495751
<i>Tpi1</i>	2,545468766	2,533506595	2,262308681	1,879258543	1,979888138
<i>Cd27</i>	2,409917619	2,630300198	1,853980381	2,164199961	1,668094122
<i>Gm20098</i>	2,095096799	2,100697603	2,120036952	1,873364285	1,899090743
<i>Lrig1</i>	2,134157095	2,153222841	2,064580864	1,897061546	1,915862585
<i>4930426L09Rik</i>	2,172918281	2,315247145	2,025876144	1,817662145	1,936197569

<i>Cstb</i>	2,140635421	2,127714022	2,019557763	1,701047396	1,853953944
<i>Nmnat1</i>	2,128296107	2,051202107	1,862262527	1,690220473	1,790542302
<i>Trib1</i>	1,953567215	2,175510879	2,058901926	1,800399148	1,736922336
<i>Parp11</i>	2,017207456	2,159999711	1,99378326	2,032790854	1,69920201
<i>Lig4</i>	2,308840786	2,177334414	1,975875116	1,9127006	1,586875175
<i>Pvr</i>	2,385623543	2,178412367	1,994154228	1,957767634	1,57616982
<i>4930578M01Rik</i>	2,529170542	2,140203787	2,090601937	1,881192666	1,711346194
<i>Rasgrp4</i>	2,281149495	2,21424005	1,97642822	1,690741397	1,491881195
<i>Pex26</i>	2,770887899	2,211014536	2,09373581	1,746051148	1,672272639
<i>Phospho1</i>	2,619482042	2,110104052	2,137837094	1,633188545	1,747490916
<i>Gphb5</i>	2,687925002	2,166599277	2,068034796	1,683427028	1,898381891
<i>Mtch1</i>	2,820262421	2,173113465	2,06103803	1,709364823	1,980346242
<i>Phf2</i>	2,629868811	2,098028627	2,138317375	1,786258461	1,985768803
<i>Kremen1</i>	2,553310778	2,127856382	2,142495935	1,770417223	1,921315595
<i>Gm3716</i>	2,540628944	2,060374473	2,124364594	1,851729114	1,885051117
<i>Gm11202</i>	2,612785668	2,061249087	2,12561892	1,859665174	1,914173363
<i>Mns1</i>	2,468529464	2,203698291	2,095730522	1,738894868	1,893027554
<i>1700067K01Rik</i>	2,560032724	2,114750245	2,074211105	1,997546625	1,977586459
<i>Gm11944</i>	2,511884326	2,096098472	2,042451334	1,882928	2,045621739
<i>Elmo3</i>	2,620631314	2,197539659	1,775651024	1,933175602	1,856973974
<i>Polr2i</i>	2,769688725	2,030540463	1,870371116	1,890767057	2,109971739
<i>Tff1</i>	2,578200593	2,67980022	0	1,909667548	1,450612726
<i>Gm5465</i>	1,881481397	1,812086005	-0,514909308	0,986995558	2,12689386
<i>Cd3d</i>	3,72135033	2,642718544	1,951635148	0,656964594	0,314294074
<i>Btg1</i>	3,215643525	2,234259387	2,092118202	0,458300489	-0,021090027
<i>Cdkn2d</i>	2,835469372	2,820707939	2,264722573	0	-2,694207149
<i>Gpsm3</i>	2,308319959	2,239473676	1,767791681	0,386357514	1,005898572
<i>H2afz</i>	2,459056487	2,293923259	1,480779803	0,452891761	0,929935406
<i>Actb</i>	2,837810082	3,220978288	2,64679654	1,009600412	1,179903441
<i>Cd52</i>	3,463529043	3,392233292	2,605542489	0,990403816	1,02321214

Cluster 2					
	Intragenic 5hmC (log2 CMS-IP/Input)				
Gene symbol	DP	CD4 SP	CD8 SP	naïve CD4	naïve CD8
<i>Gtf2h4</i>	3,829571294	2,851240615	2,822252996	2,286366543	1,827723371
<i>Txnip</i>	3,298296734	3,203653401	2,686880799	2,254881797	1,745139052
<i>Gm4598</i>	3,266397735	2,991067754	2,461198904	2,052332234	1,836883807
<i>A430035B10Rik</i>	3,211383573	2,635951067	2,44144637	2,114946479	2,0914574
<i>Aqp11</i>	3,633877947	2,630444408	2,514115627	2,035985212	1,896292515
<i>Ptms</i>	3,220501332	2,734389709	2,379630917	2,342140575	2,105984762
<i>Cd4</i>	3,050275063	3,008059734	2,40191443	2,629047565	1,939358881
<i>S100a2</i>	2,965693147	2,736338541	2,272087192	2,388890075	1,617906423
<i>Cd8b1</i>	4,364706804	3,514429575	3,13019994	2,654437876	1,843696882
<i>Sit1</i>	3,692860291	3,277629592	3,117956223	1,89398216	2,656884992
<i>Rnf167</i>	2,763127685	3,383393592	3,550011069	1,962229534	2,472304475
<i>Zfp36</i>	3,248085857	3,622464646	3,100760605	1,457518866	2,257213344
<i>Art1</i>	3,237222125	2,40444203	2,322106399	1,843248505	1,784687272
<i>Zfp219</i>	3,002735245	2,280283308	2,319740529	1,99057874	1,881358171
<i>Neu3</i>	2,858373773	2,280255111	2,203863477	1,817996376	1,859886223
<i>Bcl2l1</i>	2,927430716	2,336021713	2,284814751	1,858324019	1,988702121
<i>Xrcc6</i>	3,347993928	2,352893909	2,125597944	1,669090919	1,819316991

<i>Fbxl12</i>	3,125367125	2,239164291	2,185233191	1,662928777	1,782933866
<i>Endou</i>	3,065379256	2,302615375	2,080573592	1,785438434	1,676725881
<i>Colq</i>	2,980444198	2,420354996	2,44143585	1,757176697	2,011049117
<i>Arsi</i>	3,396749953	2,573477887	2,418439841	1,626900921	1,863777133
<i>Naif1</i>	2,748450379	2,166050818	2,158311752	1,89437121	1,997295905
<i>Kcnh3</i>	2,805519691	2,146615988	2,254896503	1,845000671	2,00219835
<i>Gfi1</i>	2,848039024	2,126203389	2,295715127	1,935453406	2,155199305
<i>Lgals1</i>	2,749154451	2,211973708	2,47798525	1,810740199	1,990538798
<i>Eif4e3</i>	2,773315046	2,289877232	2,236746485	1,920955999	1,912435243
<i>Dhrs13</i>	2,725548955	2,297484596	2,25369808	2,054772739	1,918723969
<i>Ostm1</i>	2,922062237	2,376171461	2,224822554	1,974041132	2,136520502
<i>Ptrh1</i>	3,056089308	2,075145733	2,336443555	2,059254894	1,80776066
<i>1700019L03Rik</i>	3,069269175	2,061115159	2,117800775	1,857502998	1,854544168
<i>9130221H12Rik</i>	2,86209698	2,07535738	2,224428524	1,523307419	2,462836276
<i>Syde1</i>	3,020586309	2,071009482	2,315919951	1,799141492	2,354655565
<i>Rab42-ps</i>	2,690887355	2,418939175	2,429913723	1,745574913	2,27324283
<i>Olfr314</i>	2,882297979	2,384212724	2,575465098	1,513092552	2,230795181
<i>Ict1</i>	2,735916982	2,212425424	2,581430688	2,153891332	2,737282257
<i>Trp53i11</i>	3,10702197	2,198296706	2,752831576	2,136998161	2,704037624
<i>Slc43a2</i>	2,895169987	2,236245237	2,493382968	1,902805706	2,499625131
<i>Cxcr4</i>	2,785525186	2,132874584	2,524868073	1,873860804	2,48183848
<i>Pptc7</i>	2,98486625	2,511736154	2,559015693	2,294528152	2,46045344
<i>0610005C13Rik</i>	3,249487231	2,426762026	2,419485647	2,349379504	2,432694542
<i>E330033B04Rik</i>	2,874974428	2,576524686	2,439135633	2,453574277	2,477623296
<i>Myl6</i>	2,882310882	2,461339971	2,467835301	2,463039988	2,59515503
<i>Prrt2</i>	2,89143757	2,365406109	2,425712588	2,295280629	2,305016158
<i>Dcdc2b</i>	3,63327439	2,62486521	2,402399953	2,203028392	2,371714969
<i>Lgals7</i>	3,405445385	2,742203017	2,465411029	2,268046133	2,426512969
<i>Gm10818</i>	2,881587147	2,726208401	2,448190839	2,313051146	2,58135475
<i>Paqr6</i>	3,332755863	2,63228541	2,751844735	2,042355823	2,510721945
<i>5031434O11Rik</i>	2,637939928	2,505915804	2,716846493	2,01178109	2,392462993
<i>Snai1</i>	2,869874623	2,421385366	2,718240954	2,006953149	2,029077636
<i>Fkbp2</i>	3,287091443	2,411641119	2,689217399	2,16256696	2,014352271
<i>2310007L24Rik</i>	3,388163414	2,538805632	2,803976976	1,966628994	2,203124987
<i>Gm15441</i>	2,997811263	2,969492429	2,747572138	2,39172616	2,619504886
<i>Arc</i>	3,015785376	2,831577719	2,757655207	2,354029685	2,571596964
<i>Fam71b</i>	3,315806213	2,886593005	2,63436328	2,168875989	2,670091076
<i>4930568K20Rik</i>	3,477362416	2,719256706	2,83927572	2,257643305	2,600502798
<i>Ccdc42b</i>	3,30400165	2,745361428	2,74078715	2,246197217	2,526157938
<i>Abi3</i>	3,177661322	2,882829353	2,921424124	2,150554909	2,531763232
<i>Gimap7</i>	2,815767026	2,764690566	2,801801487	2,396824918	2,465770185
<i>Tnfrsf1a</i>	2,792540665	2,701159114	2,780059094	2,31402439	2,643545086
<i>Tcf7</i>	3,528738174	3,055256698	3,094090435	2,432372116	2,603146581
<i>Aes</i>	3,511596696	2,991439855	2,985796276	2,537931994	2,679864657
<i>Cyb5</i>	3,03664976	2,849254883	2,967005053	2,55196824	2,691003628
<i>A630055G03Rik</i>	3,387555076	2,865206605	2,967052116	2,543919944	2,620430504
<i>Rnf166</i>	3,931308874	2,879337862	2,914027936	2,513113149	2,43479798
<i>B3gnt8</i>	3,42115395	2,737132509	2,766169544	2,350395383	2,364596501
<i>Ets2</i>	3,167695877	2,725939002	2,645466311	2,347864253	2,332601079
<i>1190002H23Rik</i>	3,271638936	2,855062913	2,767187318	2,335133842	2,400581244
<i>2210021J22Rik</i>	3,35132197	2,831727077	2,702369389	2,288382559	2,427409262

<i>Nron</i>	3,610330761	2,840617232	2,640274641	2,256451019	2,223595459
<i>A630019I02Rik</i>	2,803675958	3,007172487	2,775758348	2,48522714	2,185040883
<i>Cd2</i>	3,285874656	3,606246402	3,566430945	2,426654807	2,895431537
<i>Leprel4</i>	3,914920572	3,175761077	3,073753638	2,378448464	3,022233791
<i>Gm10560</i>	3,020647145	3,255669679	3,285656435	2,250224342	3,271437375
<i>Ets1</i>	3,171474143	3,297459216	3,163577247	2,275174346	2,72359941
<i>Rab3a</i>	2,822566127	2,925600857	2,628942726	2,253205646	2,95747805
<i>D830046C22Rik</i>	2,497589278	3,227930681	3,150441612	2,095739341	3,138666357
<i>Ccr7</i>	2,609909886	3,786086608	3,65646356	2,396503143	2,992800323
<i>Ccnd3</i>	2,961188871	2,595098952	2,74067129	2,68735605	2,739643272
<i>Btg2</i>	3,108346384	2,854616671	2,694439726	2,616029626	2,579912871
<i>Kctd2</i>	3,845960009	2,831125874	2,793328252	2,507690869	2,836812778
<i>Tspyl4</i>	3,009420767	2,842303623	2,764263731	2,560718913	2,799992734
<i>Cldn4</i>	4,291652473	2,894035872	2,580714355	2,605079524	2,898713765
<i>Pik3ip1</i>	3,013962956	2,920824043	2,922457644	2,556304319	2,803056929
<i>Fxyd5</i>	2,904855935	2,923148541	2,923267433	2,650256802	2,809271936
<i>Rasl11b</i>	3,080118758	2,893025152	3,078662999	2,627951892	2,896799012
<i>Bach1</i>	3,477099475	3,121540433	3,136720374	2,718842677	2,904360277
<i>Zfp408</i>	3,640883796	3,271750667	3,243531745	2,736369907	3,233022116
<i>Fam189b</i>	3,056928833	2,717820946	2,97150393	2,911997643	2,851036339
<i>Adat3</i>	2,922483747	2,701537106	2,933307259	2,889470822	3,303755273
<i>Cnp</i>	3,310799845	2,805570037	3,297203467	3,145337974	3,479403942
<i>Nt5c</i>	2,785691112	2,698349102	3,410411167	3,100673809	3,290927065
<i>Al467606</i>	3,213129284	3,086750411	3,282096326	2,920159441	2,776255371
<i>Rhoh</i>	2,893263662	3,363866152	3,320744134	2,843583004	2,838563373
<i>Ldhd</i>	3,687604715	3,21744448	2,84397557	2,915964002	2,826669384
<i>Kcnn4</i>	3,049232059	3,156884846	3,052418599	2,863410635	2,916266213
<i>Nfkbia</i>	3,411457419	3,888200604	3,727805507	2,859291894	3,213071424
<i>4930478L05Rik</i>	3,773210543	3,405201059	3,267536907	2,920374039	3,313845922
<i>Gm4814</i>	3,708431539	3,738442567	3,657609664	2,927721689	2,97597483
<i>Psmb8</i>	3,079054522	3,119852681	2,94196845	2,920749173	3,08182695
<i>Fam78a</i>	3,363679218	3,729696542	3,926680521	3,591466543	2,915189822
<i>Olfr1509</i>	3,378502243	3,098471655	3,455199565	3,209990629	2,959368144
<i>Zbtb12</i>	3,744921815	3,944718465	4,019980684	3,706504026	3,689297691
<i>Gimap1</i>	3,106484897	3,201494066	3,150093331	3,113218996	3,415324542
<i>Hmha1</i>	3,053686182	3,61493313	3,760698886	3,518670677	3,876278251
<i>Bcl11b</i>	3,703996995	4,079250686	4,179232103	3,622664356	3,810242936
<i>Sept1</i>	3,484228858	3,404406679	3,383582853	3,004958961	3,176701395
<i>Gm590</i>	4,399676598	4,335665836	4,214502389	4,397793542	4,279187641
<i>Hsdl1</i>	4,27194872	3,63485913	3,466603029	3,115984594	3,141608663
<i>Als2cl</i>	3,128320285	3,199933748	3,427062266	3,129837627	3,372924051
<i>Gm13031</i>	3,366664157	3,160769031	3,249069727	3,189986194	3,127736245
<i>G0s2</i>	3,347031763	4,083509164	4,348524341	4,476509359	3,940258791
<i>Vamp1</i>	3,673590436	3,48029811	3,492674877	2,996282796	3,135428382
<i>Ezr</i>	3,023561033	3,086311025	3,308675243	2,980239759	3,331535431
<i>Cd247</i>	2,863335249	3,331368593	3,288767686	2,901177332	3,120965412
<i>Satb1</i>	2,879602716	3,618363718	3,68665909	3,287939422	3,381673973
<i>Cd8a</i>	5,155248197	4,049708407	3,578299799	3,197742908	2,50159727
<i>2210010C17Rik</i>	3,642199568	3,331356647	3,00010396	2,816402068	2,613824575
<i>Gm13032</i>	2,969486258	3,107021747	2,627220448	3,217917982	2,42248588
<i>H2-Oa</i>	2,581936406	2,464487691	3,016423548	2,427545121	2,980973168

<i>A430088P11Rik</i>	2,594862812	2,484347132	2,929083084	2,660980751	3,38128895
<i>Prex1</i>	2,504287767	2,514618844	2,751399425	2,508248771	2,899829355
<i>Sema4d</i>	2,448329953	2,477366744	2,859264952	2,602392772	2,919837061
<i>Ppp1ca</i>	2,800427285	2,460429207	3,052911506	2,791914672	2,926304569
<i>Il4ra</i>	2,760510699	2,583939706	2,552873115	2,607669157	2,803931045
<i>Slc25a1</i>	2,671537829	2,653189581	2,502968217	2,567016689	3,153858635
<i>4930583K01Rik</i>	2,783169735	2,561631579	2,703556567	2,690433965	3,338688607
<i>N4bp3</i>	3,21545865	2,457873787	2,707186907	2,11229787	2,77196493
<i>Slc50a1</i>	2,98864926	2,534192532	2,842582194	2,264947017	2,847265273
<i>Esrp2</i>	3,221675102	2,384834972	2,635024253	2,295483068	3,036995593
<i>Adrbk1</i>	2,823417299	2,451685816	2,669970264	2,449646041	2,787362405
<i>E2f2</i>	2,748594679	2,387198734	2,732655867	2,453372017	2,886196451
<i>Pnma1</i>	2,801064524	2,188426853	2,803406995	2,421661714	2,745677827
<i>Tlr12</i>	2,878289135	2,553603381	3,106594367	2,367117167	2,988391939
<i>Gse1</i>	3,011061371	2,677074862	2,920175528	2,402061551	2,758157427
<i>Taf10</i>	2,713079983	2,649293699	2,824878748	2,373220879	2,763084966
<i>Ikzf3</i>	2,623243181	2,586293905	2,893403306	2,38024368	2,779935093
<i>Slc48a1</i>	2,653280628	2,652902127	2,910929241	2,169380631	2,825984938
<i>Zmynd10</i>	2,575328523	2,241808502	2,31394081	2,580394118	2,784112667
<i>Klf3</i>	2,603089796	2,265863358	2,546346491	2,562209469	3,237792937
<i>Fam89b</i>	2,569247087	2,339070179	2,565532489	2,584658056	2,688878197
<i>AI413582</i>	2,687618483	2,170662453	2,633687578	2,499614123	2,648681809
<i>Orai2</i>	2,407731361	2,069179109	2,566979725	2,457033631	3,011162503
<i>Rbm15b</i>	2,555147402	1,973517718	2,645803221	2,444642316	3,006856011
<i>Emp3</i>	2,958628534	2,181516335	2,549679595	2,659832986	2,62281332
<i>Pip5k1c</i>	2,473025146	2,365210739	2,419596099	2,314794833	2,575157273
<i>Bysl</i>	2,481868537	2,406107347	2,333561265	2,234516479	2,519375958
<i>1700097N02Rik</i>	2,542460337	2,538885682	2,411015116	2,271778012	2,682893149
<i>Hps6</i>	2,457497548	2,361451357	2,305707089	2,401928726	2,696320141
<i>Trim8</i>	2,416170533	2,328171404	2,521305523	2,300072426	2,725521477
<i>Zc3h12a</i>	2,410347209	2,282227268	2,540185725	2,418492744	2,710012385
<i>Gigyf1</i>	2,560450695	2,402919241	2,583327756	2,295303856	2,791985836
<i>Igtp</i>	2,333063103	2,571355273	2,513885402	2,239690848	2,355566046
<i>Pycr2</i>	2,390176454	2,323876171	2,48646963	2,358367917	2,373028029
<i>Plscr3</i>	2,282648483	2,516340478	2,480899081	2,434929932	2,526060986
<i>Egln2</i>	2,204865717	2,503345946	2,647333766	2,507719725	2,469185938
<i>Uck2</i>	2,32928204	2,399036949	2,670015369	2,344205739	2,568743421
<i>Ypel3</i>	2,531915549	2,622437977	2,714511121	2,3176513	2,500835285
<i>Kdm6b</i>	2,40133504	2,586636993	2,696628109	2,31727711	2,562251995
<i>Gm15880</i>	2,480476442	2,575300423	2,615917606	2,43727581	2,559601757
<i>Pxn</i>	2,442756597	2,510645684	2,61664772	2,365046614	2,61383541
<i>Nsmce1</i>	2,549519915	2,685706352	2,690487365	2,482659037	2,646745747
<i>Rem2</i>	2,577105782	2,725526677	2,629375368	2,369342513	2,683403985
<i>Glb1</i>	2,353030944	2,670753331	2,561791798	2,414712981	2,429936164
<i>Nrip1</i>	2,32304414	2,720877225	2,68147524	2,501383423	2,386441345
<i>Tnk2</i>	2,298001885	2,662941316	2,725782847	2,364909335	2,630478469
<i>Aif1</i>	2,285000833	2,558282764	2,947682744	2,293923863	2,620793606
<i>Fam105a</i>	2,319044571	2,542306192	2,735267707	2,589223751	2,881085583
<i>Akna</i>	2,304328674	2,529004942	2,766136108	2,65168419	2,872779623
<i>Def6</i>	2,332086332	2,623229561	2,766533468	2,645102418	2,836010729
<i>Grk6</i>	2,246007676	2,540878338	2,652644239	2,589728917	2,91498578

<i>Ldlrap1</i>	2,395882138	2,39324298	2,697283534	2,734937689	3,108551498
<i>Rnf113a2</i>	2,293188279	2,558097317	2,725090091	2,404374304	3,251657675
<i>Il17c</i>	2,363333651	2,517408961	2,862092107	2,395726218	3,419973274
<i>4930404N11Rik</i>	2,25114474	2,207606054	2,83033291	2,430898264	3,227025885
<i>Pnmt</i>	2,205020757	2,336923463	2,785611829	2,411268388	3,065450839
<i>Mxd3</i>	2,392189611	2,302610305	2,814012248	2,369812957	2,988920975
<i>Armc7</i>	2,314853742	2,401126677	3,061587453	2,378983858	3,003728433
<i>Tmem66</i>	2,198918744	2,237843415	2,84679767	2,425788668	2,802671967
<i>Srebf1</i>	2,358965436	2,376166408	2,659378898	2,171474704	2,757625856
<i>Gm962</i>	2,369096222	2,38618934	2,78240311	2,179351052	2,922708519
<i>D5Ertd605e</i>	2,47468567	2,682848301	2,578992354	2,194805833	3,074904114
<i>Socs3</i>	2,59964547	2,723263044	2,894512737	2,919260071	4,07397012
<i>Gtf2i</i>	2,466504768	2,793077548	3,134924511	2,816425079	3,162716033
<i>Ubxn11</i>	2,795642967	2,699512027	2,984802049	2,696259187	2,938044642
<i>Rara</i>	2,776419349	2,817917896	2,993722366	2,656310472	3,078822697
<i>Gpr183</i>	2,588577829	3,379796969	2,985199642	2,676397204	2,945613577
<i>4930417013Rik</i>	2,478150362	3,131967316	3,031549127	2,616859454	2,902811253
<i>Gnai2</i>	2,599508073	2,885747626	2,921109399	2,75451206	2,883247218
<i>Gm9054</i>	2,695388394	3,376411395	3,74064222	2,810750893	3,285862668
<i>Rbm38</i>	2,722770473	3,161789127	3,263023387	2,754053903	3,201786332
<i>Hmga1</i>	2,723714926	2,93539474	3,175123077	2,624628696	3,006329007
<i>Hmga1-rs1</i>	2,730499878	2,949240716	3,182065235	2,623118303	3,006366838
<i>Rgs10</i>	2,637171237	3,087930176	2,83056452	2,724099086	2,707520792
<i>Dusp10</i>	2,58019481	3,113091231	2,8787521	2,725282765	2,789147872
<i>Hsbp1</i>	2,547864197	2,945465076	3,065932045	2,905485417	2,65387116
<i>Znrf1</i>	2,780260982	2,938694028	2,986819481	2,688551408	2,648078245
<i>Rab3ip</i>	2,534321079	3,065190457	3,258665462	3,223182715	3,376098928
<i>Vps37b</i>	2,516824523	3,418317853	3,688400662	3,356134296	3,749747026
<i>6430527G18Rik</i>	2,574909782	3,843740725	4,175225736	3,99620968	4,397273004
<i>Tap1</i>	2,445938979	3,103542023	3,325538301	3,233951423	3,775154354
<i>Mrpl52</i>	2,538038837	2,980123839	2,841915589	3,105594611	3,360181556
<i>Itpkb</i>	2,340955831	3,143597654	3,252734866	2,996573049	3,205419154
<i>Mex3b</i>	2,345209032	3,149301547	3,284495187	3,446009524	3,557269212
<i>Lef1</i>	2,388048049	3,835977566	3,871258002	3,512727276	3,848958009
<i>Lbh</i>	2,315598859	3,078737994	3,262165467	2,946625224	3,116174088
<i>Rac2</i>	2,40086424	2,905066386	3,104932179	2,901297617	3,079286222
<i>Fam176b</i>	2,599992238	2,903669087	3,08796945	3,0373575	3,316323236
<i>Ucp2</i>	2,621155205	2,855280217	2,972768814	3,012837103	3,112509215
<i>Klf13</i>	2,700469218	2,866862961	3,282490015	2,913907937	3,270361295
<i>Lat</i>	2,729326767	3,32130541	3,429354666	3,034984615	3,332174638
<i>E030018B13Rik</i>	2,693235672	3,338711108	3,682627011	3,506660787	3,519803253
<i>Nab2</i>	2,633727581	4,344160851	4,039224526	3,511261616	3,623417649
<i>Zbtb22</i>	2,654998795	3,223710059	3,478276105	3,680985437	3,636478701
<i>Eid3</i>	2,603161325	2,761364698	2,674491404	3,085710827	3,058823391
<i>Prr24</i>	2,364731485	2,998758365	2,871676899	2,513132095	2,722529596
<i>A430093F15Rik</i>	2,436907717	2,977599308	2,784074603	2,630332438	2,587041639
<i>Itk</i>	2,26742787	2,874264526	2,858374502	2,412736565	2,615949878
<i>Ppp1r16b</i>	2,331608303	2,763495569	2,867724634	2,45135061	2,666927691
<i>Rinl</i>	2,513140923	2,70635092	2,812950144	2,661006332	2,701604586
<i>D16Ertd472e</i>	2,577135489	2,765709794	2,855198304	2,616581827	2,856684272
<i>Mob3a</i>	2,417340954	2,677733309	2,848019543	2,435104349	2,815268804

<i>B9d2</i>	2,474192991	2,774908453	2,728093843	2,47643936	2,882055821
<i>Tapbp1</i>	2,508589165	2,842950437	2,846588697	2,587703607	3,077877244
<i>Rps6kb2</i>	2,372185531	2,834409445	2,869190733	2,622987456	3,032353855
<i>Cd3e</i>	2,502530145	2,751374518	3,060244966	2,64476621	3,065910173
<i>Selp1g</i>	2,365245206	2,726784735	3,460540206	2,6352879	3,165425802
<i>Scd2</i>	2,310896309	3,318723878	3,193778577	2,791784714	3,02716568
<i>Zap70</i>	2,283827055	2,902008292	3,0556285	2,651135758	3,048559046
<i>Nacad</i>	2,160740612	2,692259338	2,816487607	3,007363155	3,127784273
<i>Zfp703</i>	2,14776527	2,772272993	2,924917623	3,109659619	3,308725348
<i>Psemb9</i>	2,025108667	2,783214575	2,982746056	3,028376385	3,32694789
<i>Tubb5</i>	1,970939074	2,733908911	3,16571356	2,919063591	3,472339524
<i>Sept9</i>	2,225631927	2,754868467	2,906397563	2,720990697	2,923339317
<i>Cbx4</i>	2,215748992	2,783016325	2,87903755	2,702992679	3,051919061
<i>Anp32a</i>	2,098006667	2,741411997	2,836246133	2,80733114	2,926275138
<i>Ddit4</i>	2,095286164	2,758999495	2,935815463	3,061421306	2,534429683
<i>Gm5547</i>	2,257693655	2,690673931	3,07950242	3,057590132	2,528849735
<i>Cyba</i>	2,244456133	2,483858368	2,904644315	2,539785036	3,048223863
<i>A530088E08Rik</i>	2,303413383	2,582807217	3,260804196	2,58397964	3,005787153
<i>Gtpbp6</i>	2,255300349	2,575868659	2,828863965	2,7527478	3,209614535
<i>Mvd</i>	2,242352338	2,561063205	2,952558068	2,761937484	3,011320861
<i>Tmc6</i>	2,081342689	2,5810489	2,96086293	2,584372404	2,958266735
<i>Grap2</i>	2,032948676	2,5755143	2,94198813	2,601696099	3,197908359
<i>Gm128</i>	2,129914175	2,377407109	2,984446881	2,975792759	3,264954698
<i>Foxk1</i>	1,146471419	2,440760112	2,771795283	2,842750912	3,112458468
<i>Tgfbr2</i>	1,297448054	2,501811615	2,786105519	2,80665639	3,021583765
<i>Ddx5</i>	1,123184075	2,354129314	2,733732109	2,591111332	2,962479731
<i>Zc3hav1</i>	1,155460781	2,456551267	2,827545898	2,547154378	2,950438304
<i>Myl12a</i>	0,982222579	2,482083831	3,135272546	2,806353767	3,287088908
<i>Aip</i>	1,11962978	2,585225795	2,72035899	2,749771765	2,693704533
<i>Tuba4a</i>	1,149810575	2,62414013	2,846073265	2,645025845	2,638299701
<i>Wdr46</i>	0,889489562	2,59276915	2,482676482	2,822451915	2,724379501
<i>H2-T24</i>	0,998778531	2,726759015	2,540605692	3,042389608	2,828907229
<i>Zfp706</i>	0,787975837	2,341699033	2,540826852	2,461796746	2,593019667
<i>Skil</i>	0,687782199	2,462388396	2,496437764	2,560869326	2,55525154
<i>Pglyrp2</i>	0,966951093	2,585274786	2,402054827	2,512631089	2,674591381
<i>Arhgap30</i>	0,828275251	2,514108324	2,75489987	2,569582184	2,84846227
<i>Nfkbiz</i>	0,938774983	2,423080761	2,599536809	2,522843565	2,859849151
<i>Spsb1</i>	0,921396819	2,462327259	2,832833374	2,543007676	2,672352237
<i>Ptp4a2</i>	1,028100835	2,433986084	2,742597039	2,485287851	2,699955028
<i>Atxn7l3</i>	0,898599121	2,263106875	2,531605454	2,610051056	2,640144564
<i>Fam46c</i>	0,776031457	2,198017755	2,306456591	2,577445665	2,56241853
<i>Enc1</i>	0,983487488	2,174237634	2,341794085	2,711549659	2,768639601
<i>Med11</i>	0,890815621	2,314497018	2,324263887	2,820715331	2,720153959
<i>Clta</i>	0,84776774	1,969531773	2,635763692	2,312688547	2,774927273
<i>Rtp4</i>	0,662960366	2,117693515	2,663927647	2,403535377	2,723698037
<i>Tmem20</i>	0,669946405	1,881614757	2,583310922	2,545495903	2,901989304
<i>Ctsw</i>	0,833083929	2,105732935	3,333710916	2,292697443	3,435283319
<i>Irf9</i>	0,940996816	2,34325966	2,631868562	2,922700793	2,950572338
<i>Amigo2</i>	0,938252017	2,063317527	2,526509388	3,022414045	3,266237711
<i>Lrrc8a</i>	1,209666329	1,995673557	2,892106918	2,858696125	3,312845945
<i>Zfp280b</i>	1,475010659	2,556567845	2,608785339	2,542743382	2,68329899

<i>A130010J15Rik</i>	1,547417018	2,533168602	2,578822588	2,617402989	2,74785361
<i>Ywhab</i>	1,413641892	2,463240682	2,502204436	2,577751434	2,840590742
<i>Ado</i>	1,581463001	2,707214379	2,602998915	2,549156734	2,907207402
<i>Ptbp1</i>	1,446360626	2,487656654	2,747819539	2,650301026	2,882262669
<i>Stk24</i>	1,389438948	2,483552477	2,776855547	2,665128394	2,90761339
<i>Srsf3</i>	1,469548572	2,556943734	2,847743023	2,600189422	2,889656961
<i>Zbtb1</i>	1,412474645	2,479018283	2,744442869	2,499349453	2,869893422
<i>Tmbim6</i>	1,411628863	2,382959691	2,824287097	2,646345049	2,802339848
<i>Myc</i>	1,635145764	2,481897791	2,789932487	2,615062957	2,860672798
<i>Mbd2</i>	1,571605378	2,456727333	2,769558454	2,523693348	2,696115049
<i>Rcan3</i>	1,437720354	2,551353472	2,409101273	2,526570303	2,316951406
<i>Dusp1</i>	1,556456765	2,573992854	2,475000153	2,648662484	2,297680313
<i>Cmtm6</i>	1,604715525	2,5511804	2,417416369	2,531842229	2,541996491
<i>Gimap4</i>	1,618748711	2,526978522	2,526559038	2,709568236	2,445501778
<i>Mepce</i>	1,647207234	2,364677911	2,594136558	2,781254802	2,345266501
<i>Arf3</i>	1,094110711	2,372787662	2,599971735	2,134882422	2,530583961
<i>Itgb2</i>	1,156351899	2,413760718	2,474790644	2,206991075	2,400440421
<i>Ywhaz</i>	1,098461788	2,611378678	2,638521199	2,26229274	2,501979096
<i>Gimap3</i>	1,075931651	2,438658419	2,519183206	2,223971905	2,160553535
<i>Grap</i>	1,531084321	2,46669438	2,448613298	2,298050591	2,476575555
<i>Cela1</i>	1,483475881	2,382030506	2,386309013	2,219458959	2,441515874
<i>Scamp3</i>	1,434754953	2,455636566	2,449767346	2,237224338	2,603624247
<i>Myliip</i>	1,389044922	2,477817513	2,27245902	2,396023312	2,43711911
<i>Prkcq</i>	1,24512522	2,467434524	2,538416524	2,41259232	2,573402513
<i>Zbed6</i>	1,259244434	2,323495784	2,43285637	2,321237876	2,55258076
<i>Ldb1</i>	1,210402316	2,398943438	2,480748693	2,473579189	2,388923048
<i>Emg1</i>	1,436797891	2,339789049	2,558692668	2,447438629	2,512375737
<i>Siah1a</i>	1,24219263	2,328235752	2,704274218	2,24939625	2,548761949
<i>Arrb2</i>	1,224252036	2,395681864	2,895278366	2,366572328	2,669762127
<i>Mettl7b</i>	1,091641104	2,383222967	2,808578076	2,483027331	2,436078976
<i>Kbtbd2</i>	1,163687625	2,346238078	2,58817455	2,388156202	2,761181948
<i>Clk1</i>	1,055367272	2,315727424	2,541993901	2,340061658	2,674091549
<i>Ddx6</i>	1,094761623	2,259265888	2,554494131	2,452313304	2,864645222
<i>Tmed1</i>	1,095623057	2,169671019	2,660552815	2,291907777	3,147131839
<i>Vasp</i>	1,141671638	2,254613482	2,624227836	2,210987957	2,877123603
<i>Psme1</i>	1,200392736	1,904018565	2,814576093	2,492527112	3,141909297
<i>Tpst2</i>	1,380385598	2,061569321	2,84979335	2,215239554	3,12484936
<i>Dvl2</i>	1,428776779	2,029648182	2,651622511	2,377486237	2,927763222
<i>Twf2</i>	1,461199539	2,064380927	2,642567383	2,267442738	2,842389013
<i>Panx1</i>	1,276088446	2,127070273	2,557474059	2,303251101	2,788443981
<i>Gli1</i>	1,278039989	2,154443081	2,609094359	2,289387533	2,830482669
<i>Stk10</i>	1,538813137	2,087628009	2,564865016	2,535987928	2,877387341
<i>Ppp2r5a</i>	1,535499284	2,094957575	2,468274663	2,478583946	2,754416318
<i>Prkch</i>	1,63441851	2,237988838	2,665982044	2,473806154	2,876357507
<i>Ccdc88c</i>	1,639818949	2,329698327	2,604333971	2,507091882	2,799586629
<i>Npc2</i>	1,573237794	2,255148092	2,794263307	2,378767308	2,812792098
<i>Ankrd11</i>	1,595601125	2,291036681	2,541208976	2,304408936	2,644639822
<i>Elov15</i>	1,572220892	2,206603309	2,54895766	2,346994534	2,728238916
<i>Ggn</i>	1,602448344	2,269105301	2,57499312	2,216461293	2,85536047
<i>Tmem189</i>	1,674767073	2,067086631	2,521415164	2,091750366	2,680450268
<i>Map4k2</i>	1,604414143	2,045108152	2,736191982	2,16969709	2,660718401

<i>Rab35</i>	1,461608886	2,147523406	2,49193663	2,160922497	2,590738927
<i>Rmnd5b</i>	1,436892926	2,181941626	2,45128904	2,242494663	2,509235963
<i>Cecr6</i>	1,44643066	2,198797133	2,596874256	2,195206418	2,523935453
<i>Cd37</i>	1,481587235	2,271814021	2,385471041	2,788299637	2,842635614
<i>Rpl13a</i>	1,522887093	2,047663369	2,32643176	2,972959509	3,493694236
<i>Nfe2l2</i>	1,512724897	2,186084513	2,681195727	2,699751723	2,9353225
<i>Cdc42se1</i>	1,528618293	2,20481394	2,62683379	2,960899709	3,135190348
<i>Thap3</i>	1,433914214	2,108133811	2,288686544	2,669540256	2,689248688
<i>Eef2</i>	1,403201369	1,954094326	2,307106892	2,662387061	2,829222276
<i>Arhgef1</i>	1,23806275	2,136109772	2,419992799	2,567918856	2,725058593
<i>Frmd8</i>	1,365272828	2,12172655	2,442498262	2,5122427	2,681639301
<i>Cd79a</i>	1,19234886	2,242654539	2,564564373	2,665855503	2,820374491
<i>Appt</i>	1,755655581	1,967492226	2,736165613	2,559389953	3,316951915
<i>Dtx1</i>	1,810037935	1,984424374	2,445073404	2,710791913	3,298600149
<i>Irf2bp1</i>	1,692244937	1,89034889	2,385021034	2,384290414	3,292581266
<i>Rpl18</i>	1,710803568	2,071185703	2,3062235	2,393248462	2,955064898
<i>Eif4a2</i>	1,320758134	2,710142227	2,957460789	2,652195771	2,963872345
<i>Chchd10</i>	1,411466882	2,685989684	3,033402273	2,692898017	2,842013975
<i>Arid1a</i>	1,464301245	2,695356039	2,854809308	2,601653008	2,776823549
<i>Cdk17</i>	1,479361025	2,657199522	2,789736512	2,527882386	2,853364995
<i>Itm2b</i>	1,585882247	2,727379235	2,779127927	2,721226202	2,828755139
<i>Etv3</i>	1,488576517	2,860034533	2,796413128	2,750793565	2,813817326
<i>Srsf9</i>	1,321205851	2,842916453	2,813938363	2,783231154	3,226226346
<i>BC024582</i>	1,254101868	2,748330437	2,701167215	2,832280291	2,928044613
<i>Gramd1a</i>	1,414043079	2,622235685	2,767899915	2,787995593	3,272386471
<i>Cd68</i>	1,578835201	2,887520711	3,059784072	2,49420398	3,502171974
<i>U2af1l4</i>	1,449650018	2,963721239	3,232302045	2,70667802	3,541128654
<i>Zfp281</i>	1,33214927	3,173109279	2,789850103	2,445045031	2,866377886
<i>Zfp36l1</i>	1,262703333	4,055934919	3,873741735	3,350449767	3,659360973
<i>B3galt4</i>	1,35616481	3,295089249	3,342967456	3,178998199	3,979971977
<i>Isg15</i>	1,153451103	2,995716033	3,373678743	3,806484762	3,177173687
<i>Gpr18</i>	0,905570096	3,570454413	3,794317792	3,49737786	4,055207518
<i>Tmem149</i>	1,025230617	2,948674931	3,425587645	2,975665712	3,339048697
<i>Cd7</i>	0,559154821	2,608282253	2,916815117	2,699129519	3,158840969
<i>S1pr1</i>	0,684437676	3,086182189	3,226308209	2,468793924	2,632414594
<i>4930502E09Rik</i>	2,164695808	2,40156596	2,724662519	2,760624491	3,407066136
<i>Plcxd1</i>	2,127681237	2,350113682	2,794676595	2,744694128	3,163798747
<i>Il21r</i>	2,147281299	2,265114868	2,900514975	2,626913727	3,030913421
<i>Coro1a</i>	2,068053347	2,203951265	2,714816872	2,724926702	2,961254028
<i>Pygm</i>	2,084264003	2,202905662	2,652276415	2,554891437	3,043762599
<i>Coro1b</i>	2,045640866	2,252417453	2,474961301	2,70301171	3,134168131
<i>Mfsd10</i>	2,053657741	2,267347252	2,368312233	2,577621713	2,916426731
<i>2410016O06Rik</i>	2,044933706	2,068722042	2,475879714	2,687961618	2,866060208
<i>Ncf1</i>	1,984506988	2,443792715	2,755247056	2,402788076	3,151118925
<i>Fam107b</i>	2,107391216	2,394709532	2,661100517	2,419351674	2,926139121
<i>Laptm5</i>	2,118707048	2,676633846	2,714971156	2,445419843	2,910288404
<i>Cd3g</i>	2,014776582	2,325427898	2,648674223	2,350716756	2,71607583
<i>Ptpn6</i>	1,981280329	2,440720639	2,73901741	2,327899969	2,727515503
<i>Keap1</i>	1,94802541	2,394496568	2,593993703	2,358439552	2,84234266
<i>Spns1</i>	1,970065964	2,481291774	2,495731873	2,467016254	2,776368082
<i>Gpr132</i>	1,953805654	2,467938361	2,471974553	2,376937068	2,695792059

<i>Wasf2</i>	2,054797169	2,459133739	2,554207112	2,394786222	2,669932104
<i>Cyth4</i>	1,819365454	2,229832151	2,752677792	2,277589239	2,845868061
<i>Acp5</i>	1,946119409	2,203561466	2,73440764	2,244390231	3,468904553
<i>Eef1a1</i>	1,863517037	2,27018953	2,748759708	2,408447425	3,080644538
<i>Sbk1</i>	1,908338252	2,246334887	2,686102331	2,461379887	2,903437417
<i>Hcst</i>	1,607506992	2,089395767	2,953219161	2,560775665	3,010741747
<i>2610019F03Rik</i>	1,679476806	2,175346575	3,223038572	2,573563425	3,2251831
<i>Zbtb7a</i>	1,696805696	2,215827253	2,802458318	2,513264791	3,232227761
<i>Sik1</i>	1,973310792	2,049833914	2,775751169	1,895982658	2,880215837
<i>Hdac7</i>	2,027213393	2,113943847	2,780858158	1,923683561	2,712238984
<i>Ly6g5b</i>	1,871664098	2,072315486	3,243388023	2,07735089	3,198226681
<i>Pmepa1</i>	1,736736936	1,969467319	2,923992652	2,094302244	3,003300791
<i>Grifin</i>	2,062222979	1,983609333	2,587257083	1,972952539	3,31249407
<i>Rras2</i>	1,805592438	2,029090994	2,658725628	2,15621519	3,061603316
<i>Cirbp</i>	1,984231695	2,016968989	2,568255051	2,389108793	3,418753614
<i>Bcl9l</i>	2,025181821	1,822678777	2,610607269	2,279173685	3,125049021
<i>Sh2b1</i>	1,770555287	2,359393941	2,508139313	2,345113484	2,42321701
<i>Snx18</i>	1,669565369	2,494773197	2,442413329	2,34751213	2,434170909
<i>Shisa5</i>	1,541455702	2,322879966	2,526915526	2,227880746	2,395031626
<i>Dedd2</i>	1,772365909	2,449468155	2,324980946	2,169082672	2,543714142
<i>Mlec</i>	1,842288584	2,518969897	2,425153689	2,133479556	2,398357245
<i>Tnfaip3</i>	1,658952045	2,510511993	2,672537864	2,135722476	2,595432609
<i>Elk3</i>	1,663061329	2,481126911	2,562391039	2,185458437	2,51913576
<i>Arf5</i>	1,585634606	2,691135067	2,632536092	2,280275832	2,54285575
<i>Vezf1</i>	1,699371951	2,565706861	2,589941479	2,303907489	2,587719211
<i>Ikzf1</i>	1,835055046	2,499111285	2,645998041	2,336473256	2,549555587
<i>Slc35b2</i>	1,713779336	2,402482078	2,382739546	2,373184622	2,703077811
<i>Gltp</i>	1,671678541	2,316378319	2,508042642	2,389212314	2,763785059
<i>Tle3</i>	1,673670108	2,372517996	2,521963861	2,407102978	2,657029718
<i>Rbfa</i>	1,642009906	2,415782909	2,551579662	2,469885432	2,622074863
<i>Sh2d2a</i>	1,63674509	2,407686065	2,616099718	2,359613616	2,586867081
<i>Gm20605</i>	1,818081047	2,204112988	2,497792431	2,32711689	2,572349058
<i>6530439I21</i>	1,742194322	2,184177366	2,533599355	2,259582282	2,59482976
<i>Elf1</i>	1,635872329	2,262431216	2,485012841	2,275020597	2,51947516
<i>Jak1</i>	1,726558473	2,287596825	2,517909224	2,259164805	2,510929075
<i>Kif21b</i>	1,773864665	2,328888197	2,350328053	2,29745189	2,529793416
<i>Pik3r1</i>	1,840052591	2,325680843	2,372056783	2,355172657	2,606325417
<i>Bcdin3d</i>	1,774550458	2,213708289	2,364079603	2,366537012	2,579421096
<i>Tob1</i>	1,864476485	2,281097631	2,486834242	2,251816803	2,64331567
<i>Rcc2</i>	1,853171586	2,296271868	2,47633479	2,311417485	2,722367545
<i>Fmn1l</i>	1,875820121	2,351301815	2,584500138	2,251761076	2,680346435
<i>Zfp513</i>	1,767579054	2,353053802	2,338146613	2,179383416	2,790060496
<i>1110038F14Rik</i>	1,653499821	2,322870555	2,154146292	1,997472877	2,783931548
<i>Ubc</i>	1,525259902	2,38767694	2,279624788	2,064584172	2,599817539
<i>Fam58b</i>	1,679484629	2,609211928	2,417257108	2,174129084	2,951270303
<i>Tctex1d4</i>	1,504973271	2,53358072	2,017392427	2,396836972	2,911720358
<i>Ptger1</i>	2,009085793	2,436370047	2,368050489	2,4543005	3,172145587
<i>Nme3</i>	1,864540947	2,453866364	2,132685808	2,429250245	3,340346505
<i>Tbx6</i>	1,724362346	2,490693069	2,493173512	2,658270352	2,99428266
<i>Slc39a7</i>	1,713189664	2,515637914	2,2555447	2,577727676	3,01838312
<i>Gm15706</i>	1,927200967	2,506574139	2,335795939	2,77253692	2,610622299

<i>Krtcap3</i>	2,156453739	2,575152939	2,224379811	2,685047245	2,612909294
<i>Vamp2</i>	2,135082039	2,291651222	2,198241253	2,598884877	2,588564708
<i>Cdca4</i>	2,09934855	2,378506567	2,527118779	2,485059847	2,517197802
<i>Lck</i>	2,166358232	2,356983744	2,612194636	2,479076998	2,533687072
<i>Dgkz</i>	2,017849868	2,518931804	2,571669743	2,487349757	2,540352424
<i>Cited2</i>	2,164952744	2,48276366	2,496905096	2,595544162	2,252981719
<i>4933411E08Rik</i>	1,936624271	2,418529851	2,40864602	2,353777089	2,424842122
<i>St8sia1</i>	1,961489043	2,410552657	2,348253226	2,355094448	2,409463813
<i>Degs1</i>	2,033877502	2,457791702	2,419540487	2,40522733	2,431811736
<i>Rrad</i>	1,976017068	2,334787792	2,417586625	2,493438288	2,276515707
<i>Stat5b</i>	2,083872178	2,478623157	2,557629225	2,206875054	2,364477973
<i>Adcy6</i>	2,054643113	2,403609049	2,657639517	2,366381098	2,327942502
<i>Gimap9</i>	2,043058758	2,6561782	2,573937075	2,347850919	2,213878266
<i>Cd28</i>	2,068652692	2,811901091	2,742126982	2,46855	2,385382712
<i>Gata3</i>	1,942721464	3,000542998	2,532465222	2,551014854	2,281510552
<i>Dusp7</i>	1,825536281	2,806000409	2,51111956	2,455703818	2,536278657
<i>Rps11</i>	1,80998932	3,216809223	3,652714232	2,302580551	2,383793571
<i>Klf2</i>	2,243219841	3,52062575	4,25334922	2,162286295	2,573150823
<i>Etnk1</i>	1,746704165	2,962548788	2,903272666	2,733202936	2,783605542
<i>Slc9a3r1</i>	1,811623071	2,917826088	3,162740256	2,76528396	3,103088196
<i>Ccr4</i>	1,719419875	3,080254306	3,098967139	2,469618054	2,764877023
<i>Tmem88</i>	1,800225652	3,174083216	3,052273187	2,739951938	2,509247514
<i>I730030J21Rik</i>	1,880777459	3,047093587	3,366263043	3,083500136	2,572319965
<i>Pnrc1</i>	1,475180367	2,999753003	2,965395909	2,835888122	2,729993045
<i>9330175E14Rik</i>	1,540993421	2,769398019	3,476713624	2,997053576	2,687340468
<i>Tnfaip8l2</i>	1,656596261	3,325150401	3,564797487	3,944892342	4,264367844
<i>Supt4h1</i>	1,670347294	3,349725128	3,489026895	3,248099438	3,309421847
<i>Sh3bgrl3</i>	1,715105352	3,006995502	3,182191556	3,019441522	3,324454048
<i>Rap1b</i>	1,62984363	3,117117172	3,202704589	2,895579104	3,256351032
<i>BC021614</i>	1,538872612	2,89625254	2,838438638	3,271187627	3,10426149
<i>Gpr146</i>	1,586977873	3,113071903	2,780474634	3,269200823	3,294176624
<i>Cd5</i>	2,009538456	3,459679735	3,129670664	2,753603507	3,224224638
<i>Arhgdib</i>	2,014613571	2,946592062	3,218300405	2,869691765	3,237167584
<i>Rhof</i>	2,07374911	2,974823801	2,928749553	2,727847951	2,914961464
<i>Rnf145</i>	1,986322756	2,89523035	2,790184346	2,863840621	2,908588198
<i>Midn</i>	2,003626177	2,911746485	2,83555434	2,915020161	3,02559653
<i>Isyna1</i>	2,134746834	2,99585502	2,92520689	3,391330888	3,675418077
<i>Cotl1</i>	2,03942199	3,035076413	3,48886248	3,151043288	3,720277284
<i>Cnn2</i>	2,19518978	2,884698837	3,407639671	3,205837946	3,883991997
<i>Dyrk2</i>	2,192274734	2,863469667	3,694917576	3,460230562	3,982033418
<i>Ski</i>	2,149799096	2,911105659	3,026933055	3,142285634	3,252808438
<i>Slc38a2</i>	2,217231203	2,918455464	3,341482692	2,956184204	3,311732568
<i>Csk</i>	2,187947211	2,960694333	3,108513599	2,968983361	2,994412217
<i>Kbtbd11</i>	1,908047312	3,011145135	2,870942274	3,226377228	3,220445879
<i>Abhd8</i>	1,920187847	2,982259536	2,922743624	2,920392142	3,269422222
<i>Galnt6</i>	1,910614373	3,01532968	3,016965484	3,034509417	3,10253725
<i>Egr1</i>	1,940757987	4,444837899	4,12518096	3,988595594	4,151245816
<i>HnrnpI</i>	1,896308128	2,961424762	3,263688533	3,042231005	3,209523541
<i>Myh9</i>	1,945357445	2,967323659	3,33157232	3,018531591	3,357598225
<i>Sfn</i>	1,969240931	3,08198343	2,988120223	3,370810561	3,156710416
<i>Rln3</i>	1,864075549	2,981965612	3,428843544	3,051146742	3,847114581

<i>Trex1</i>	1,834039593	3,539964563	3,955872227	3,360379404	3,442653429
<i>Leprotl1</i>	1,801240802	2,983065978	3,108676194	3,085078919	3,289632775
<i>Ccr8</i>	1,811624015	4,33192073	3,528872639	3,850021927	3,544320516
<i>Ifngr2</i>	1,784352974	3,08292602	2,990057082	3,026805683	3,06179673
<i>Slfn2</i>	1,826297224	2,529632873	2,849572483	2,680414229	3,057457197
<i>Gnb2</i>	1,849480564	2,534494392	2,868696806	2,683932384	3,004413821
<i>Mdk</i>	1,942836485	2,516660967	2,887594748	2,663520028	2,92483859
<i>Itrip</i>	1,760033732	2,472723019	2,783513778	2,700029299	2,952929926
<i>Ddx39b</i>	1,781135233	2,369742677	2,758101918	2,748680893	3,015276475
<i>Hnrpd1</i>	1,637237415	2,609927842	2,755902099	2,792265113	3,115314813
<i>Gna13</i>	1,606124121	2,567949331	2,692230601	2,656572142	2,98559923
<i>Ccm2</i>	1,79481501	2,602444271	2,753648007	2,655427726	2,979064937
<i>BC100451</i>	1,838089133	2,630911386	3,10037828	2,538925119	3,007073133
<i>Cfl1</i>	1,698918588	2,718573313	2,968931014	2,627186247	3,262627626
<i>Mknk2</i>	1,94594482	2,604855695	3,050177091	2,823783986	3,705310285
<i>Vgll4</i>	1,94116326	2,761309033	3,024337131	2,792901983	3,069444381
<i>Zdhhc18</i>	1,825563345	2,688718567	2,976809838	2,730701353	3,056090829
<i>Eif2c2</i>	1,882246878	2,650845458	3,045382782	2,699659895	2,910101925
<i>Ppp1cc</i>	1,927386475	2,398588891	2,883908777	2,536853774	2,825222827
<i>Mylpf</i>	2,009091323	2,420579823	2,86450262	2,502693953	2,725732494
<i>Slfn1</i>	1,832101455	2,588872277	2,955253399	2,727981672	2,733601051
<i>Flt3l</i>	2,014216085	2,355642337	2,691844743	2,722380121	2,794737434
<i>Foxo4</i>	1,94961635	2,434350019	2,742196455	2,670585611	2,880539107
<i>Pbx2</i>	1,986066233	2,614915849	2,573741441	2,689468536	2,738047596
<i>Fam102a</i>	1,721175452	2,77458241	2,710402235	2,52710406	2,734047616
<i>Rasgrp1</i>	1,727912754	2,736775551	2,732571778	2,455959466	2,535721628
<i>Lasp1</i>	1,762420401	2,566365275	2,650935723	2,605551439	2,692557985
<i>Ubac2</i>	1,71695692	2,647271947	2,593716266	2,589089112	2,690271569
<i>Map4k4</i>	1,680615757	2,548539372	2,653252126	2,5044997	2,709703922
<i>Arhgap9</i>	1,858531313	2,614084016	2,692538493	2,406003456	2,848897468
<i>Grcc10</i>	1,843277932	2,713439582	2,706641497	2,376800232	2,872466663
<i>Nat9</i>	1,840281704	2,588575951	2,79048908	2,427794954	2,82158676
<i>Il6st</i>	1,947593978	2,71315279	2,766517509	2,526616121	2,688239451
<i>Mboat4</i>	1,86206657	2,650126667	2,688683223	2,460280673	2,652348667
<i>Cd6</i>	1,902035395	2,958453655	2,706135659	2,667404644	2,657319192
<i>Al847159</i>	1,961248731	2,790074092	2,73279191	2,694472547	2,68006176
<i>Tmc8</i>	1,804035614	2,8032433	2,765777237	2,694936162	2,836326349
<i>Dusp5</i>	1,810787846	2,742425342	2,762413917	2,629536665	2,731490921
<i>Map3k1</i>	1,82240747	2,74537486	2,640895266	2,734370212	2,756940172
<i>Ugcg</i>	1,871904725	2,870930437	2,632001426	2,734312304	2,911479074
<i>BC033916</i>	1,581823691	2,960647896	2,389010021	2,902571272	3,385790672
<i>1810010H24Rik</i>	1,965618079	2,893271246	2,533599826	3,069495447	2,884322586
<i>Daxx</i>	1,977410158	2,460037384	2,436907636	2,937146771	2,917479089
<i>Cdk2ap2</i>	1,97159933	2,623872851	2,585002764	3,503414912	3,808509798
<i>Sap25</i>	2,055175304	2,605941018	2,346487868	2,785809982	3,475677383
<i>Lfng</i>	1,686363407	2,565097042	2,957775791	3,290039731	3,739036061
<i>Foxo1</i>	1,689398214	2,509152781	3,033461988	3,134757499	3,359662063
<i>Ing1</i>	1,536612511	2,419096493	2,930330998	2,769183394	2,944990376
<i>Gm10345</i>	1,613985618	2,150070543	3,163895334	3,281353781	3,79060087
<i>Tnfrsf25</i>	1,324379257	2,780685355	2,96844238	3,201917624	2,97305516
<i>Rac1</i>	1,421346836	2,731640355	2,997118292	2,920058816	3,291541464

<i>B2m</i>	1,385288906	2,601058758	3,149737454	3,033651206	3,277566952
<i>Smad7</i>	1,149054905	2,710368351	3,4402401	3,401187585	3,75000711
<i>Irf1</i>	1,275795607	2,476064642	3,039118053	2,863012186	3,359967456
<i>Pik3cd</i>	1,327400693	2,38205278	3,333669751	3,036159258	3,720269046
<i>Sun2</i>	1,362369951	1,90971188	2,273399448	2,208468458	2,662194964
<i>Prkd2</i>	1,302579495	1,820341545	2,117491115	2,226420226	2,640892897
<i>Gramd4</i>	1,390904059	1,936847504	2,069178863	2,286681998	2,767975609
<i>Agpat1</i>	1,498958735	1,792218908	2,101293359	2,211835202	2,397605064
<i>Scml4</i>	1,340263038	1,806363671	2,089311679	2,233380753	2,467289574
<i>Athl1</i>	1,449726878	1,853438841	2,176968668	2,149679848	2,433260209
<i>Strn4</i>	1,428849833	1,913449293	2,266313984	2,157451213	2,445244683
<i>Cyth1</i>	1,361691935	1,90628322	2,191053288	2,210394	2,518329725
<i>Nudt3</i>	1,336459091	1,909776804	2,452764392	2,129380322	2,55255749
<i>Gm10640</i>	1,388025583	1,952928706	2,345744958	2,127594592	2,533472511
<i>Pcif1</i>	1,387346109	1,770408371	2,406414221	2,217062028	2,579102391
<i>Wbp2</i>	1,269538219	1,901507058	2,274308484	2,297958174	2,426500729
<i>Sf1</i>	1,235438039	1,848265861	2,262406774	2,199470028	2,428469561
<i>Ubtf</i>	1,721790122	2,058136727	2,209559431	2,278236062	2,567385999
<i>Il17ra</i>	1,77664682	1,948829027	2,128577849	2,210871399	2,535401673
<i>Dos</i>	1,736830417	1,88077769	2,201969806	2,242230434	2,591174766
<i>D4Wsu53e</i>	1,753470326	1,928086623	2,268512838	2,313049442	2,595147911
<i>Ctdsp1</i>	1,700935846	1,841948722	2,25470448	2,370966664	2,476088209
<i>Men1</i>	1,792957385	1,782622031	2,139296298	1,997231637	2,444055987
<i>Qtrt1</i>	1,715567388	1,715712615	2,192812896	2,12001332	2,418759054
<i>Cbx7</i>	1,868915668	1,821960933	2,080999928	2,155047074	2,490689874
<i>Ptpn1</i>	1,38810639	2,05344463	2,325467408	2,347158535	2,632089004
<i>Tet3</i>	1,453848134	2,077123558	2,398608613	2,296874686	2,604798745
<i>Gpr171</i>	1,491180843	2,103338723	2,308647635	2,368005378	2,632493234
<i>Neurl3</i>	1,432902852	2,114399754	2,306239281	2,31946041	2,667662607
<i>Il27ra</i>	1,454743623	2,013640248	2,469062593	2,324220791	2,698000604
<i>Srf</i>	1,597681374	1,982144353	2,272677407	2,240821016	2,588493417
<i>Nfatc1</i>	1,471485466	2,028307743	2,25768333	2,180168177	2,533261945
<i>Osm</i>	1,479602092	2,035427776	2,168257565	2,261873625	2,648045233
<i>Qprt</i>	1,640748161	2,148409669	2,369609783	2,333905609	2,496431349
<i>Irgm2</i>	1,55187864	2,143651784	2,385939754	2,257437001	2,531644031
<i>Itpk1</i>	1,489385537	2,060271964	2,398026712	2,186133663	2,491462026
<i>Pag1</i>	1,494642538	2,094803426	2,48578485	2,206556494	2,485760528
<i>Zadh2</i>	1,599964314	2,174325699	2,334830337	2,083007301	2,490415889
<i>Usp36</i>	1,748625663	2,138061685	2,333469583	2,174068298	2,564689602
<i>Adamtsl4</i>	1,684794442	2,077567332	2,467448424	2,146583332	2,410819876
<i>Yeats4</i>	1,701374076	2,140597988	2,462948786	2,160533422	2,534477589
<i>Ssbp4</i>	1,63710395	2,022416501	2,238498687	2,055494358	2,536693816
<i>B4galt1</i>	1,648155637	2,009067811	2,185506399	2,134864468	2,533676683
<i>Mbd6</i>	1,573093788	1,991254535	2,132371222	1,963642006	2,519770572
<i>Dnm2</i>	1,560220593	1,95612295	2,268851102	2,032914538	2,403370932
<i>Fbxl14</i>	1,663501767	1,882610426	2,283118873	2,06747933	2,418977301
<i>Gipc3</i>	1,566241916	1,777253219	2,335978202	1,958701059	2,655502323
<i>Dnajb1</i>	1,701270458	2,065410263	2,436156791	1,86386415	2,701761134
<i>Aldoa</i>	1,768826824	2,155925666	2,299695502	1,914487396	2,576117217
<i>Nbeal2</i>	1,638100205	2,115404426	2,376174022	1,993315211	2,430465658
<i>Plekhg2</i>	1,568155942	2,117286705	2,471834029	1,96250819	2,382087516

<i>Cd82</i>	1,6057931	2,040967428	2,248308393	1,964719921	2,373030376
<i>Gm10804</i>	1,577851756	2,110526336	2,255614205	1,898448286	2,347388208
<i>0610009L18Rik</i>	1,425208968	2,196394357	2,188410915	1,777596117	2,38061496
<i>Zbtb9</i>	1,511997512	2,279176939	2,201884768	1,930251028	2,453447227
<i>Mef2d</i>	1,495744294	2,033126243	2,278038933	1,993479065	2,316747727
<i>Usp7</i>	1,433214771	2,038225181	2,345975435	2,031183427	2,315936542
<i>Ablim1</i>	1,436980702	2,041443402	2,221242122	2,108365213	2,320365164
<i>Trim25</i>	1,452480822	2,029832977	2,133345775	2,043299843	2,432891943
<i>Rassf2</i>	1,424284504	1,983414362	2,185658993	2,041521433	2,386641424
<i>Ube2v1</i>	1,404821226	1,988528106	2,199897815	1,960090268	2,591265159
<i>Tubb4a</i>	1,334236802	2,009240118	2,21602817	2,056177622	2,58219815
<i>Gm10814</i>	1,437443971	2,191327765	2,219774821	2,017148751	2,621138375
<i>Mogs</i>	1,516120082	1,938116353	2,563463236	1,893918838	2,610938736
<i>D17H6S53E</i>	1,47313052	1,930640325	2,495855154	1,86372129	2,412477453
<i>Atp5a1</i>	1,277062749	1,8441191	2,440096167	1,990478501	2,452311599
<i>Btbd6</i>	1,67567949	1,993618801	2,078695884	2,676058018	2,509906066
<i>Myl12b</i>	1,824170892	1,991433177	2,267854242	2,498304865	2,62457907
<i>Trim56</i>	1,583149289	2,0323431	2,07496605	2,330343204	2,235786833
<i>Setd6</i>	1,550299974	2,067613728	1,985181458	2,500943086	2,27930389
<i>Calm1</i>	1,392762846	2,112433576	2,081607796	2,369660239	2,377692503
<i>Stk4</i>	1,464295427	2,212047779	2,406409209	2,428313803	2,646951127
<i>Ager</i>	1,486184579	2,18054197	2,383379374	2,485589739	2,608302783
<i>Fyn</i>	1,613036904	2,322387596	2,378467987	2,476620574	2,607209103
<i>A930015D03Rik</i>	1,562523491	2,289415139	2,328893589	2,472433961	2,433084139
<i>Galnt10</i>	1,439945274	2,267873191	2,345041931	2,508543379	2,477675312
<i>Sertad1</i>	1,665890308	2,124847487	2,279515079	2,552098721	2,564947825
<i>H2-Q4</i>	1,536863132	2,156213395	2,245708456	2,519818618	2,679147209
<i>Fbxl3</i>	1,404804643	2,134117927	2,302884987	2,25219098	2,574768419
<i>Hsp90ab1</i>	1,341421353	2,218634555	2,255276927	2,307018466	2,615954731
<i>Gimap8</i>	1,514985615	2,291056987	2,232097643	2,317145454	2,50927418
<i>Commd8</i>	1,589252152	2,28538502	2,225131079	2,303888578	2,527070281
<i>Il6ra</i>	1,28003303	2,262371854	2,084881269	2,484990631	2,734414253
<i>Tspyl3</i>	1,409642505	2,241812385	2,156152137	2,532129166	2,663371633
<i>Cd47</i>	1,242967201	2,176121256	2,212735917	2,579293369	2,489454645
<i>Pstpip1</i>	1,23389703	1,910827637	2,297770985	2,053576226	2,184884306
<i>Gm6793</i>	1,184464575	1,810028748	2,278352118	2,085625341	2,275461871
<i>Hnrnpa3</i>	1,107199769	1,746109927	2,276672981	1,915630009	2,142409685
<i>Rbmxl1</i>	1,130406187	1,86353299	2,309415692	2,143405811	2,032520516
<i>Hnrnpu</i>	0,97966924	1,8701812	2,43407234	2,023171224	2,162629277
<i>Eif4h</i>	0,931044823	1,988616497	2,369368424	2,122377916	2,206456134
<i>Gm11346</i>	1,158630481	1,82009695	2,613386494	2,034284604	1,842806788
<i>Clcf1</i>	1,593143733	1,837418647	2,584393866	2,360061717	2,327676986
<i>Actg1</i>	1,650727276	1,918640352	2,445502669	2,517181047	2,301690225
<i>Tspyl1</i>	1,437438753	1,938343769	2,597560983	2,421312028	2,184764797
<i>Irf7</i>	1,513574737	1,75222581	2,226592105	2,668317403	2,10682072
<i>Arl6ip4</i>	1,618081385	1,77061426	2,239083102	2,466216757	2,164572692
<i>Kif23</i>	1,354350798	2,145192191	2,100398776	1,815691046	1,936830201
<i>Mapk6</i>	1,402143977	2,083368276	2,206156596	1,903237532	2,027817268
<i>Kcnmb4</i>	1,176052718	2,16245472	2,252277245	1,81707825	2,035451248
<i>Stk17b</i>	1,265054703	2,241870085	2,019544926	1,612006561	1,809757271
<i>Lin37</i>	1,392748571	1,958550308	2,078681302	2,1092076	1,938096601

<i>Runx1</i>	1,49158697	2,030402096	1,954987075	2,04512961	1,844875526
<i>Lpcat3</i>	1,682572705	2,067463811	2,058268292	2,074124526	1,974783049
<i>Ccng2</i>	1,530235427	2,15283069	2,064304817	2,06522676	2,001361667
<i>Gm5069</i>	1,539705533	2,139379017	1,882105504	1,921936861	1,800186082
<i>1810026B05Rik</i>	1,50368163	2,196252787	2,038537602	1,903049427	1,717766913
<i>Cap1</i>	1,147881451	1,811839687	2,080924165	1,851669338	2,058068664
<i>Dlg4</i>	1,168643931	1,873463033	2,077349044	1,826253427	2,094520402
<i>Usp10</i>	1,195391075	1,903537552	2,055861623	1,887405649	2,10088408
<i>Sppl3</i>	1,198851835	1,866672011	2,036758727	1,894577033	2,160814787
<i>Nfkb1</i>	1,14352436	1,932499969	2,00628983	1,812945836	2,078562447
<i>Ppp1r18</i>	1,128924403	1,985653526	2,157386225	1,952877442	2,07941005
<i>Smad4</i>	1,103609163	1,845407068	1,992816227	1,971587724	2,164674149
<i>Rnf114</i>	1,220411792	1,785632871	2,036286536	1,972839335	2,069165815
<i>Card11</i>	1,364980075	1,893391574	2,036015097	2,049710557	2,157534168
<i>Tspan14</i>	1,29957965	1,910146905	2,025058247	2,01653117	2,138982856
<i>Max</i>	1,272833959	1,919089143	2,089594994	2,094471601	2,149578127
<i>Tctn1</i>	1,306286808	1,831719713	2,080830975	1,954891	2,152234945
<i>Ccdc64</i>	1,283531083	1,871523025	2,169235458	1,987092952	2,103190886
<i>Sash3</i>	1,321322959	2,026590499	2,157186671	1,965557498	2,112700133
<i>2310015A10Rik</i>	1,336921407	2,01327844	2,169968263	1,98798587	2,194633496
<i>Spred2</i>	1,366608902	2,004633791	2,06543582	2,00162565	2,153027878
<i>Tex2</i>	1,338244887	1,972089828	2,017382643	1,959967733	2,041828954
<i>Mypop</i>	1,216843133	2,032153979	1,991230548	2,015710966	2,118725916
<i>Itgal</i>	1,341227045	1,953853944	2,062237254	1,796514406	1,983144517
<i>Coq10a</i>	1,265037055	1,997743439	2,034757967	1,846341918	2,008488045
<i>Ikzf4</i>	1,327028736	2,016159366	2,064324994	1,692381354	2,073059451
<i>Ggta1</i>	1,404382069	1,976781979	1,989988217	1,806266639	2,028732574
<i>Srrt</i>	1,447714533	1,979485885	1,929463115	1,787254199	2,149969107
<i>Acap1</i>	1,185126056	1,686397862	2,068699582	1,844761373	2,108659282
<i>Fem1c</i>	1,187844765	1,680862414	2,089770749	1,737512452	2,043793003
<i>Sp100</i>	1,206195506	1,808231219	2,011180343	1,793494384	1,968600162
<i>Mbnl2</i>	1,238728256	1,823985335	2,022647473	1,774761973	2,067297724
<i>Git2</i>	1,238933729	1,742293881	1,893089412	1,76728498	2,040514462
<i>Mark2</i>	1,371005523	1,731271071	1,927816199	1,777683716	2,071552536
<i>Naca</i>	1,283037751	1,7838586	2,024464339	1,685029139	2,133204173
<i>Dtx2</i>	1,4122948	1,805600679	2,106979555	1,745011348	1,978349545
<i>Leng9</i>	1,279890687	1,709818879	2,146799987	1,775118274	1,932595887
<i>Ppia</i>	1,073152574	1,916578738	2,02258024	1,769231908	1,937289015
<i>Ywhah</i>	1,081773822	1,791376174	2,13667329	1,77516433	1,924317723
<i>Tesc</i>	1,113644538	1,895263713	2,038200098	1,948232311	1,958646326
<i>Gm20324</i>	1,156148018	1,900574387	2,073487327	1,906168329	1,839183924
<i>Plekhf2</i>	1,442065617	2,141140875	1,992884552	2,110887284	2,206306326
<i>Zfp260</i>	1,477347168	2,047463607	2,099034212	2,138392736	2,146012843
<i>Hivep2</i>	1,430361829	2,201911772	2,115758531	2,021782989	2,079629551
<i>Gm15401</i>	1,544456773	2,248420344	2,058237545	1,966847218	2,116984036
<i>Fmnl3</i>	1,364406632	2,153139596	2,129714426	2,093542307	2,051375194
<i>Lmbr1l</i>	1,362913167	2,066733208	2,155996163	2,081202521	2,041224133
<i>Tgif2</i>	1,277155059	2,210692453	2,13186522	2,127404314	1,989654208
<i>Klhl25</i>	1,246992474	2,245519091	2,129851025	2,101952951	2,324221279
<i>Cd274</i>	1,169021491	2,279816719	2,212068758	1,966071318	2,31923118
<i>Rassf5</i>	1,422058481	2,226604011	2,315747128	2,09439589	2,208503515

<i>Gm12250</i>	1,361944327	2,138496244	2,294354593	2,045201455	2,337730142
<i>Gabarap</i>	1,556126586	2,022857874	1,865016024	1,672939293	2,245338796
<i>Gm5083</i>	1,429871401	2,022889518	1,642758446	1,728994045	2,110276967
<i>Ppan</i>	1,217603222	2,033928909	1,893230528	1,643772681	2,229137556
<i>Rnf208</i>	1,416136374	1,977738296	1,600223955	1,880584486	2,521995458
<i>1700016K19Rik</i>	1,320291352	1,995032129	1,855314936	1,727554649	2,55252972
<i>Plk3</i>	1,275821308	2,086000586	1,569855608	1,980691367	2,132944949
<i>Zbtb25</i>	1,695021008	1,93965932	2,052417233	1,72926743	2,072743897
<i>2510012J08Rik</i>	1,7008773	1,925767745	2,046789929	1,831422371	2,100755004
<i>Dzip1</i>	1,562036721	2,036970218	2,025491995	1,793987476	2,090207039
<i>Khdrbs1</i>	1,589435587	1,959764899	2,092685069	1,821253621	2,039916288
<i>Kcnp2</i>	1,551619285	1,861561959	2,071608983	1,845530354	2,027067615
<i>A630001G21Rik</i>	1,532368284	1,8631615	2,142552337	1,746355065	2,098561172
<i>Obfc1</i>	1,862135723	1,872503772	2,020193259	1,762724039	2,051258325
<i>Arid3b</i>	1,808296199	1,825231389	2,001546035	1,831403629	2,04867669
<i>Fkbp5</i>	1,825567133	1,957011148	2,061163863	1,841189913	2,099646276
<i>Hipk1</i>	1,868256228	1,928580006	1,994360659	1,874999325	2,083013207
<i>Kctd17</i>	1,786188717	1,917136567	2,168553704	1,8037577	2,052777058
<i>Setd7</i>	1,842988665	1,87015911	2,138463356	1,797781971	2,176331748
<i>Nr1d1</i>	1,822226996	1,761277817	2,084062906	1,664954001	2,285213804
<i>Mical1</i>	1,883392429	1,730448485	1,990971863	1,720636113	2,355892931
<i>Mxra8</i>	1,639363424	1,753707539	1,917363301	1,822985332	2,40227263
<i>Rltpr</i>	1,61120737	1,751534667	1,977255291	1,815862903	2,340710513
<i>Smarcd2</i>	1,869706597	1,814976129	1,824795661	1,851916697	2,221854513
<i>Evi2a</i>	1,849931366	1,834607576	1,938726154	1,913649003	2,306693655
<i>Gm996</i>	1,44224654	1,760920817	2,046558147	1,970291313	2,142044301
<i>Dnajc7</i>	1,495490922	1,824414086	2,0040488	1,914570039	2,169279956
<i>Prr13</i>	1,457398118	1,707915041	1,991420681	1,926420575	2,239234757
<i>Chd4</i>	1,420609383	1,731590649	1,878937825	1,864326094	2,138324442
<i>Itpr3</i>	1,424489471	1,710069895	1,866462566	1,877583967	2,172970197
<i>Pacs2</i>	1,595872721	1,716364201	2,012223864	1,790399157	2,110082954
<i>Iffo1</i>	1,602690138	1,732305454	1,899793278	1,838090369	2,064221109
<i>Os9</i>	1,510254206	1,758929974	1,894385718	1,707557604	2,120851654
<i>Derl1</i>	1,618119276	1,873330509	2,168509352	1,951767395	2,216291684
<i>Erf</i>	1,608209319	1,78437741	2,104052539	1,919333161	2,189905235
<i>Pik3r5</i>	1,658532208	1,8094372	1,966016696	1,99051116	2,242341828
<i>Tspan13</i>	1,445709784	1,916795216	2,017196446	1,922804947	2,118372598
<i>Sigirr</i>	1,487608834	1,910246889	1,962450351	2,000323614	2,150964682
<i>Coro1c</i>	1,479576008	1,913852873	2,069062999	2,064856096	2,197722354
<i>Traf3ip3</i>	1,495552534	1,874304671	2,011644424	2,09024191	2,139126756
<i>Gng3</i>	1,741900332	1,608602743	2,428607843	2,060738175	2,240681156
<i>Spn</i>	1,556092285	1,612602223	2,273987336	2,225129678	2,223703214
<i>Klf16</i>	1,889052307	1,710764627	2,230852652	1,960542845	2,194070037
<i>Plekhhg6</i>	1,690392011	1,625075414	2,19624385	1,872524148	2,088885237
<i>Kiss1r</i>	1,558081881	1,622036661	2,35956268	2,125852803	2,011479352
<i>Aup1</i>	1,520319057	1,742797429	2,473405268	1,9812136	2,05849322
<i>Wbp1</i>	1,447798126	1,837728864	2,373652977	2,100115808	2,200422685
<i>Lrch4</i>	1,401306051	1,832693017	2,249514904	2,08629544	2,138506156
<i>Rab11fip1</i>	1,289635641	1,974862373	2,229230939	1,791882684	2,283961972
<i>Anp32b</i>	1,18561646	1,882186217	2,157125844	1,834781394	2,244941697
<i>Gtpbp2</i>	1,238950168	1,798036718	2,164760416	1,555318479	2,363911928

<i>Gm10390</i>	1,576504183	1,665351356	2,298281643	1,602527224	2,294310272
<i>Bri3bp</i>	1,644399544	1,693255483	2,153159971	1,680273853	2,183097744
<i>Klhdc5</i>	1,474751623	1,66826755	2,086046886	1,72600447	2,185130479
<i>Calhm2</i>	1,551265494	1,756083275	2,08495386	1,670824552	2,153703735
<i>Dennd1c</i>	1,438281663	1,688935984	2,174811674	1,642516568	2,098697241
<i>Sgpp1</i>	1,387804478	1,879600845	2,021063987	2,005249735	2,258376926
<i>Lrrc33</i>	1,304943643	1,920447407	2,004385651	1,905490388	2,310443767
<i>Rnaset2b</i>	1,449446566	1,962587631	2,015221295	1,81792695	2,308301454
<i>Rnaset2a</i>	1,449461979	1,962607531	2,013851096	1,826242488	2,308323365
<i>Znrf2</i>	1,271496943	1,857993075	2,087078441	2,009467256	2,402233447
<i>Clic1</i>	1,361992274	1,922363447	2,175288889	1,931521919	2,489229025
<i>Slc38a1</i>	1,382157971	1,69529383	2,046214091	1,952691465	2,416183667
<i>Actn1</i>	1,466684411	1,675280815	2,074006599	1,988539815	2,431235019
<i>Arhgdia</i>	1,546958198	1,785115191	1,964772198	1,982862269	2,44776847
<i>Fam83f</i>	1,68289062	1,972232729	2,20774423	1,844584342	2,210108735
<i>Cend1</i>	1,664214908	1,907955808	2,058913527	1,816645934	2,241550238
<i>Ehd3</i>	1,793233338	2,048291845	2,07879193	1,767379273	2,279108143
<i>Wdr6</i>	1,817374793	1,904351271	2,297291845	1,789482369	2,239188267
<i>Hn1</i>	1,710768239	1,865074857	2,300301287	1,765974849	2,305835881
<i>Mex3a</i>	1,767348709	2,102015256	2,2885658	1,744436017	2,200035531
<i>Kcnk7</i>	1,759630573	2,142331904	2,359888763	1,803851508	2,21747645
<i>Fyb</i>	1,50682274	2,066290136	2,206098079	1,939324334	2,209533687
<i>Foxo3</i>	1,426705478	1,952427993	2,201347682	1,875447325	2,225800817
<i>Lpar2</i>	1,495537094	2,001025195	2,25209904	1,746599013	2,127467512
<i>C030046I01Rik</i>	1,555575654	1,877058527	2,208253419	1,787567664	2,406595158
<i>Jmjd6</i>	1,581699579	1,844628448	2,192244768	1,871566187	2,364788549
<i>Ppp2cb</i>	1,444101191	1,84059668	2,187532492	1,802298582	2,36063905
<i>Hspb6</i>	1,827977491	2,017122531	2,106404534	1,483095312	2,245069671
<i>AW112010</i>	1,524453995	1,969770483	2,041075748	1,427107734	2,396064197
<i>Traf4</i>	1,680199562	1,862218934	2,446679355	1,782953619	2,434808601
<i>Mast3</i>	1,658686733	1,876166444	2,406375235	1,720529296	2,409269106
<i>Cenpb</i>	1,72051261	1,842673155	2,311396183	1,64119731	2,61367476
<i>Mnt</i>	1,468776189	1,658441681	2,374070364	1,571914448	2,548712232
<i>Rab27a</i>	1,61760886	1,931455372	1,961616393	2,084145072	2,140739857
<i>4933426D04Rik</i>	1,727547903	1,837842757	1,919585834	2,163019857	2,061848555
<i>Il3ra</i>	1,783119796	1,725208022	1,69418398	1,975296153	2,10700803
<i>Ckb</i>	1,809715078	1,773827749	1,789953353	2,333122656	1,957935165
<i>Fkbpl</i>	1,690882022	2,000912598	1,630354043	2,197888804	2,08995651
<i>Sssca1</i>	1,658394105	1,660529614	1,854511796	2,161873586	2,229167877
<i>Rassf3</i>	1,612195747	1,771404975	1,774536329	2,276028071	2,232033029
<i>Fam108a</i>	1,568177019	1,669364007	1,862522075	2,13221658	2,440638081
<i>Bhlha15</i>	1,563350742	1,932653006	1,791470807	2,31395765	2,352891041
<i>Tmub1</i>	1,337082662	1,373522848	1,910342338	2,506525096	1,947950279
<i>Endog</i>	1,414924803	1,523362877	1,599292479	2,562165715	1,770734672
<i>Rps8</i>	1,54452783	1,736961569	2,019367584	2,599123588	2,635686399
<i>2900092E17Rik</i>	1,611104644	1,507956604	1,864792641	2,710001405	2,392327102
<i>1700066B17Rik</i>	1,322570319	1,623137648	2,048193787	2,067860865	2,125947356
<i>Amigo3</i>	1,330304525	1,629494852	1,882093648	2,075726927	2,1379343
<i>Klhl35</i>	1,368876675	1,796452646	1,906918973	2,151533227	2,218218927
<i>Ttyh3</i>	1,375099741	1,771486868	1,837854848	2,14373563	2,147865464
<i>Arhgef4</i>	1,38490571	1,865872741	1,988504051	2,215715863	2,244863113

<i>Rps6ka1</i>	1,370181001	1,799035959	2,050814612	2,15086015	2,335132087
<i>Dapk3</i>	1,422362694	1,707487929	2,045375489	2,176814202	2,231759507
<i>Prkag1</i>	1,155521724	1,808686698	1,88222154	2,181259018	2,26893797
<i>Sphk2</i>	1,115579341	1,731151149	1,872730824	2,081213107	2,400146862
<i>Kctd10</i>	1,213138357	1,662413703	1,88978416	2,236106802	2,332144173
<i>Rad9</i>	1,211500023	1,668635798	1,990186031	2,242181812	2,248071468
<i>Rabggtb</i>	1,178636416	1,591564765	1,873973756	2,201331761	2,211935845
<i>Tuba1a</i>	1,161322469	1,787020024	1,854151717	1,84009273	2,275636078
<i>Gga1</i>	1,2305244	1,785028372	1,948532896	1,882338195	2,390987756
<i>Pea15a</i>	1,070805236	1,781619236	1,911715243	1,846491776	2,423422371
<i>Yod1</i>	1,2038363	1,716191112	1,898829158	1,882539484	2,241179215
<i>Snx32</i>	1,219744582	1,70208659	1,862250555	1,895221816	2,257532747
<i>Tmpo</i>	1,237584185	1,660073398	1,891316166	1,955996445	2,176203474
<i>Fut11</i>	1,287895077	1,807279532	1,840569849	1,990505459	2,198766261
<i>Rab21</i>	0,968553737	1,665096456	1,940018885	1,9543115	2,235170637
<i>Tapbp</i>	1,055720155	1,701044197	1,911726122	1,928559308	2,241699453
<i>Csnk1g2</i>	1,010735802	1,622377227	1,908691759	1,860183187	2,242978069
<i>Ss18</i>	1,0025823	1,635174203	1,93799299	1,854673218	2,257159136
<i>Rbm14</i>	1,047923846	1,625333477	2,007571873	1,995090761	2,258695484
<i>Wipf2</i>	1,072614079	1,640894367	1,999628027	1,839443262	2,273631571
<i>Mmd</i>	1,060993773	1,733419407	2,013707312	1,79125903	2,224446362
<i>Mcart1</i>	1,199253955	1,641826529	1,965225479	1,86108358	2,131673733
<i>Tmppe</i>	1,116058461	1,651057884	1,947686151	1,893605674	2,179033424
<i>D4Ertd22e</i>	1,178792884	1,597097905	2,024596222	1,964856522	2,165066976
<i>Cdk4</i>	1,330193467	1,808610672	2,092014763	1,979310333	2,735639044
<i>Gale</i>	1,342506675	1,801105845	1,887853667	2,122466623	2,67814505
<i>Phf23</i>	1,363054187	1,604823735	1,891940569	1,856615819	2,631493541
<i>Prr7</i>	1,185462462	1,609307882	1,889468603	2,074803877	2,511164263
<i>Ppm1m</i>	1,232659654	1,691281672	1,905490826	2,137451405	2,5744440078
<i>Adcy7</i>	1,283294351	1,714124748	1,986763068	2,037060424	2,518864211
<i>Rps10</i>	1,235936657	1,602517077	2,045024201	2,169225874	2,708872136
<i>Dcaf15</i>	1,380521954	1,587461701	2,152233633	1,876739906	2,428620065
<i>4632428N05Rik</i>	1,351881295	1,524496382	2,217406606	1,92043855	2,53298287
<i>Plekho1</i>	1,195935554	1,625296326	2,221958979	1,841930542	2,612672769
<i>Lsm4</i>	1,377803064	1,560753574	2,404933797	1,851302267	2,430456928
<i>Dynll1</i>	1,324981079	1,585254722	2,430425335	1,874019798	2,418652613
<i>Rps17</i>	1,437694305	1,24164765	2,149611465	2,111492677	2,543832544
<i>Irgc1</i>	0,738640166	1,56167136	1,645431861	2,203023517	2,41158886
<i>Snx20</i>	0,856654404	1,782066352	1,68394636	2,094345646	2,471185353
<i>Atf4</i>	0,977169204	1,84321441	1,607975536	2,347167953	2,336010956
<i>1500002O20Rik</i>	1,130963428	1,445111027	1,608884711	2,272639336	2,392562393
<i>Gm10094</i>	1,133084957	1,450388513	1,627496799	2,229441834	2,362040923
<i>Rgl2</i>	1,16596795	1,611397705	1,589958277	2,129920507	2,215211762
<i>Ddx39</i>	1,086919034	1,536518619	1,75670947	2,235061319	2,617353008
<i>Fut7</i>	1,150390739	1,467423874	1,791678922	2,525220733	2,407153594
<i>Sh3bp1</i>	1,039583725	1,921073872	2,120858543	2,183104091	2,386179519
<i>Fam53b</i>	1,046314759	1,947590125	2,118150821	2,121908407	2,280244852
<i>Calm2</i>	1,060493473	1,947814476	2,182762082	2,29375613	2,33015093
<i>Brd2</i>	1,036722422	1,955633522	2,144663424	2,288638387	2,340413621
<i>Foxp1</i>	0,988997518	2,016388784	2,154808985	2,249053749	2,375654384
<i>Sec11a</i>	1,07048304	2,124322969	2,061759701	2,167298368	2,338088544

<i>Fam49b</i>	0,979715729	2,001952033	2,144936096	2,067269689	2,416889923
<i>Rhoa</i>	0,876643961	1,92913623	2,146321383	2,092761327	2,339701346
<i>Srsf7</i>	0,976687424	1,992294969	2,19097863	2,032851688	2,29664428
<i>Sbf1</i>	1,01636845	1,992952658	2,240995725	2,080188433	2,297046186
<i>Map3k11</i>	1,150609559	2,006483585	2,039339547	2,012815332	2,424590298
<i>Emb</i>	1,166025601	1,922164683	2,065301202	2,125621923	2,371481094
<i>Atf7ip</i>	1,245774856	2,005336026	2,22906409	2,062611738	2,357094487
<i>Anapc16</i>	1,240952208	1,96188939	2,1977029	2,062780457	2,376194177
<i>Prrc2a</i>	1,264079654	2,032737427	2,198078913	2,062449454	2,440680565
<i>Wipf1</i>	1,233321773	2,054698748	2,156200596	1,971121555	2,306835875
<i>Bcor</i>	1,204458192	2,008209493	2,151781412	2,042903476	2,312103704
<i>Vav1</i>	1,158183567	1,995027765	2,198306524	1,977339308	2,248653461
<i>Gmfb</i>	1,115577774	2,037077824	2,262716801	2,107074782	2,459157978
<i>Bcl3</i>	1,087403232	2,116807317	2,367642671	2,096338883	2,47260724
<i>Dyrk1a</i>	1,212029852	2,079621837	2,34055381	2,065107925	2,412329014
<i>Arhgef2</i>	1,115144012	2,138551033	2,398918533	2,043062363	2,603078771
<i>Arl6ip5</i>	1,142904678	1,859842264	2,339839707	1,994687394	2,596382882
<i>Arpc1b</i>	1,107385672	1,89988514	2,232801104	2,107497254	2,660037353
<i>Hnrnpk</i>	1,0152007	1,817950103	2,279933059	2,086870777	2,524887632
<i>Sema4a</i>	1,057565897	1,809965207	2,205536954	1,857318356	2,472136006
<i>Mtap7d1</i>	1,109148756	1,762779	2,300088644	1,860251816	2,445587292
<i>Zfp574</i>	1,127851722	1,731651541	2,137670095	1,819603683	2,430012732
<i>Slc44a2</i>	1,052118086	1,759208776	2,263688796	1,995444032	2,373908589
<i>Bcl10</i>	0,817221109	1,82554822	2,37757009	1,8738724	2,495230128
<i>2610524H06Rik</i>	1,282911473	1,575142918	2,353223583	2,25904301	2,440403177
<i>Tdgf1</i>	0,978794412	1,639272344	2,518068236	2,25465321	2,282375778
<i>Oaz1-ps</i>	1,010938719	1,550912595	2,437510364	2,012446353	2,623186856
<i>Oaz1</i>	1,082733543	1,564432642	2,438598475	2,072578889	2,640232596
<i>Atp1b3</i>	1,113737228	1,932634832	2,288342758	2,379285219	2,683026377
<i>Stat1</i>	1,098592277	1,978278667	2,384938398	2,413090258	2,672767238
<i>Atn1</i>	1,081829217	2,031184234	2,407413571	2,335528849	2,56605788
<i>H3f3a</i>	1,027635413	2,083412566	2,348759943	2,204693585	2,758009629
<i>Lysmd1</i>	1,082223114	2,098716442	2,329605982	2,12436275	2,761522806
<i>Prkar1a</i>	1,220549326	2,166331671	2,486650325	2,356441203	2,659223662
<i>Mllt6</i>	1,208485003	2,273605783	2,433406572	2,269157103	2,710915461
<i>Rasal3</i>	1,131819545	2,242044833	2,275651627	2,325696235	2,674972338
<i>Ctnnb1</i>	1,14425083	2,116751826	2,446401122	2,279941431	2,458698681
<i>Mbnl1</i>	1,166602531	2,175656211	2,458908414	2,304676943	2,537012516
<i>Adnp</i>	1,135607201	2,174818246	2,552642964	2,381490085	2,54469969
<i>Srsf5</i>	1,028327436	2,052741059	2,118210033	2,272672799	2,867914316
<i>Cdipt</i>	0,974987948	2,214720891	2,047308315	2,2906231	2,69123283
<i>Surf1</i>	1,183901431	1,953326169	2,430987784	2,353845029	2,91317392
<i>Rps26</i>	0,925151154	1,847904993	2,427340463	2,276723475	2,876031861
<i>1110008F13Rik</i>	1,257987265	1,927743585	2,486276055	2,188425221	2,758687911
<i>Rpl7a</i>	1,219830464	1,705563751	2,408035122	2,196718589	2,750825086
<i>Itgb7</i>	1,038212091	1,677915447	2,321399037	2,399961817	2,700579348
<i>Rasgrp2</i>	1,179583663	1,742046684	2,321001115	2,540777143	2,82184178
<i>Tagln2</i>	1,312523202	1,516523474	2,418532295	2,223917851	2,86533685
<i>H2-Q5</i>	1,115187198	1,485383017	2,299905611	2,22093611	3,676591747
<i>Cuta</i>	1,320296659	1,839669667	2,176821942	1,909676524	3,285515401
<i>Slc26a10</i>	0,863136994	1,831458254	2,29396973	1,942205351	3,033278326

<i>Ptgds</i>	1,748217133	1,634959384	2,221445948	2,022536129	2,974714511
<i>H2affj</i>	2,115867716	1,626703842	2,579365094	2,015477444	2,95574273
<i>C130039O16Rik</i>	1,537146561	1,904623455	2,537958947	2,227161638	3,041248934
<i>Fibp</i>	1,484264125	1,831518945	2,696917924	2,026163393	3,254791667
<i>Rps14</i>	1,627116193	1,916295426	2,408581877	1,981049647	2,956371897
<i>Mocs3</i>	1,611995448	1,2540303	2,851393591	2,037308202	2,702696719
<i>Runx3</i>	1,480681186	1,780406876	3,152912047	1,828986932	3,261900746
<i>Cldnd2</i>	1,133358455	1,707880479	2,878822963	1,54372384	3,378942705
<i>Dnajb12</i>	2,037724517	2,067592321	2,395466273	1,989538776	2,52270638
<i>Zfp957</i>	1,914977395	2,046961656	2,628594762	1,907010159	2,4956406
<i>Atp1b1</i>	1,808248277	2,005680931	2,40341372	2,080200869	2,431686496
<i>Sh3gl1</i>	1,791828119	2,058477818	2,414122243	2,084017539	2,477282421
<i>Abtb2</i>	1,857663515	2,208510818	2,500245192	2,125784176	2,364565253
<i>Egfl8</i>	1,954856878	2,429212034	2,450470348	1,944711046	2,23220977
<i>Zscan2</i>	1,941945415	2,465394156	2,437449223	1,953642487	2,382194849
<i>Lsm14b</i>	1,9943609	2,290854662	2,337097194	1,843362246	2,291973721
<i>Tmem185b</i>	2,185150839	2,005935992	2,447311606	1,75394311	2,569600933
<i>Ydjc</i>	2,122623127	2,389836672	2,186665054	1,605703064	2,499552732
<i>Fli1</i>	1,805007316	2,028213694	2,250216396	1,977055331	2,209109264
<i>Cnot2</i>	1,753365604	2,075950384	2,24464005	1,933908329	2,183754516
<i>Sox15</i>	1,867230925	2,024940222	2,211822679	2,033615822	2,243064274
<i>Msh6</i>	1,81122461	2,016273663	2,343807399	2,019218575	2,227614227
<i>Cd164</i>	1,822496653	1,997899525	2,35763025	2,126185242	2,270311879
<i>Tmie</i>	1,769305218	2,060273922	2,407848728	1,990262442	2,303105815
<i>Uba7</i>	1,830221999	1,925689016	2,223279601	2,09043715	2,333919066
<i>Timp2</i>	1,762113666	1,964758651	2,288831526	2,009462742	2,401801803
<i>Sipa1</i>	1,813987142	2,113285664	2,256855176	2,100599297	2,39670819
<i>Rcsd1</i>	1,743169214	2,098154834	2,171530641	2,174558866	2,431422266
<i>Sell</i>	1,834694345	1,973988117	2,148107226	1,994149543	2,42348661
<i>Frat1</i>	1,83012811	1,959292309	2,107368961	1,987086611	2,454167564
<i>Tnk1</i>	1,878599311	2,100130548	2,192643435	1,940644461	2,37148834
<i>Ptp4a3</i>	1,995623412	1,988034223	2,032620786	1,967796126	2,410774787
<i>Gm16157</i>	2,033681738	2,058721353	2,114421424	1,948871803	2,395669481
<i>Jakmip1</i>	1,832814649	1,978053396	2,008974547	1,956327507	2,288983571
<i>Sp2</i>	1,918716703	1,899949612	2,044646375	1,941074324	2,299167651
<i>Ppm1h</i>	1,982667763	1,906393303	2,174001456	1,916454355	2,338167911
<i>Tpcn1</i>	1,939465744	1,93458672	2,205170839	1,974910011	2,378155792
<i>Chst12</i>	1,970742516	1,846529756	2,236436815	1,947061635	2,299919032
<i>Sema4b</i>	1,782873295	1,90131529	2,25260692	1,879637476	2,347279205
<i>Ptov1</i>	1,883469754	1,936145438	2,301586257	1,900412646	2,301946077
<i>Pitpnm1</i>	2,119884103	2,109161561	2,083675921	2,045040184	2,365261981
<i>Ctsd</i>	2,12554452	2,050666251	2,210365694	1,993265752	2,39617349
<i>Irs3</i>	2,072695325	2,21516481	2,194730659	2,027558221	2,312549877
<i>Tap2</i>	2,243464726	2,145722177	2,120150438	2,033149259	2,314601479
<i>Rnf157</i>	2,267346813	2,111983941	2,231896656	2,086107052	2,288413659
<i>Scamp4</i>	2,256482903	2,073309399	2,158518251	2,192564281	2,358825433
<i>Nck2</i>	2,198735292	2,174144852	2,214439935	1,986126235	2,139566285
<i>Sidt2</i>	2,163979949	2,121903136	2,177675556	2,136986836	2,113876702
<i>Amz2</i>	2,052924625	2,176954473	2,157213738	2,182183637	2,288994439
<i>Commd3</i>	2,030781453	2,146319919	2,207935178	2,256364747	2,162355141
<i>Pop5</i>	2,026067942	2,16136793	2,372853283	2,324605204	2,337960713

<i>Park7</i>	2,079775787	2,180713587	2,34578421	2,216227873	2,350340203
<i>Cd101</i>	1,758810156	2,079677151	2,059191491	2,027072612	2,052614587
<i>Rpa1</i>	1,827886908	2,001557149	2,022085434	1,991814703	2,066159446
<i>Tsc22d4</i>	1,710471146	1,961481584	2,079055257	1,973224025	2,072367726
<i>Ccrn4l</i>	1,717865955	1,951353936	2,131527324	1,951436136	2,145319685
<i>Lcmt2</i>	1,984411433	1,893254732	2,145618837	2,115420628	2,138474835
<i>Ubash3a</i>	1,885568571	2,296239209	2,076193548	2,042996994	2,112398026
<i>Smad3</i>	1,888008142	2,153072739	2,087297784	1,999458421	2,094278144
<i>Zfp710</i>	1,871066457	2,18680886	2,078500233	2,201678167	2,14943206
<i>Dctn6</i>	1,681229111	2,204269023	2,031182246	2,101262242	2,077939853
<i>Mospd3</i>	1,736754528	2,160954653	1,952000061	2,172731217	2,124728335
<i>Snn</i>	1,765117069	2,189319303	2,192860579	2,115499644	1,915341592
<i>Sec22c</i>	1,880851015	2,125215518	2,221494249	2,131087524	1,99084667
<i>Hoxa4</i>	1,845169203	2,127477785	2,430604582	2,098235029	1,901019416
<i>Abcb9</i>	2,088846621	2,075974063	2,104597131	1,975931572	2,167260345
<i>Patz1</i>	2,164325653	2,03211752	2,116062065	1,96141228	2,10711274
<i>Stambpl1</i>	2,058147708	2,038884138	2,077261395	1,922563152	2,063651059
<i>H2-T10</i>	2,005749796	2,065778152	1,895371095	1,94536924	2,093798173
<i>Tbc1d2b</i>	1,936202871	2,11704754	2,199350238	1,892590942	2,185067811
<i>Rgs14</i>	1,997410663	2,118168969	2,215733216	1,926209216	2,147100155
<i>Cmtm7</i>	2,012457743	2,039830598	2,15926298	1,824061237	2,228898326
<i>Bloc1s3</i>	1,972115232	1,94437429	2,087717621	1,877194543	2,150785825
<i>Aff1</i>	1,927309622	1,972756743	2,165627798	1,88277228	2,099104933
<i>U2af1</i>	1,948899648	2,142664567	2,194518517	1,946068022	2,024569188
<i>Scarb2</i>	1,934822904	2,080009022	2,159385564	1,899735268	2,055598198
<i>Mafg</i>	1,932739151	2,196725433	2,087831711	1,868544626	1,970718949
<i>Gngt2</i>	2,009050918	2,101261574	2,232500855	1,817984365	1,882765343
<i>Psmc5</i>	1,904104124	2,043999113	2,056769133	1,634940435	2,072729823
<i>Unc119b</i>	2,084945943	2,066696141	2,118400344	1,623093604	2,132404851
<i>Tmem221</i>	2,117011785	2,16159918	1,925411797	1,625535145	2,058635502
<i>Ppp1r3b</i>	2,240045208	2,411553456	2,329450613	1,815771882	2,028789652
<i>Slamf1</i>	2,279633366	2,200881912	2,330974362	1,888603913	1,933732966
<i>Trib2</i>	2,080797415	2,302552901	2,312855633	2,005276731	2,003002748
<i>Gmfg</i>	2,203177674	2,284729839	2,253279716	2,012222515	2,247628607
<i>Poli</i>	2,191223185	2,244140182	2,323158428	2,118214047	2,245322237
<i>Csrnp1</i>	2,246056441	2,322223143	2,398397481	2,039541504	2,217638965
<i>Traf1</i>	2,173862074	2,167586629	2,349657538	1,975876755	2,264909354
<i>Pitpnm2</i>	2,400783432	2,190087765	2,309288494	1,983508907	2,214237118
<i>Ramp1</i>	2,306690781	2,109564	2,157910237	1,770219965	2,056378339
<i>H6pd</i>	2,236111107	2,043045244	2,218796839	1,789067136	2,289794122
<i>Lrrc1</i>	2,05879802	2,050228024	2,253688079	1,956067946	2,045060999
<i>2810408A11Rik</i>	2,114605345	2,005970914	2,218312881	1,978106815	2,155545489
<i>Gtf2ird1</i>	2,085583626	2,00337833	2,309134985	1,858226475	2,176895742
<i>Yipf3</i>	2,185690879	1,883370185	2,272193378	2,025497108	2,146538121
<i>Pdgfb</i>	2,108275516	1,771886297	1,993748864	1,700674092	2,192669881
<i>Scn2b</i>	2,153376444	1,690500742	2,107321946	1,751529416	2,203521394
<i>Lrrc50</i>	2,291415545	1,864178779	2,044465725	1,793993764	2,182676218
<i>Gsk3a</i>	2,572835761	1,941454485	2,115246677	1,826055074	2,154667638
<i>Hyal2</i>	2,471809864	1,822740856	2,082265364	1,829317008	2,240316628
<i>Chchd5</i>	2,404955282	1,797786061	2,076779885	1,747882299	1,971262166
<i>Gpr152</i>	2,505623394	1,782663007	2,117611554	1,792377942	2,043404253

<i>Phlda1</i>	2,411944795	1,894794921	2,144652531	1,841061463	2,042032289
<i>Wbscr27</i>	2,345464822	1,749045021	2,104133607	2,197093492	2,213967358
<i>Trim59</i>	2,300983118	1,81278297	2,141582089	2,165196725	2,506941959
<i>Nudt16</i>	2,299473827	1,735549899	2,421257881	2,138195508	2,274803598
<i>Sla2</i>	2,453129033	2,194746421	2,514349939	1,932232153	2,525234034
<i>Adrb2</i>	2,506076438	2,226373179	2,660510031	1,946025505	2,502542749
<i>Fam65a</i>	2,291403883	2,185258031	2,590825937	1,840067593	2,308599052
<i>Psap</i>	2,494207036	2,147343016	2,374817017	1,814537551	2,432302843
<i>Slc16a5</i>	2,605653138	2,190810236	2,410284606	1,937746929	2,099685707
<i>Thy1</i>	2,531986509	2,00834984	2,441016488	1,892412853	2,178785267
<i>Rnf26</i>	2,453380508	2,181198202	2,733180385	1,876087812	1,905190729
<i>B330016D10Rik</i>	2,242609648	1,944951269	2,65779782	1,748801551	2,086733825
<i>Tob2</i>	2,281777889	2,24860955	2,386655009	1,971307185	2,56013505
<i>Ppp1r9b</i>	2,362125977	2,185971072	2,322514593	2,057192176	2,639033323
<i>Arpc3</i>	2,37280902	2,410782182	2,400498416	2,018730673	2,435420486
<i>Tmem104</i>	2,43309116	2,308069034	2,282240706	2,141448609	2,238382461
<i>Gm11529</i>	2,402412601	2,382004722	2,360899067	2,18569617	2,307577673
<i>1500031L02Rik</i>	2,360017949	2,322945666	2,208447233	2,267349033	2,394860874
<i>Chrac1</i>	2,181617253	2,132373205	2,306380569	2,177165719	2,448301779
<i>Ankrd13a</i>	2,172194567	2,221309563	2,192735176	2,130478182	2,45893156
<i>Gm7367</i>	2,24533006	2,228245085	2,335624602	2,17076159	2,553234462
<i>Fam100b</i>	2,2494362	2,187500511	2,299362817	2,126626903	2,53715632
<i>Pecam1</i>	2,261496744	2,095981118	2,172764956	2,344170597	2,573959409
<i>D19Wsu162e</i>	1,966756384	2,406897323	2,485459227	2,236006957	2,345748317
<i>Lcp2</i>	1,920882225	2,366670176	2,512549124	2,216148074	2,417281524
<i>Abcg1</i>	2,014392932	2,370198256	2,504183096	2,186179494	2,447263863
<i>Ppp2r5c</i>	1,929616748	2,290770297	2,470228452	2,235455956	2,476875676
<i>Slc20a1</i>	1,955236002	2,300505922	2,318802283	2,154296437	2,386127291
<i>Tram1</i>	2,121000148	2,312360956	2,315946652	2,163052644	2,407171042
<i>B3gnt2</i>	2,15650401	2,268423253	2,394728185	2,100558823	2,458341738
<i>Art4</i>	2,106480198	2,394807015	2,426715153	2,059358017	2,365352984
<i>Fam169b</i>	2,0845035	2,209096909	2,45277361	2,163198046	2,546887363
<i>Ifi47</i>	2,027623264	2,15329378	2,522629906	2,27088399	2,438326108
<i>Hvcn1</i>	2,099252668	2,1896862	2,425101378	2,418135512	2,534475236
<i>Klhl9</i>	2,016122678	2,053110083	2,49578458	2,20603717	2,879546317
<i>Ahdc1</i>	1,943619877	2,045144557	2,502785583	2,085912154	2,696402308
<i>Prrc2b</i>	2,056988663	2,305645467	2,648857065	2,203124391	2,697950064
<i>Galnt2</i>	2,175668144	2,229676413	2,612149134	2,237912248	2,621986949
<i>Tbxa2r</i>	2,416195459	1,967913394	2,765205467	2,091984254	2,647002356
<i>Smpd2</i>	2,443529284	1,960226225	2,567636863	2,190620279	2,529771518
<i>Fancf</i>	2,254047366	1,981276547	2,730572763	1,947726043	2,509205483
<i>Nfkbil1</i>	2,591088469	2,375211248	2,239257963	2,097335851	2,520797918
<i>Tmem191c</i>	2,611012427	2,39164718	2,159445035	2,038184855	2,441548434
<i>Ddx54</i>	2,592489104	2,293148031	2,310439859	2,192131025	2,440714191
<i>Fhl3</i>	2,735466925	2,246923867	2,198147092	2,043970824	2,371700059
<i>Trpt1</i>	2,528949515	1,97987797	2,046958363	2,029224028	2,465068801
<i>Cxcr5</i>	2,495141086	2,055849513	2,198434326	2,110313841	2,506602503
<i>Lymr7</i>	2,649060104	2,171665574	2,490494223	2,095656043	2,446886146
<i>4930465M20Rik</i>	2,534372357	2,217154306	2,443437713	2,284301464	2,586708083
<i>Hes6</i>	2,694762884	2,000479669	2,409365852	2,275970157	2,608655191
<i>Pelo</i>	2,543078342	2,385704578	2,175140285	2,608183768	2,327605674

<i>Odf3b</i>	2,666714706	2,218842238	2,008537195	2,406174418	2,361909679
<i>2410075B13Rik</i>	2,217658664	2,122790725	2,119729877	2,528785178	2,354405354
<i>Pdlim4</i>	2,249899423	2,114884365	2,111318088	2,382643859	2,24487787
<i>Csf2ra</i>	2,318167473	2,330226568	1,999235545	2,507759856	2,345841837
<i>Prelid1</i>	2,208855351	2,062725503	2,279430285	2,798568568	2,346046024
<i>Otud1</i>	2,251688339	2,125292942	2,453548403	2,90001515	2,302393161
<i>6230427J02Rik</i>	2,058196908	2,145856158	2,472907851	2,844856034	2,451237587
<i>Sephs2</i>	2,341876505	1,950961841	2,331827932	2,594040585	2,62903752
<i>4930542H20Rik</i>	1,993145792	1,969942872	2,547687701	2,405185118	2,34180805
<i>Eif1b</i>	1,903421872	2,060953163	2,729518783	2,507963252	2,383249504
<i>Crlf2</i>	2,115975453	1,753430052	1,88627024	2,014384234	2,457072067
<i>Icam4</i>	2,235218724	1,740579576	1,855078004	1,90864149	2,467925161
<i>Mesdc1</i>	2,016804899	1,50845162	1,854292289	1,947682436	2,40113126
<i>2310047M10Rik</i>	2,42244952	1,684623692	1,574874127	1,943813681	2,569195533
<i>Sco2</i>	1,748740731	1,969202907	1,665600776	2,189168683	2,807653636
<i>Gfer</i>	1,838553541	1,742993213	1,741609682	2,281173293	2,616635185
<i>Rom1</i>	1,975673646	1,611838643	1,865463243	2,383659846	3,49081829
<i>Podnl1</i>	2,129068446	1,687651383	2,093808768	1,950086021	2,609061569
<i>Cd97</i>	2,177064061	1,690319967	2,075346823	1,970540824	2,543874734
<i>Gramd3</i>	2,063217998	1,781044096	2,095308998	2,164668876	2,626170688
<i>Lypla2</i>	1,921812142	1,954799999	2,032957962	1,948206023	2,738971832
<i>Fam167b</i>	2,002060414	2,278138992	2,034727519	2,013493025	2,683120266
<i>Psmb10</i>	2,038943094	2,239995396	2,016599445	2,081311926	2,604614606
<i>Gm10190</i>	2,150336966	2,286515785	1,985073007	1,872554117	2,710166658
<i>Thtpa</i>	2,087847219	2,242522604	1,939675744	2,153464148	2,452889708
<i>Cxxc5</i>	2,477931566	2,094534691	2,495267731	1,788007891	2,810432915
<i>Al837181</i>	2,568802837	1,844644665	2,394235082	1,813218579	3,138533798
<i>Mlf2</i>	1,587956691	1,67903965	1,797103726	2,067342138	1,59181838
<i>Tmem223</i>	1,737530219	1,697150678	1,970299259	1,904336835	1,430990988
<i>Fitm1</i>	1,442296477	1,482201575	2,333232834	2,109467459	1,496820862
<i>Marcksl1</i>	1,942835233	1,810752233	2,377659259	1,83708573	1,709769719
<i>Gpt</i>	1,744207732	1,781608801	2,247680434	1,974504695	1,803475425
<i>Gapdh</i>	2,071108614	1,518198769	2,369623043	1,826350047	1,945750388
<i>Spsb2</i>	2,334458354	1,202451704	1,813864612	1,88397813	1,33431647
<i>H2-Ke6</i>	1,946648916	1,387733907	1,82579613	1,938094155	1,51850867
<i>8430419L09Rik</i>	1,651877572	1,973763137	1,905066103	1,721047248	1,653389579
<i>Fbxw8</i>	1,677847949	1,843598303	1,935334541	1,714579655	1,659663364
<i>Neu1</i>	1,686876733	1,892194609	1,737952121	1,772259697	1,668195887
<i>4930415F15Rik</i>	1,731855604	1,866723322	1,797623161	1,746689872	1,634911627
<i>A830007P12Rik</i>	1,752494324	1,898032148	1,782619538	1,857517442	1,655566319
<i>Tnfrsf10b</i>	1,62837166	1,687028178	1,859353068	1,726388936	1,739643447
<i>Cpm</i>	1,522070088	1,761132448	1,89247704	1,816686591	1,796986999
<i>Dnajc3</i>	1,654002068	1,677154693	1,838999209	1,577682142	1,798935359
<i>Heatr2</i>	1,674275624	1,692836218	1,835960384	1,578007771	1,789997353
<i>Tcf25</i>	1,664367016	1,767134037	1,816492276	1,660398937	1,869861012
<i>Mier1</i>	1,724245853	1,814168272	1,885907241	1,529581594	1,727003942
<i>Stat3</i>	1,830305124	1,776954709	1,791951493	1,744913855	1,793300441
<i>Arid1b</i>	1,766119081	1,807316464	1,787977115	1,758545559	1,762949412
<i>Rcbtb2</i>	1,839043563	1,861157748	1,838617451	1,68412737	1,828248041
<i>Enthd1</i>	1,806742308	1,69261389	1,844850587	1,693058972	1,886157021
<i>Soat1</i>	1,819867484	1,782670342	1,819978945	1,648375111	1,92649131

<i>Atp6v0a2</i>	1,810640026	1,808138313	1,982521647	1,557728683	1,847508177
<i>Cacnb1</i>	1,884956691	1,730870159	2,065795823	1,644290954	1,806489088
<i>Pycard</i>	1,715714517	1,804433343	2,096011784	1,730374802	1,740603961
<i>1700122O11Rik</i>	1,759051169	1,699339674	2,066393512	1,830557432	1,858982127
<i>BC051537</i>	1,664877071	1,630558913	1,999545482	1,780775751	1,949944341
<i>Tradd</i>	1,79984095	1,724920515	1,894521107	1,853861461	1,953559525
<i>Rab11fip4</i>	1,825064853	1,707314851	1,981773851	1,816671387	2,031274799
<i>Abhd2</i>	1,423859943	1,699380407	1,818781552	1,733232351	1,95142812
<i>Cyfp2</i>	1,395119636	1,747812354	1,858187725	1,760983415	1,974662306
<i>Rrp1</i>	1,394829172	1,756673836	1,776249322	1,705556012	2,050358044
<i>Mtmr12</i>	1,50591819	1,716230795	1,763026731	1,785710429	1,91013314
<i>Tbcel</i>	1,526029796	1,744682586	1,780748888	1,815370136	2,002268648
<i>Spata2l</i>	1,513075535	1,767812472	1,786043914	1,664246316	1,943800854
<i>4921511C10Rik</i>	1,518955141	1,745441317	1,771395166	1,595428167	1,875045734
<i>3110082I17Rik</i>	1,447980569	1,756633455	1,712049995	1,685199056	1,896399807
<i>Cisd2</i>	1,378757336	1,649144646	1,746382906	1,646946104	1,887764407
<i>Churc1</i>	1,387176152	1,903029818	1,818395306	1,819185324	1,849186307
<i>Mfhas1</i>	1,358996514	1,862614213	1,860958151	1,757527256	1,83993871
<i>1110014N23Rik</i>	1,417894747	1,871724342	1,720262715	1,817315969	1,906905627
<i>1700003F17Rik</i>	1,591780984	1,922209338	1,96362924	1,898345707	1,860909129
<i>Zbtb38</i>	1,531237658	1,959520845	1,909990143	1,812180125	1,923971488
<i>Foxn3</i>	1,61914993	1,938241163	1,84822199	1,877014374	1,787789465
<i>Ppard</i>	1,643251079	1,880067903	1,988527523	1,757907483	1,952517096
<i>Klf7</i>	1,646627433	1,907191139	1,926151798	1,701197551	1,887231914
<i>Trak1</i>	1,493744375	1,841559377	1,801984893	1,934063635	1,857418518
<i>Zmiz1</i>	1,602525411	1,824385682	1,839210529	1,916816229	1,962185587
<i>Rgmb</i>	1,457654095	1,844687721	1,936364198	1,872288566	2,003413927
<i>Spata13</i>	1,793710591	1,905565945	1,973313116	1,713119403	1,902306871
<i>Rest</i>	1,829445292	1,944367144	2,0138698	1,631182563	1,952936167
<i>Cbr1</i>	1,735964087	2,020666174	2,044753487	1,568839379	1,79303526
<i>Klhdc7b</i>	1,751155439	2,03457054	2,201423341	1,593615926	1,964842134
<i>Gm614</i>	2,002679814	1,947041643	1,912794596	1,60476124	1,827569108
<i>Il12rb1</i>	1,991748049	1,797201296	1,904668076	1,486940733	1,872332341
<i>E130317F20Rik</i>	1,911402535	1,954666471	1,907360374	1,380004877	1,957649394
<i>Lmnb1</i>	1,751041507	1,756731361	1,971221671	1,58492202	1,973431972
<i>Rai1</i>	1,657569412	1,737111269	1,934139405	1,574588606	1,958829921
<i>Ptch1</i>	1,723327934	1,704530619	2,067580001	1,459362359	2,036214191
<i>Slc11a2</i>	1,789815318	1,696890434	1,948201572	1,454067325	2,064679391
<i>Rcor2</i>	1,769696142	1,713484418	1,855283434	1,477051502	2,019491636
<i>Pura</i>	1,610329541	1,944869421	1,861471342	1,518578757	2,013014997
<i>Unc13d</i>	1,642590955	1,60090854	1,654729956	1,615812627	2,060292387
<i>Haghl</i>	1,697050448	1,666122793	1,600503881	1,55495822	2,077655941
<i>Fam109a</i>	1,752679867	1,693858318	1,716596739	1,404673877	2,114702641
<i>Calm3</i>	1,800787431	1,589195897	1,780559085	1,673664359	2,102536475
<i>Trim14</i>	1,80331144	1,696341346	1,767291893	1,659342941	2,12185007
<i>Tomm34</i>	1,869652374	1,668790307	1,826973672	1,670071519	2,038142118
<i>Anp32e</i>	1,737216495	1,561642092	1,892134874	1,602866013	2,16208155
<i>Mrps12</i>	1,831864907	1,476009692	1,601358105	1,674804272	2,100254817
<i>1700001G11Rik</i>	1,895411217	1,594038191	1,528890041	1,494553568	2,143298785
<i>Rhbdl1</i>	2,072646576	1,648250773	1,853885702	1,544754916	2,216180685
<i>Gamt</i>	2,075120528	1,615723199	1,722084978	1,514534755	2,142474216

<i>Dnajc15</i>	2,022404611	1,628656976	1,831810018	1,377735776	2,10249067
<i>Padi2</i>	1,996440148	1,6873642	1,808533623	1,619047349	1,723307747
<i>Agfg2</i>	1,957173142	1,62504623	1,919496691	1,675749284	1,805278413
<i>Hmbs</i>	1,942697971	1,460350103	1,789489766	1,705659239	1,778230895
<i>Mcarn</i>	1,838095501	1,593383649	1,800794374	1,524673662	1,887258624
<i>Trpc4ap</i>	1,866946892	1,603457921	1,858791136	1,595162475	1,848940195
<i>Tmem50b</i>	1,942395341	1,631748289	1,753333088	1,67550667	1,93039428
<i>Idh2</i>	1,9852977	1,838259084	1,921796705	1,889613215	1,940227314
<i>Sft2d2</i>	1,968973104	1,912418938	1,919665384	1,870540022	1,903542428
<i>Crtc3</i>	1,839164429	1,848984313	1,895611745	1,81437672	1,914582178
<i>Tnf</i>	2,003258161	1,630456592	1,865608599	1,965315836	1,910757476
<i>Notch1</i>	2,090167559	1,819017388	1,87835783	1,812883342	2,124692371
<i>Med29</i>	2,036887598	1,778783283	1,889151052	1,835334589	2,056550932
<i>1190002F15Rik</i>	2,11655269	1,899953602	1,888589911	1,959042357	2,080026787
<i>Srebf2</i>	1,937539423	1,779588321	1,976096706	1,809389166	2,100666851
<i>Gm19557</i>	1,927610889	1,825376656	1,860204004	1,795724328	2,082709032
<i>Fam117a</i>	1,925281108	1,740532022	1,968510174	1,683612607	2,141433514
<i>6330512M04Rik</i>	2,046493604	1,7166237	1,893193525	1,694892383	1,968590328
<i>Ifngr1</i>	2,162621966	1,783312395	1,822553568	1,668169503	1,775116003
<i>Gm15408</i>	2,134259405	1,774069451	1,848093102	1,612871652	1,854165176
<i>Poc1b</i>	2,071015809	1,827354878	1,782141327	1,641528441	1,81881248
<i>Reep4</i>	2,100242247	1,798202384	1,658123249	1,831797425	1,929540332
<i>Hmg20b</i>	1,685358454	1,560560837	1,853736547	1,573158633	1,980903514
<i>Tmem201</i>	1,669404152	1,617732702	1,861780428	1,687187269	1,960066301
<i>0610011F06Rik</i>	1,683990038	1,381569389	1,792007545	1,647998991	1,912082738
<i>Gm12216</i>	1,628603652	1,505731288	1,717241635	1,565873854	1,993141214
<i>Wdr24</i>	1,552281808	1,554882953	1,631815945	1,49417913	1,899260384
<i>Rftn1</i>	1,629281943	1,591648289	1,795576204	1,564336793	1,854565804
<i>Cdk2ap1</i>	1,605668476	1,598135795	1,788804137	1,461448932	1,812835234
<i>Etohd2</i>	1,653565667	1,663321534	1,763324207	1,550308637	1,910737818
<i>F12</i>	1,614801852	1,648303674	1,690946806	1,538630839	1,86302977
<i>Ankrd39</i>	1,641139103	1,714527152	1,764680134	1,631125288	2,176351552
<i>Rpl36al</i>	1,549566466	1,676918929	1,67394473	1,651721382	2,259040938
<i>2900010M23Rik</i>	1,487884184	1,773435563	1,763557302	1,592962612	2,074301821
<i>Fam100a</i>	1,72429409	1,723201196	1,459606426	1,844467806	1,855541541
<i>Hmga2-ps1</i>	1,711252744	1,592581739	1,449094245	1,699048457	1,991266004
<i>Rhbdf2</i>	1,826881434	1,647425605	1,611538379	1,738493877	1,84992387
<i>Tmem42</i>	1,836062024	1,606393094	1,571169781	1,710527499	1,805570009
<i>1700007I08Rik</i>	1,882724802	1,527526724	1,488575477	1,682477643	1,909307903
<i>Cdc6</i>	1,829587806	1,759475751	1,664594504	1,668157618	1,852232938
<i>Fam110a</i>	1,781793218	1,759935776	1,66087539	1,5686797	1,86432566
<i>Adora2a</i>	1,73600277	1,680125754	1,589264785	1,641480301	1,875599338
<i>Itga6</i>	1,524112805	1,665921414	1,598977413	1,881662612	1,852922365
<i>Cdkn1b</i>	1,721698592	1,612832976	1,722967674	1,796046085	1,841607798
<i>Abca7</i>	1,499333519	1,530629014	1,562459944	1,686932973	1,96955731
<i>Setd4</i>	1,506199385	1,568414416	1,604386339	1,700243037	1,849952709
<i>Gm19705</i>	1,460498496	1,544409262	1,695293266	1,757952947	2,025390497
<i>Tmem179b</i>	1,518886709	1,401991531	1,65646856	1,981137678	1,800688627
<i>Cilp2</i>	1,604818933	1,53758912	1,73488563	2,052678122	1,940888633
<i>Crip1</i>	1,423834365	1,471835069	1,587450944	1,961760319	1,997788527
<i>Ttc13</i>	1,486408909	1,539037817	1,673730904	1,919417363	2,016673359

<i>Rasal1</i>	1,560935013	1,477419349	1,616534257	1,945783158	2,091613767
<i>Dusp28</i>	1,717403297	1,298152611	1,693753338	2,089275232	2,018560912
<i>Gstt2</i>	1,683800558	1,370531964	1,7723294	2,038803264	1,91714566
<i>Insl3</i>	1,756360187	1,121067191	1,894574055	1,953336513	1,956166142
<i>Cbl</i>	1,608316853	2,134685705	2,230206044	2,093692934	2,23508985
<i>Dusp4</i>	1,708547679	2,191511095	2,138185333	1,985663823	2,189183764
<i>Fam160b1</i>	1,720932063	2,153782634	2,169613981	2,251078641	2,30537924
<i>LOC100859962</i>	1,671801902	2,182096179	2,040731747	2,264632014	2,213178267
<i>Cflar</i>	1,638649513	2,313309876	2,276370872	2,176890437	2,324174862
<i>Pip4k2a</i>	1,582572084	2,361594839	2,315473551	2,191968638	2,201689341
<i>Grb2</i>	1,700798912	2,230214743	2,296010402	2,211780657	2,452061245
<i>Orai1</i>	1,781910344	2,222422507	2,311864517	2,299000819	2,377743129
<i>2810432D09Rik</i>	1,844849294	2,24639941	2,198524693	2,341840807	2,416981639
<i>Gm11541</i>	1,879923929	2,509896839	2,333306212	2,260092727	2,253446231
<i>Extl3</i>	1,92598088	2,526935918	2,235609089	2,297808944	2,095663317
<i>2310033P09Rik</i>	1,897405087	2,525374665	2,19109929	2,495718642	2,250656589
<i>Mtss1</i>	1,975938358	2,315588092	2,135846179	2,31347744	2,033944256
<i>Lym2</i>	1,578439232	2,393426359	2,478216432	2,011714469	1,905165578
<i>B230217C12Rik</i>	1,633512626	2,633388061	2,267427017	1,839311845	2,17170983
<i>Nr4a1</i>	1,365355909	2,731912748	2,512943153	2,224577487	1,96576933
<i>Zbtb7b</i>	1,586110668	3,391044633	1,950460272	2,620702305	1,772729675
<i>Gm15708</i>	1,791020458	2,506353895	1,750574803	2,534586157	1,936547822
<i>6430562O15Rik</i>	2,171532224	2,765715053	2,27770107	2,363642946	1,685392334
<i>Dusp6</i>	1,955915534	2,762664992	2,374217317	2,261858197	2,035421225
<i>Ppp1r35</i>	1,964712552	2,191881688	1,735078265	2,022600341	1,886600821
<i>Arhgef10</i>	1,852296977	2,043006735	1,792189529	1,979027734	1,683421059
<i>4931406H21Rik</i>	1,705638342	2,244291831	1,634866826	1,819857699	1,894227643
<i>Ptpn7</i>	1,557008666	2,138313151	1,627411756	1,918047145	1,79928199
<i>Gimap6</i>	1,679096657	2,265517947	2,033482769	1,906355582	2,078683684
<i>Nsg2</i>	1,746241892	2,12952579	1,869072785	1,931864628	1,965965431
<i>Tspan31</i>	1,911796335	2,308564886	1,962525465	1,91015037	1,908036576
<i>Med13l</i>	1,869698632	2,116221016	1,999834757	2,011941495	1,915640608
<i>Jund</i>	1,811248944	2,064724428	2,090319844	1,858489045	1,866446296
<i>Irf4</i>	1,812355383	2,266555767	1,845977923	1,821462446	1,680094741
<i>Chdh</i>	1,721484616	2,301444433	2,001239801	1,817767827	1,488621206
<i>Asb2</i>	1,696152582	2,480843444	1,899605024	2,026713358	1,490148474
<i>Il17rb</i>	1,540485524	2,443092051	1,997449469	2,244390329	1,57928896
<i>Gadd45a</i>	1,32129518	2,585010265	1,777549431	2,280364515	1,615783828
<i>4933427E11Rik</i>	1,319196642	2,080561669	2,40081713	2,720587181	1,431154013
<i>B4galnt1</i>	1,617504161	2,433623105	2,882933985	2,511359511	1,207820627
<i>2010016I18Rik</i>	1,735672183	3,078394915	2,656402316	1,315884215	1,401801073
<i>Limd2</i>	1,955228853	3,41325255	2,795574382	1,281069262	1,990316732
<i>Psenen</i>	1,62761086	2,643462888	2,646292616	0,870415915	1,992339032
<i>4930453N24Rik</i>	0,983619947	2,23115536	2,268927583	2,358055391	2,440426279
<i>Usp12</i>	0,830595752	2,286559873	2,392217807	2,301829892	2,501783147
<i>Apol9b</i>	0,618015113	2,359433438	2,190264544	2,500288213	2,286532043
<i>Ccnl1</i>	0,663624381	2,100970607	2,473607208	2,279288606	2,449612523
<i>Ppm1b</i>	0,619979754	2,200729387	2,315719292	2,244735139	2,382468868
<i>Elk4</i>	0,805254892	2,08246745	2,355101941	2,118595971	2,476897667
<i>Rpl34-ps1</i>	0,730352944	1,857332486	2,41073044	2,255058338	2,435964372
<i>Rpl34</i>	0,729143775	1,860090546	2,416705262	2,242389633	2,447110692

<i>Peli1</i>	0,720739603	1,886088679	2,457890374	2,275288935	2,36139382
<i>Hspa8</i>	0,786415561	1,880816231	2,286014284	2,253295733	2,228761371
<i>Vim</i>	0,411484779	2,161636972	2,085158115	2,389592944	2,597801792
<i>Rgs3</i>	0,668949546	2,244247276	2,335255764	2,376882014	2,723275434
<i>Hspa5</i>	0,392800634	1,977927811	2,406847795	2,342994503	2,457474594
<i>Egr2</i>	0,46644389	2,57732462	2,533227936	2,153941628	2,305315562
<i>Bcl2</i>	0,517468563	2,024966522	2,152563302	2,079690137	2,184272544
<i>Gpr65</i>	0,37015133	2,208993269	2,214691479	2,111274521	2,192007773
<i>Samhd1</i>	0,442259952	2,125150022	1,950971641	2,191159196	2,149378026
<i>Bach2</i>	0,256310906	2,17643525	1,966720325	2,224318063	2,086030069
<i>4932438H23Rik</i>	0,603463255	2,437631918	2,001265615	2,054679988	1,826977916
<i>Id2</i>	0,650512557	2,316483368	2,152438989	2,059020549	1,645207201
<i>1700064M15Rik</i>	0,614089311	2,130124771	2,427966566	2,435826953	1,66613442
<i>Yy1</i>	1,08628414	2,160514681	2,420294572	2,301233826	2,333989324
<i>Rhog</i>	1,029527828	2,189907277	2,411369078	2,162236619	2,340902288
<i>Fam168b</i>	1,049054281	2,242009203	2,274103821	2,217002632	2,320255696
<i>Pigx</i>	1,209126247	2,137195057	2,295212566	2,216044632	2,443138981
<i>Pgam2</i>	1,127092991	2,158346621	2,303350114	2,219736857	2,483734138
<i>Mgea5</i>	1,150599305	2,021544475	2,258905006	2,292033361	2,432292509
<i>B230319C09Rik</i>	1,232165219	2,139524502	2,4010075	2,481587208	2,290624328
<i>Zfp740</i>	1,138948968	2,03803081	2,455699359	2,513521307	2,456502571
<i>Rbm4</i>	1,181827353	2,442583864	2,24511779	2,199919144	2,23866618
<i>4732490B19Rik</i>	1,179248799	2,36410423	2,147730968	2,239337047	2,462228454
<i>Itgb3</i>	1,179142205	2,45146928	2,196690576	2,462588935	2,128181904
<i>Wibg</i>	1,142628806	1,880392018	2,126995588	2,37546852	2,446173155
<i>Dgka</i>	1,103419766	1,937322837	2,222835879	2,426740596	2,558596523
<i>Srpk1</i>	1,055676827	1,956012276	2,059570079	2,31667131	2,552293337
<i>Tecpr1</i>	1,137635454	1,983575012	1,917966573	2,40541039	2,340650576
<i>Herpud1</i>	1,205574342	1,859696887	2,010152905	2,397306172	2,338220904
<i>Tnfrsf4</i>	0,945070015	2,7124157	1,949876233	2,522649789	2,45423396
<i>B3galt6</i>	0,833865395	2,219965312	1,897033692	2,670990495	2,51469671
<i>1700030A11Rik</i>	0,729490293	2,095340666	2,299176614	2,103993208	2,056374721
<i>Sfpq</i>	0,937659213	2,060517384	2,213950652	2,09532316	1,981821601
<i>Gm11648</i>	0,905969274	2,097009062	2,209743868	2,361179534	2,229903731
<i>Tbrg3</i>	1,001716103	2,151860759	2,298396868	1,960044675	2,302028849
<i>Msl2</i>	1,056194186	2,091702541	2,281666535	2,082823938	2,283658848
<i>Arpc2</i>	1,085104032	2,161503471	2,289296952	2,059443931	2,101991503
<i>Ecm1</i>	1,104951079	2,242848506	2,380138499	2,068267913	2,12238249
<i>Hnfnph1</i>	0,841055259	2,136255114	2,154785332	2,03060197	2,19487211
<i>Cd69</i>	0,824415406	2,257170754	2,212196745	2,026632079	2,210600898
<i>Cytip</i>	0,935952419	2,216441477	2,112170048	2,081129793	2,253569906
<i>Mpdu1</i>	0,870643246	2,218096713	1,925885891	2,037468552	2,278724648
<i>Mapk11</i>	0,929031734	2,45973153	2,086675331	1,89959309	2,147675945
<i>Parp3</i>	0,890734305	1,912686901	1,959015704	2,327165987	1,930017482
<i>Tgfbr3</i>	0,920203791	2,197619029	1,954262888	2,334157304	1,982715377
<i>St6gal1</i>	1,222236233	2,145242221	1,89944056	2,082917242	2,000501427
<i>Chrm4</i>	1,188404046	2,158542911	1,821764802	2,337949299	1,909486416
<i>2700046G09Rik</i>	1,001626171	2,533244925	1,861099392	3,062008344	2,228550613
<i>Ptgir</i>	0,995464585	3,198637126	1,723099072	2,941584283	2,012165194

	Intragenic 5hmC (log2 CMS-IP/Input)				
Gene symbol	DP	CD4 SP	CD8 SP	naïve CD4	naïve CD8
<i>Gm2933</i>	3,448326137	-3,724399252	0	1,976219967	4,325400807
<i>Gm3706</i>	3,267143236	-2,65882614	0	0	3,215164477
<i>Gm2913</i>	3,263841188	0	0	1,558883275	0

Cluster 4					
	Intragenic 5hmC (log2 CMS-IP/Input)				
Gene symbol	DP	CD4 SP	CD8 SP	naïve CD4	naïve CD8
<i>Olfr1392</i>	-0,223912088	0,858279175	0,90091131	0,464962906	1,271816676
<i>Cycs</i>	0,086803616	0,741634511	0,739809028	0,312252723	1,306362714
<i>Bcl2a1b</i>	0,021365981	0,745216589	0,697392728	0,463155105	1,020354199
<i>Acbd6</i>	0,074096635	0,654258587	0,691568729	0,474578972	1,051701791
<i>Mia1</i>	-0,036477438	0,765707337	0,545577577	0,536359831	1,199572622
<i>Tnfrsf12a</i>	0,021776509	1,33028447	0,767723423	0,077422136	1,152475264
<i>Cd63</i>	0,275049936	0,786134242	0,195991309	0,228111586	1,491290613
<i>Chchd1</i>	0,015717148	0,882763862	0,163340878	0,110860275	1,534338849
<i>Sra1</i>	0,086979919	0,823561072	0,283296107	0,324888332	1,155619142
<i>Spata25</i>	-0,107954733	0,654039232	0,230514875	0,637133023	1,569455003
<i>Ppcs</i>	0,400566022	0,679960269	0,642866745	0,398608075	1,638389472
<i>Cox7a1</i>	0,696612182	0,972026816	0,588722272	0,13548295	1,114641665
<i>Tacstd2</i>	0,927274844	1,268582923	0,683628594	0,151350949	1,184105432
<i>Hddc3</i>	0,542850533	1,226608063	0,421519301	-0,016835312	0,72263004
<i>Klrc3</i>	-0,367834538	0,074658987	0,118949908	-0,228592136	1,415945929
<i>Tmem181c-ps</i>	0	0	0	-1,921116374	1,320114931
<i>3000002C10Rik</i>	-0,121057007	-0,277806392	-0,22186403	0,217646651	1,318515862
<i>Dmrtc1c1</i>	0	-1,315398128	0	-1,660312573	1,731613379
<i>Dmrtc1c2</i>	0	-1,315398128	0	-1,660312573	1,731613379
<i>Adam1b</i>	0,364431904	0,033187154	0,383537947	-0,02423943	1,658781714
<i>Lrrc4</i>	0,252999287	-0,143501781	0,284109694	0,099913286	1,361929214
<i>Olfr30</i>	0,707859839	0,60229071	-0,641315138	-0,525571647	1,256223923
<i>Gm7092</i>	0,95647743	-0,3277396	-0,165361016	-0,118449599	1,169189414
<i>Vmn2r36</i>	-1,006477564	1,196298582	-1,128656339	0,050718971	-0,662300309
<i>Cngb1</i>	0	1,030124161	-0,712234786	0	-0,956267092
<i>2310081J21Rik</i>	-2,485566724	1,503465724	-0,899189035	-4,488302908	1,009098009
<i>A430092G05Rik</i>	-0,074909497	0,686086317	0,577925564	1,437498696	0,735113707
<i>Gdap10</i>	0,15677194	0,811763154	0,89034618	1,353672091	0,734256977
<i>Nkapl</i>	0,372475177	0,391447054	0,717900077	1,373849567	0,951530091
<i>Gm2518</i>	0,423645368	0,597718081	0,795575077	1,325888964	0,77622772
<i>Pja1</i>	0,099322464	0,575479744	0,825298272	1,132363301	0,55333631
<i>B130034C11Rik</i>	0,171286257	0,517437239	0,685399236	1,067538984	0,510706117
<i>9230116N13Rik</i>	-0,039070606	0,608324272	0,961536979	1,071941275	0,508987339
<i>BC003965</i>	0,606026845	0,576052225	0,698341598	1,003760918	0,823675509
<i>D930048N14Rik</i>	0,699196268	0,529757918	0,779968088	1,011541833	0,680203399
<i>Rgs9bp</i>	0,809013353	0,469831758	0,62640252	1,084259847	0,497820136
<i>Grhpr</i>	0,742829433	0,631444487	0,668694346	1,130116626	0,810859879
<i>Rpa3</i>	0,843187394	0,593747943	0,566113952	1,248718076	0,768972424
<i>Nle1</i>	0,783006393	0,645921227	0,540549675	1,099172386	1,009097514
<i>6530401N04Rik</i>	0,355420915	0,668776972	0,506185558	1,160082009	0,613120586
<i>Paccin2</i>	0,313037713	0,73860902	0,435655279	1,022000311	0,720899637
<i>Pttg1</i>	0,558315283	0,727002886	0,351267662	1,077123914	0,758962675

<i>Prph</i>	0,586152257	0,602569691	0,242743023	1,143700329	0,403947415
<i>Ifnk</i>	-0,023066545	0,374692265	0,132681434	1,147889287	0,703333077
<i>Vpreb3</i>	-0,03648486	0,198404043	0,165193099	1,282315828	0,432256444
<i>B3gnt4</i>	0,279505912	0,409890914	0,149901917	1,465198406	0,588867076
<i>Rnase10</i>	-0,240935862	0,695578997	0,295041161	1,230841822	0,439992214
<i>St8sia6</i>	-0,056791956	0,726172834	0,348775609	1,019239635	0,353037078
<i>Arl4d</i>	0,07565439	0,738012813	0,180552235	1,006463931	0,634648046
<i>Ibtk</i>	0,106502226	0,435735303	0,442072844	1,105120044	0,586569589
<i>Gpihbp1</i>	-0,511830038	0,679404188	-0,116793221	1,268423599	0,945428064
<i>Tmem120a</i>	0,513083195	0,907920931	0,595817012	1,059766787	0,612070722
<i>F730043M19Rik</i>	0,526958991	0,841169918	0,77950886	1,072093696	0,638356052
<i>Bcl9</i>	0,293372312	0,848078593	0,785594387	1,089609945	0,598629175
<i>Lgmn</i>	0,53538996	1,04700221	0,684076352	1,131790782	0,454695211
<i>Al317395</i>	0,434237591	0,940290894	0,583859205	1,180861703	0,398059559
<i>Atp1a2</i>	0,356364382	0,991914734	0,663529012	1,082481888	0,783791348
<i>Znrd1as</i>	0,381632519	1,023983231	0,557607312	0,900074363	0,713263529
<i>Cyp27b1</i>	0,566728144	1,038916878	0,548049653	1,073252718	0,851322617
<i>1700034O15Rik</i>	0,270875409	1,01253039	0,379218983	0,882944265	0,499784502
<i>Fcrl1</i>	0,289727509	1,042812746	0,424542944	0,959927334	0,624302628
<i>Cd200r1</i>	0,09773461	1,116162391	0,456813488	1,054230276	0,466018978
<i>Siah3</i>	0,262742723	0,809749031	0,432926117	1,016496785	0,415429752
<i>Stk39</i>	0,336468522	1,039975074	0,690479014	0,937612355	0,53143318
<i>Atp6v1e2</i>	0,312698947	1,110518153	0,620167682	0,868732714	0,619273249
<i>Spef1</i>	0,646046306	0,849950866	0,567416053	1,090507279	0,215132759
<i>Dbil5</i>	0,669056048	0,890269078	0,663585099	1,066733967	0,047723596
<i>Uox</i>	0,453468312	1,423270985	0,504453864	1,15000018	0,156623088
<i>4933406C10Rik</i>	0,237075031	1,026213123	0,427283422	0,857865944	0,29097803
<i>BC048562</i>	0,352034324	1,110541887	0,475127859	0,927459669	0,245490983
<i>Gm14718</i>	0,360937962	1,176321196	0,23263508	0,882999412	0,253768845
<i>Csf2</i>	-0,015693868	1,008831213	0,308351521	0,86962989	0,347825446
<i>Gm9958</i>	0,137607007	1,371628285	0,348337627	0,713782522	0,270529046
<i>Dcst1</i>	0,16867966	1,154822911	0,006305079	0,929858688	0,159574849
<i>Gm4971</i>	-0,294614927	-0,006421195	0,437954171	1,088718765	0,548367632
<i>Rpl22l1</i>	-0,391117434	0,091377457	0,399655221	1,042682534	0,531498309
<i>Hspe1</i>	-0,061858694	0,038452565	0,417213957	1,239010223	0,837849044
<i>Mrpl36</i>	0,535738093	0,211646329	0,534444634	1,233747344	0,299500071
<i>Gm2825</i>	-1,12409425	-4,788899698	0	1,431573527	-3,122884718
<i>Olfir697</i>	-0,08879425	-2,233755269	-1,290249076	1,08919416	-0,281289849
<i>Alpk2</i>	0,07667923	0,732118395	0,709998037	1,050901671	1,071609781
<i>Gm14446</i>	-0,224792961	0,740846257	0,646119965	1,033109662	1,089453503
<i>Thyn1</i>	-0,092031484	0,687555021	0,616688544	1,082257808	1,215048834
<i>Aqr</i>	0,109720376	0,678163113	0,738978298	1,254110263	1,247204233
<i>Malt1</i>	-0,0565527	0,653475012	0,782434824	1,151766577	1,25502622
<i>Mrps30</i>	0,107431231	0,566520026	0,874774138	0,948418271	1,120681538
<i>Serinc1</i>	0,076547739	0,638255776	0,929975575	1,039415999	1,076087401
<i>Snrpf</i>	-0,211114695	0,596610496	0,811889205	1,001115662	1,016586599
<i>Pydc3</i>	-0,205374486	0,515640554	0,798136419	1,031098872	1,114269375
<i>AU019990</i>	0,09574132	0,470087854	0,800276939	1,058366691	1,155438099
<i>Rnf138</i>	0,060971922	0,570334629	0,787318287	1,118655752	1,124804124
<i>Gatad2b</i>	0,095137612	0,644138896	0,625338746	0,731144032	1,314840013
<i>Rps5</i>	0,15629377	0,803154411	0,693132259	0,784877376	1,309160191

<i>Ctrl</i>	0,17362167	0,794067942	0,503127346	0,788630423	1,226590416
<i>2410004N09Rik</i>	0,122292164	0,696430567	0,519329506	1,013362424	1,408520081
<i>Pasma2</i>	-0,042979423	0,709567742	0,88932185	0,850812775	1,294875887
<i>Xrn2</i>	0,050744235	0,616497942	0,859037922	0,815291059	1,359896447
<i>Pdcd10</i>	0,005492318	0,685409074	0,960309821	0,917407331	1,380662545
<i>Ctsc</i>	-0,094755762	0,716244489	0,977843488	0,91384961	1,373116174
<i>Ptp4a1</i>	0,122163228	0,811613907	0,874972421	1,031036455	1,454422411
<i>Psmc4</i>	0,164818399	0,978352653	0,737796935	0,620470331	1,36018622
<i>Hist2h3c2</i>	0,256890167	0,94013852	0,718276262	0,768124384	1,525305474
<i>Unc50</i>	0,454930061	0,655641745	0,742919486	0,921084079	1,384008378
<i>9430023L20Rik</i>	0,419088169	0,782730739	0,694906173	0,939461034	1,454022044
<i>Tfip11</i>	0,35951895	0,709822159	0,693962105	0,758250722	1,426487286
<i>Slc25a2</i>	0,321999233	0,624888653	0,809640586	0,853590842	1,33410427
<i>Eef1d</i>	0,324831528	0,76268503	0,836727003	0,934062051	1,360113136
<i>Plac8</i>	0,472081961	0,675801015	0,830306584	0,780259474	1,267277967
<i>Spryd3</i>	0,441241564	0,58146777	0,852965041	0,821290027	1,277796675
<i>Fxyd4</i>	0,39594606	0,617852453	0,829740284	0,691240689	1,261228298
<i>Zfp259</i>	0,340493778	0,489598933	0,760250154	0,759934569	1,32837636
<i>Polr2g</i>	0,249191448	0,7268294	0,836478046	0,933529724	1,035796686
<i>Sf3b3</i>	0,225552915	0,676806177	0,905627308	0,9262934	1,042113278
<i>Zfc3h1</i>	0,188449046	0,751349379	0,889152422	0,873878815	1,000858926
<i>Bmi1</i>	0,214624124	0,741724281	0,932343965	1,013589431	1,000766848
<i>Cdc27</i>	0,229056525	0,786455453	0,925316957	1,015320196	0,954403232
<i>Nktr</i>	0,25497714	0,783292922	0,939781094	1,00345917	1,034512405
<i>Ubap2</i>	0,334052008	0,811408288	0,889501677	0,908237202	1,031785799
<i>Pcmt1</i>	0,323673568	0,758642173	0,849041073	0,914869568	1,041534018
<i>Appbp2</i>	0,317863339	0,724737491	0,909447703	0,969802226	1,005981039
<i>Cse1l</i>	0,359928814	0,817615494	0,896403333	0,973193221	1,11775303
<i>Eef1g</i>	0,32024867	0,764786454	0,933776302	0,980058809	1,151165762
<i>Phf3</i>	0,359092531	0,78747139	1,02356415	0,872104248	1,059476797
<i>Cdc26</i>	0,347807471	0,743828652	1,053006497	0,858248651	1,087507363
<i>4933425H06Rik</i>	0,298911157	0,725132485	1,035141401	0,823481785	1,002346307
<i>Acsl4</i>	0,250154731	0,821858266	1,077076456	0,856866111	0,995823944
<i>Dcp1b</i>	0,257919776	0,678354114	1,004127651	0,920173642	0,996326922
<i>Aftph</i>	0,412079214	0,817099429	1,017605749	0,913763136	0,958937561
<i>Galnt1</i>	0,406429808	0,802728538	1,002447332	0,89813111	1,017797458
<i>Samd8</i>	0,27284456	0,835370325	0,965988917	0,830248726	1,072190407
<i>Mllt10</i>	0,269470919	0,801914224	0,925644581	0,843478901	1,009723509
<i>Gspt1</i>	0,307585193	0,805234644	0,896215372	0,859528673	1,067718251
<i>8030462N17Rik</i>	0,249447068	0,809847083	0,899701596	0,877295303	1,090762804
<i>Arpc5l</i>	0,229536761	0,846652451	0,90125854	0,915427533	1,03895701
<i>Kif2a</i>	0,227021834	0,80347492	0,90868087	0,897256389	1,022394731
<i>Eif3j</i>	0,301054113	0,801297589	0,995913065	0,83313404	1,121723822
<i>Gm9781</i>	0,301056616	0,798752761	0,993759032	0,833132605	1,121719938
<i>Hemk1</i>	0,286105457	0,831647462	1,011334969	0,838555084	1,157660138
<i>Map3k2</i>	0,29634752	0,753781603	0,969932204	0,870155409	1,113360756
<i>Tiprl</i>	0,378885226	0,786795692	0,932615118	0,846103501	1,141022953
<i>Mlxip</i>	0,416756133	0,760927443	0,94789612	0,885638655	1,131968756
<i>Mettl11a</i>	0,383878047	0,85159982	0,888245364	0,834606574	1,10738687
<i>Insig2</i>	0,32307009	0,851635675	0,975918459	0,918685856	1,066937849
<i>Smg1</i>	0,357164822	0,843073323	0,943504502	0,891945257	1,054760764

<i>Zmynd11</i>	0,356031656	0,844340332	0,961757084	0,891601575	1,15200675
<i>Arhgap17</i>	0,398869846	0,920061114	0,989251794	0,911312193	1,104436904
<i>Omg</i>	0,123077763	0,825875852	1,035985912	0,938630122	1,02478325
<i>Arih1</i>	0,139737994	0,805657962	0,953063841	0,888980844	1,041042233
<i>Nt5c3</i>	0,143195437	0,80355331	0,937373328	0,989553306	1,032657693
<i>Tbca</i>	0,164972224	0,846745766	0,9448855	0,985896448	1,065056614
<i>Mrrf</i>	0,18746116	0,905140099	1,036195784	0,945658626	1,044032156
<i>Nipbl</i>	0,191757362	0,880840311	0,983294162	0,953493793	1,037005357
<i>Setd2</i>	0,255207273	0,896129438	0,991234432	0,977734314	1,05570853
<i>Luc7l2</i>	0,176652461	0,781676823	1,060898678	0,952174634	1,178557318
<i>Crebzf</i>	0,19381953	0,778223362	0,97393946	0,985211386	1,138567637
<i>Abhd13</i>	0,485649409	0,883856695	1,080458361	0,973638007	1,22419773
<i>Mtmr6</i>	0,422678639	0,827623139	1,083557695	0,935549703	1,16968939
<i>Ctbp1</i>	0,430286116	0,863434826	1,103620043	1,02446804	1,146002706
<i>Cops4</i>	0,4052837	0,879410219	1,034291863	1,022551744	1,152070256
<i>Ube2k</i>	0,418607817	0,863823033	1,057593983	1,089423926	1,177214087
<i>Zc3h7a</i>	0,422416796	0,923630812	1,075184712	1,051465677	1,165359873
<i>Celf1</i>	0,381780759	0,924985738	1,090580458	1,062508533	1,129637033
<i>Sar1b</i>	0,478613788	0,89389778	0,993649139	0,909095708	1,203268406
<i>9530068E07Rik</i>	0,484915736	0,965035064	1,014062432	0,88376332	1,180583455
<i>Zbtb8os</i>	0,420257488	1,002712452	0,991802054	0,985934076	1,142017095
<i>Ppp2r5e</i>	0,421223047	1,005190208	1,048949766	0,985889876	1,14159012
<i>D10Wsu102e</i>	0,389728583	0,949333579	1,02249178	1,009151194	1,124883949
<i>Rbbp4</i>	0,475645033	0,877572503	1,021462222	0,82580491	1,187662487
<i>Tmem80</i>	0,507286428	0,85554031	0,979010584	0,819656329	1,155220772
<i>Wdr33</i>	0,476887701	0,877084462	1,069587315	0,841560099	1,082549041
<i>Sdf2</i>	0,429332352	0,847432826	1,0968026	0,808847522	1,199862965
<i>Ccdc59</i>	0,335908221	0,784289911	1,086903938	0,867208445	1,234302652
<i>Car2</i>	0,372475612	0,792301487	1,058035608	0,84381572	1,275064946
<i>Brpf1</i>	0,30175678	0,877024401	1,021798698	0,82258383	1,223693364
<i>Zfp263</i>	0,478249698	0,968680742	0,875876937	1,001249449	1,042384558
<i>Setd3</i>	0,479882446	0,941642539	0,902841226	1,042360371	1,019042273
<i>Ctse</i>	0,452349326	0,919961668	0,926259731	1,067550753	1,071933877
<i>Dcun1d1</i>	0,408335526	0,989457237	0,935465018	1,029506837	0,990748249
<i>Hmbox1</i>	0,477888318	0,986836623	0,947198044	1,071535595	0,980747399
<i>Tmem19</i>	0,500281836	0,940212749	0,964014919	1,04356145	0,923905947
<i>Rasip1</i>	0,549749147	0,958513766	1,07299841	1,093214162	1,047011808
<i>Xist</i>	0,531484848	0,983548892	1,119829068	1,020460722	1,045054717
<i>6530418L21Rik</i>	0,54673592	1,050620146	1,071061066	1,04509122	1,00918955
<i>Zcchc8</i>	0,528850254	1,034506836	1,094798898	0,963609064	1,091256443
<i>Sec63</i>	0,47405324	1,027863915	1,056879068	1,01582424	1,092684088
<i>Smadcb1</i>	0,457112375	0,840039041	1,010417915	0,988038375	1,024239172
<i>Uhrf2</i>	0,442229517	0,860919663	1,017357153	0,948409504	1,057797769
<i>Zfp326</i>	0,451861774	0,895267419	1,008611572	1,042999649	1,021586363
<i>Hif1an</i>	0,463982708	0,892985521	1,020644042	1,022643599	1,033986899
<i>Rmnd1</i>	0,494362748	0,837530511	0,963405462	1,066527206	1,115818018
<i>Terf2</i>	0,462243028	0,784133213	0,965205072	1,018370168	1,125447452
<i>Cetn3</i>	0,394954189	0,8409754	0,935294311	1,027089945	1,018892156
<i>Adss</i>	0,340321657	0,853248535	0,973944295	1,051617108	1,067317129
<i>Ubap1</i>	0,38932851	0,910557864	0,937596389	1,029963144	1,028173389
<i>Apc</i>	0,342699398	0,916464604	0,909786243	1,033215339	1,056333882

<i>BC031781</i>	0,435169718	0,864001843	0,878761624	0,988101191	1,01521492
<i>Ubr5</i>	0,451039879	0,813872978	0,866940131	0,937792383	1,01042715
<i>Atxn2</i>	0,477689554	0,866305197	0,902195293	0,940967149	1,063177373
<i>Slc7a6os</i>	0,47027421	0,843018927	0,860851177	1,085105207	1,016002707
<i>Lats1</i>	0,373841358	1,001292984	0,96008133	0,917561445	1,173417189
<i>Med13</i>	0,388750693	0,971519643	0,942585992	0,952525194	1,121735157
<i>Rpl15</i>	0,372096989	1,0674976	0,937427641	0,896691642	1,105231592
<i>Higd1a</i>	0,35615077	1,10835867	0,864992909	1,019040185	1,103923664
<i>Traf6</i>	0,291037021	0,928285977	0,909330702	0,917079646	1,022763361
<i>Hcls1</i>	0,267069228	0,948595097	0,916214616	0,927107885	1,017296263
<i>Itsn2</i>	0,301316789	0,971347685	0,882678583	0,985083823	1,030010849
<i>Mgll</i>	0,280310011	0,958983374	0,835441047	1,000472165	0,951525849
<i>Snrpe</i>	0,259604431	1,034027097	0,886002055	0,848312721	0,93229495
<i>Tuba3a</i>	0,320916982	1,041474384	0,900479918	0,873293636	0,983231251
<i>Mettl17</i>	0,637762277	0,928307744	0,886610644	1,059760512	1,176168032
<i>Ccdc45</i>	0,611592821	0,842329151	0,856423124	1,054966183	1,186191624
<i>Vps52</i>	0,598296313	0,863819231	0,933930721	1,127499842	1,223111189
<i>Adsl</i>	0,556588575	0,936319062	0,904439493	1,1536377	1,13804939
<i>Gm15760</i>	0,566463723	0,928010156	0,881091715	1,162994489	1,174415575
<i>Oasl2</i>	0,504928869	0,877935414	0,939855425	1,132425471	1,153822838
<i>1110007C09Rik</i>	0,584212267	0,801735706	0,74774429	1,116547129	1,103476857
<i>Phf5a</i>	0,526438837	0,788106146	0,824186124	1,175344464	1,132703011
<i>Gm12669</i>	0,428148767	0,84944105	0,855829644	0,901252155	1,168739558
<i>Glr3</i>	0,423767576	0,847741778	0,852698652	0,906519762	1,156996317
<i>Tfam</i>	0,406788565	0,851422168	0,842456201	0,981335619	1,182209209
<i>Bin1</i>	0,469573609	0,824233248	0,838217109	0,96390494	1,233248343
<i>Tcea2</i>	0,443898159	0,91193702	0,894407889	0,904893823	1,239578278
<i>Pdcl3</i>	0,499228243	0,865920537	0,784596132	0,989104743	1,149698481
<i>Il18r1</i>	0,507563654	0,897965383	0,837252009	0,951928209	1,175626013
<i>Phrf1</i>	0,519836464	0,870997211	0,833693315	1,023169647	1,092770943
<i>Dhrs7</i>	0,482223016	0,914100039	0,702986532	0,98865196	1,181609653
<i>Erh</i>	0,419099186	0,885526234	0,750763375	1,050358515	1,271317358
<i>Nars</i>	0,354753864	0,913110178	0,81297788	1,125497192	1,039383635
<i>2610528E23Rik</i>	0,343495612	0,992696133	0,894598446	1,071162959	1,048408782
<i>Capn2</i>	0,465398656	0,976447415	0,843386424	1,154604904	1,071688
<i>Prkd3</i>	0,345982513	0,970481696	0,911543417	1,131014899	1,149299223
<i>Gtf2a1</i>	0,386584805	0,949729674	0,867305217	1,060756507	1,209796323
<i>Ell3</i>	0,538951139	1,045902273	0,776347288	1,029920574	1,057200078
<i>Cog8</i>	0,479393745	1,135299047	0,799057497	1,029573085	1,073674628
<i>Acot2</i>	0,472261228	1,011527944	0,750545109	1,090550515	0,980970764
<i>Sltm</i>	0,412622298	1,012799147	0,824267711	1,046097366	0,96422879
<i>1500004A13Rik</i>	0,473306951	1,00901915	0,699548685	0,765889104	1,2591628
<i>Samd10</i>	0,474501747	1,060513183	0,75298237	0,768547197	1,261846347
<i>Ache</i>	0,532528192	1,198598838	0,788718568	0,896914035	1,219077901
<i>Psmc3</i>	0,501109113	0,966523607	0,810511693	0,811881275	1,124263169
<i>4930412O13Rik</i>	0,529860805	1,103604016	0,790382779	0,802390993	1,091665912
<i>BC090627</i>	0,510511591	1,117699827	0,946351688	0,798961249	1,166078171
<i>0610010K14Rik</i>	0,659270429	1,003066982	0,67643326	0,894163092	1,065730467
<i>Dtx4</i>	0,587145087	0,977189423	0,7467804	0,921366967	1,099048616
<i>Aktip</i>	0,556678297	0,967947047	0,731886014	0,723092356	1,052203308
<i>0610007P14Rik</i>	0,639056055	0,926831966	0,787675785	0,732776578	1,071467343

<i>Pogz</i>	0,49276884	0,872691491	0,952778466	0,920070722	1,012397818
<i>4933433P14Rik</i>	0,534944349	0,898126354	0,973202079	0,914918128	1,033199339
<i>BC002230</i>	0,525573852	0,893798686	0,859563725	0,962899172	1,028654415
<i>Cdc42ep3</i>	0,548152153	0,86619242	0,860692143	0,939762045	1,025605493
<i>Slc30a5</i>	0,628955324	0,88134989	0,921062052	0,97150894	1,050133561
<i>Actr5</i>	0,566249131	0,901664309	0,932745244	0,949479032	1,084248563
<i>Slc38a10</i>	0,641883111	0,888101123	0,929403861	0,90418516	1,101387532
<i>Tatdn1</i>	0,570127428	0,84202832	1,003210831	0,888224461	1,128203102
<i>AA960436</i>	0,555923793	0,84695645	1,009370041	0,963511909	1,099843433
<i>Zfp266</i>	0,609015439	0,90072748	1,005128038	0,859572601	1,092567225
<i>Txndc15</i>	0,609982588	0,904190941	0,996843625	0,879155738	1,093088976
<i>Faf2</i>	0,563125302	0,856675445	0,979129577	0,875136757	1,054192811
<i>Hsf4</i>	0,567725702	0,898495067	1,082340785	0,944943695	1,050140447
<i>2700029M09Rik</i>	0,662622865	0,927109167	0,951189998	1,090055012	1,078349316
<i>Prkag2</i>	0,66092892	0,937655257	0,920226207	1,04519702	0,992521562
<i>Dcaf8</i>	0,668225052	0,917027501	0,984922159	1,000453744	0,955170626
<i>Brwd1</i>	0,631656696	0,884537505	1,013608915	1,025755566	0,989178542
<i>Rcl1</i>	0,714511473	0,849553836	0,889651377	0,981528398	1,08467028
<i>Lmtk3</i>	0,746906977	0,862665089	0,911890035	0,990226876	1,090610227
<i>Acss2</i>	0,695840979	0,90665852	0,919164978	1,002732191	1,056677268
<i>1700086O06Rik</i>	0,689847056	0,851155316	0,95175541	1,030137887	1,108954463
<i>Fam114a1</i>	0,685925001	0,842749441	0,892557579	0,958917637	1,023063903
<i>Cldn14</i>	0,659405245	0,932682123	1,081570762	1,129999452	1,142112536
<i>Morn1</i>	0,670756028	0,938808413	1,023859448	1,120449641	1,174189964
<i>Dctn2</i>	0,67535303	0,938437003	0,949640409	1,0916646	1,168626532
<i>Aff3</i>	0,658826465	0,965208466	0,987410555	1,058118374	1,196965635
<i>Pear1</i>	0,769209439	0,841922209	0,915766662	1,127598215	1,135072593
<i>Cnnm3</i>	0,758671016	0,812315623	1,023251713	1,098859523	1,127224131
<i>Hbp1</i>	0,521164034	0,837205707	1,004213077	1,127941127	1,055813505
<i>Gpsm2</i>	0,579713699	0,847626059	1,010006398	1,034371655	1,022121882
<i>Ppp2r4</i>	0,599432991	0,835991104	0,902378481	1,087834196	1,12942157
<i>Ubr2</i>	0,557684107	0,807387263	0,927489136	1,042190478	1,147802827
<i>1110059E24Rik</i>	0,625595472	0,772991998	0,907324487	1,047352118	1,086832833
<i>Ndufa13</i>	0,494036454	0,707867973	1,02748373	0,969057279	1,092312789
<i>Sdhd</i>	0,545607054	0,698912985	0,904763721	0,990039513	1,114286002
<i>Pin1</i>	0,572695809	0,724676245	1,014614424	0,976860691	1,197295501
<i>Mlycd</i>	0,581764344	0,700942727	0,980729321	0,913623585	1,205971772
<i>Nhlrc3</i>	0,548628081	0,708286382	0,961080988	0,915199948	1,077525094
<i>Nudt9</i>	0,547362806	0,687443035	0,955579999	0,876456417	1,111304895
<i>4930555I21Rik</i>	0,495189318	0,692546003	0,958322805	0,857163594	1,114954215
<i>Tprkb</i>	0,516968529	0,67184523	0,919295453	0,83783437	1,118230529
<i>Nucks1</i>	0,597178719	0,618764833	0,899682051	0,854780036	1,101086324
<i>Gmnn</i>	0,608335146	0,591412377	0,895536531	0,942796029	1,1762846
<i>Zfp46</i>	0,643334252	0,58238851	0,955673712	1,033629908	1,149423224
<i>Tnfrsf26</i>	0,578698795	0,665969228	0,804716477	1,034713457	1,227945129
<i>4933421O10Rik</i>	0,595284648	0,649997181	0,776491976	1,061415969	1,174683423
<i>Prkaa1</i>	0,39074463	0,842447615	1,035398355	0,977126209	1,276184945
<i>Mtmr3</i>	0,346110232	0,83871491	1,01617476	0,962503662	1,225114945
<i>Dhx9</i>	0,396588041	0,805199849	1,068266349	1,043339272	1,267375782
<i>Pias1</i>	0,404584952	0,84728118	1,111668875	1,015743213	1,256364292
<i>Ube2l3</i>	0,360324151	0,762393524	1,071821097	1,01573664	1,33190004

<i>Eps15l1</i>	0,418431511	0,734002923	1,027700147	1,02096669	1,301950336
<i>Ip6k1</i>	0,39627682	0,837872304	1,073119578	1,049200826	1,398295705
<i>Clk2</i>	0,480437057	0,910549104	1,014799386	0,989771926	1,389705595
<i>Slc10a1</i>	0,494063483	0,852321961	1,042469157	1,160047364	1,239990751
<i>Fkbp3</i>	0,504646495	0,832250513	1,123104471	1,145921269	1,300087418
<i>Myst2</i>	0,431027585	0,872322933	1,068978929	1,064767622	1,271448883
<i>Eif3d</i>	0,451926956	0,930473401	1,069762865	1,05147919	1,299891791
<i>Trim26</i>	0,439897439	0,890664668	1,127876092	1,14766598	1,202845944
<i>Dido1</i>	0,424399284	0,851639495	1,14992676	1,113410632	1,23257971
<i>Tnks</i>	0,384556464	0,900942885	1,138688165	1,125107812	1,238298603
<i>Pigm</i>	0,447854366	0,865320878	1,161098295	1,182822652	1,243995646
<i>Adar</i>	0,50124133	0,902306177	1,199781143	1,113145162	1,248609359
<i>Dbnl</i>	0,543142477	0,767335019	0,903864754	1,110537713	1,332919173
<i>Sf3a2</i>	0,531245034	0,827538836	0,913568564	1,108847587	1,335264228
<i>D830031N03Rik</i>	0,504830382	0,747951092	1,003197972	1,056344283	1,334445298
<i>Rrp1b</i>	0,471665569	0,857430531	0,891810019	1,077929344	1,255171829
<i>Orm2</i>	0,436819332	0,778838092	0,933083869	1,15324674	1,287887994
<i>Krr1</i>	0,440168799	0,803342669	0,882149244	1,146143868	1,326021223
<i>Lonp1</i>	0,362775878	0,756900006	0,911260724	1,1926039	1,272008789
<i>Taf9</i>	0,542125214	0,865890257	1,132804147	0,90905746	1,322011673
<i>Prpf4b</i>	0,522073129	0,876382771	1,089573871	0,862535372	1,27764634
<i>Cacybp</i>	0,550249005	0,752542062	1,125688254	0,93017654	1,221407685
<i>Stat4</i>	0,579755095	0,842650612	0,989589842	0,957120818	1,337589587
<i>Xpnpep1</i>	0,502743909	0,836814772	0,96283231	0,978377825	1,253996298
<i>Nfrkb</i>	0,536279728	0,863684228	1,073944435	1,028596148	1,289152882
<i>Trim27</i>	0,52784294	0,830548411	1,049087708	1,011621273	1,335336706
<i>Necap2</i>	0,684902871	0,886875744	0,98971024	1,007957601	1,269306543
<i>Stat2</i>	0,663544349	0,931032509	0,989176355	1,026579317	1,264634678
<i>Extl1</i>	0,654525715	0,90860587	1,021744352	1,067289967	1,223834683
<i>Plekhh2</i>	0,60469605	0,920150871	1,010874782	1,069254318	1,15616672
<i>Dync1li1</i>	0,560302189	0,895008415	1,005877151	1,08588108	1,220720948
<i>Wash</i>	0,650986873	0,808186803	1,056570292	1,023370699	1,241194683
<i>Hadh</i>	0,609374253	0,829861612	1,033516362	0,940579671	1,244495667
<i>Mdm4</i>	0,624569378	0,79106814	0,960342711	0,995900733	1,15852188
<i>Clcn4-2</i>	0,624192408	0,832099863	1,026528539	0,991486607	1,130263032
<i>Sqstm1</i>	0,262586878	0,637795868	0,918288353	0,727899441	1,000565786
<i>Fam13b</i>	0,273127434	0,64270107	0,982099386	0,770518026	1,045885274
<i>Timm23</i>	0,168479402	0,589982994	0,898845835	0,783573582	1,077378935
<i>Otud4</i>	0,235938737	0,598072049	0,897624841	0,776674008	1,037083463
<i>Trit1</i>	0,292836535	0,58938152	0,854604971	0,662763635	1,028670808
<i>Car15</i>	0,324506765	0,539586996	0,854840156	0,722305594	1,083981038
<i>Med12</i>	0,217918047	0,748850924	0,915850719	0,655746278	1,000563759
<i>Itgb1bp1</i>	0,22063468	0,747592971	0,940222855	0,645954305	1,047205539
<i>Gabpb1</i>	0,237599296	0,733864449	0,899265196	0,730658146	1,041756065
<i>Dnajb6</i>	0,236991098	0,671904567	0,885338272	0,840590692	1,156525962
<i>9030617003Rik</i>	0,287895976	0,739391488	0,869882271	0,735675125	1,175053784
<i>Pfdn2</i>	0,286150346	0,761372465	0,785398873	0,773004998	1,242485399
<i>Wdr4</i>	0,294267804	0,687325036	0,747307838	0,778107722	1,198470275
<i>Naa16</i>	0,192921308	0,720065866	0,828216827	0,892976397	1,085627885
<i>Rpe</i>	0,185214832	0,711062272	0,820296651	0,81621815	1,105417505
<i>Zfp60</i>	0,176836934	0,660499929	0,882594499	0,834726561	1,050190283

<i>Zfp868</i>	0,140978087	0,684000102	0,840675524	0,806231301	1,0666615
<i>Utrn</i>	0,267362597	0,727326221	0,822855649	0,79424232	1,0093188
<i>Med26</i>	0,25485659	0,681301534	0,899766117	0,823065625	1,016773018
<i>Ank</i>	0,252756079	0,668220405	0,754367972	0,895476803	1,004713911
<i>Scap</i>	0,226776989	0,735900448	0,726936789	0,826664802	1,065690945
<i>Rnf115</i>	0,189741527	0,560469166	0,77107957	0,800529574	1,044452151
<i>2310004124Rik</i>	0,257775072	0,545909574	0,741422681	0,874195284	1,012072816
<i>Eif3e</i>	0,033190995	0,686467106	0,948542344	0,904025409	1,075144961
<i>Cdk13</i>	0,058854937	0,635365167	0,919968577	0,876438289	1,009903504
<i>Wnk1</i>	0,019876514	0,593133056	0,981126578	0,844060628	1,067078765
<i>Ssb</i>	-0,047453968	0,744168356	1,001806536	0,808064933	1,002507692
<i>Zfx</i>	0,056337925	0,746237207	0,978177995	0,785606139	1,086942628
<i>Zfp958</i>	-0,050026123	0,753868231	0,856218761	0,68859759	1,006473062
<i>Ssbp1</i>	-0,162312902	0,669122227	0,788152225	0,704917711	1,057353515
<i>Ankrd61</i>	0,135257115	0,655202487	0,84745199	0,783401428	1,159360109
<i>Ociad1</i>	0,126610405	0,698639322	0,806635953	0,828057047	1,162098553
<i>Nol9</i>	0,119358811	0,689811647	0,875490729	0,798906678	1,237268175
<i>Eif3a</i>	-0,072257816	0,647681972	0,846389359	0,803034605	1,195549053
<i>Uqcrfs1</i>	0,02439891	0,636421992	0,824978159	0,776196674	1,226244993
<i>Ythdf3</i>	0,024747623	0,637220594	0,79756186	0,852109162	1,056651705
<i>Rbm33</i>	0,098486955	0,640456248	0,793384683	0,902041989	1,05059942
<i>Zcchc9</i>	0,103491304	0,647403826	0,777777095	0,794767157	1,067019823
<i>Zbtb11</i>	0,081136593	0,686334535	0,723958394	0,90821207	1,116705975
<i>Pcbp2</i>	0,13413219	0,705250337	0,769531908	0,883882402	1,107423842
<i>Cyp20a1</i>	0,057762653	0,692062674	1,021378285	0,796934739	1,174777416
<i>Sfrp2</i>	0,05623765	0,759497958	1,015221163	0,827499856	1,218772204
<i>Slc2a4rg-ps</i>	-0,030618375	0,593640603	1,062741333	0,907083586	1,196700497
<i>Rdh14</i>	0,160004592	0,697653882	1,07606542	0,889809181	1,066771002
<i>Ndufa8</i>	0,150041813	0,624988911	1,08722486	0,964530246	1,130601814
<i>Zfp91</i>	0,12156254	0,613870233	1,002646862	0,922667464	1,128506891
<i>U05342</i>	0,118716367	0,621206789	0,958915656	0,901340586	1,084835994
<i>Ggps1</i>	0,184504411	0,6536397	0,966272491	0,886696807	1,123441319
<i>Gm16853</i>	0,16958951	0,594202996	1,1545018	0,770890158	1,18432861
<i>Zfp566</i>	0,172466398	0,62581123	1,040361484	0,723809037	1,250852085
<i>Ppat</i>	0,061497136	0,594085263	0,992859583	0,718377895	1,158097566
<i>Chst2</i>	0,118250422	0,871202625	0,9088917	0,914141421	1,165450896
<i>Ptpn2</i>	0,197936497	0,843455353	0,901936761	0,969908373	1,177299364
<i>Ube2z</i>	0,024021331	0,825874841	0,87855596	0,91607725	1,148357967
<i>Dcun1d3</i>	0,107458593	0,857442496	0,851907223	0,975761506	1,033822398
<i>Ndufv2</i>	0,126922994	0,85763099	0,792482972	0,948748154	1,03811859
<i>1810031K17Rik</i>	0,177615743	0,895609342	0,833519482	1,00733971	1,022856955
<i>Gpr87</i>	0,132055132	0,779340226	0,796759593	0,83988766	1,040801845
<i>Fam108b</i>	0,101836343	0,747206378	0,808209634	0,856252245	1,047046706
<i>Pspc1</i>	0,118741965	0,7596307	0,859113222	0,902507459	1,087129954
<i>9330179D12Rik</i>	0,152288273	0,736591628	0,915006411	0,800927911	1,062305176
<i>Nptn</i>	0,105354365	0,700155259	0,936541337	0,826933378	1,016969917
<i>A430084P05Rik</i>	0,136213862	0,819567706	0,751376808	0,794628724	1,074730502
<i>Actr6</i>	0,194911858	0,822316509	0,772270351	0,808619201	1,021874763
<i>Sft2d1</i>	0,215820423	0,807237877	0,82645279	0,860932445	1,130751129
<i>Strn</i>	0,194068397	0,785842118	0,850765798	0,812106682	1,132262686
<i>Setx</i>	0,036294899	0,766648375	0,846358872	1,103450398	1,103043811

<i>Seh1l</i>	0,063627081	0,860954399	0,80123238	1,080756765	1,002035395
<i>Elavl1</i>	0,094894445	0,745197698	0,882279587	0,979339561	1,021103468
<i>5830415F09Rik</i>	0,028736928	0,692449116	0,907735721	1,034448779	0,936697559
<i>Arf4</i>	-0,035673397	0,891029007	0,943039175	0,81855973	1,036557233
<i>Gnpnat1</i>	0,025640455	0,885423611	1,059720132	0,794176588	0,965953592
<i>Gm9895</i>	0,240738742	0,472975842	1,018672126	0,795182584	0,743690103
<i>Dolk</i>	0,276432771	0,483693485	1,089305252	0,824796937	0,934595396
<i>Acadvl</i>	0,488104068	0,508643652	1,023349223	0,851785025	0,941215422
<i>Eif3l</i>	0,303044769	0,4236025	0,862411419	0,898994573	1,051660532
<i>1700020D05Rik</i>	0,344922081	0,44128053	0,905573396	1,01999538	1,045345857
<i>Cox5a</i>	0,239519013	0,393101991	1,011790432	0,956826615	1,129423519
<i>Ogfr</i>	0,333100985	0,929042373	0,58126573	0,966626445	1,152904041
<i>Ppp1r11</i>	0,409030932	0,956916342	0,639442562	0,93620222	1,051567916
<i>Chrnbl</i>	0,241600006	0,910270122	0,534353902	1,027970855	1,013623443
<i>Grsf1</i>	0,197036327	0,939560014	0,658586807	0,817063989	1,098749081
<i>C530005A16Rik</i>	0,225923788	0,875972961	0,713572679	0,817934826	1,054962002
<i>Slu7</i>	0,110332388	0,790963418	0,66325097	0,819743798	1,104658964
<i>Ghrl</i>	0,223737666	0,911176592	0,793405196	0,972203037	1,213667939
<i>Slain2</i>	0,251865061	0,887406582	0,797853813	1,042181699	1,162047395
<i>Zfp384</i>	0,308125842	0,893963629	0,885393645	0,972037125	1,195332187
<i>Lrp6</i>	0,274666321	0,875345098	0,906308364	1,072624521	1,09152627
<i>Atxn7</i>	0,279472027	0,867882688	0,904484086	1,036003761	1,065159205
<i>Esyt2</i>	0,266808429	0,820005068	0,873483302	1,017337053	1,095125561
<i>4930549G23Rik</i>	0,224224645	0,869064104	0,823732305	1,099317282	1,075147863
<i>Gmpr2</i>	0,258112451	0,777335655	0,707350775	1,021468976	1,011795469
<i>Eif2d</i>	0,22148272	0,855647962	0,69564299	1,088240739	1,053280762
<i>Osbpl9</i>	0,283945674	0,815552468	0,781345342	1,10157658	0,978842358
<i>Psmg2</i>	0,253561822	0,812231042	0,80347365	1,065718109	1,027492132
<i>Pgd</i>	0,425414825	0,690616531	0,734824802	1,064791715	1,113449388
<i>Nipal3</i>	0,435845338	0,661896023	0,702924133	1,010375303	1,162169404
<i>Tti2</i>	0,479264494	0,704806751	0,61657981	0,983528701	1,18355673
<i>Cyp2s1</i>	0,403711967	0,623772298	0,590592777	1,077489458	1,070464768
<i>Mrpl41</i>	0,506284599	0,587745215	0,602627201	1,073964215	1,049835403
<i>Gatad1</i>	0,38465603	0,765247949	0,615485223	1,001148731	0,979627827
<i>Ssh1</i>	0,482723141	0,773225667	0,570591837	1,023578565	0,971822247
<i>Prmt6</i>	0,334742707	0,622407917	0,746846016	1,158234668	0,988202499
<i>Rnf123</i>	0,40617597	0,609196179	0,785630179	1,048368939	1,00795548
<i>Pofut2</i>	0,485158891	0,667129627	0,695872434	1,151664265	0,925495862
<i>Mlx</i>	0,315851725	0,704835413	0,704576311	1,019001182	0,91156451
<i>Acbd3</i>	0,390857085	0,706583773	0,733327124	1,002617289	0,900633955
<i>Ogdh</i>	0,408037872	0,727934176	0,85171804	0,836030851	1,089113834
<i>Smc3</i>	0,392853976	0,75388648	0,853445357	0,799968223	1,069195137
<i>Trappc10</i>	0,424700138	0,769722474	0,831250684	0,860929725	1,030244759
<i>P4ha1</i>	0,400557998	0,730622484	0,905806246	0,85283832	1,000713738
<i>Adipor1</i>	0,422280453	0,728665209	0,943257984	0,887089282	1,024024516
<i>Crcp</i>	0,418528781	0,697007489	0,937562595	0,848395792	1,060596265
<i>Ttc15</i>	0,5033271	0,689481259	0,804454475	0,822403685	1,0037364
<i>Ppargc1b</i>	0,500257363	0,70984444	0,876284314	0,75482106	1,035971566
<i>Kansl3</i>	0,341650602	0,736038844	0,868577194	0,739245447	1,032432927
<i>1110034A24Rik</i>	0,402729981	0,72627299	0,869707437	0,702114084	1,040031968
<i>Zfp828</i>	0,370432562	0,664223472	0,787922062	0,858673728	1,044458806

9530027J09Rik	0,383870143	0,697258805	0,757388573	0,831879525	1,040946511
Numa1	0,338605846	0,684056304	0,720049811	0,869907014	1,115458404
Lsm11	0,373878027	0,746867741	0,751306095	0,790959996	1,126299973
Baz1a	0,410502508	0,718944323	0,750252767	0,761851548	1,11752054
Clpp	0,508622394	0,686292013	0,732300608	0,888779762	1,109909393
Kdelr2	0,430213399	0,647698731	0,739118389	0,868709885	1,176318761
Nudc	0,369107701	0,58719988	0,814583246	0,887937023	1,15619901
Scp2	0,382432067	0,641925797	0,829714764	0,869212927	1,163803285
Crim1	0,337514878	0,596210558	0,913124565	0,857436448	1,140464889
Mocs2	0,376511707	0,672033407	0,827918685	0,896501031	1,101699336
Exosc10	0,370419532	0,651180073	0,817097744	0,871978332	1,105584574
Surf2	0,353497829	0,659422252	0,904173876	0,894307424	1,06997335
Nub1	0,362895982	0,546954382	0,856474977	0,827556299	1,032885858
Rpain	0,430010492	0,587490723	0,908367588	0,792163415	1,130821595
Ywhaq	0,391685454	0,516920283	0,896724355	0,928826716	1,117623996
Pigw	0,349569805	0,543919314	0,910198821	0,929167327	1,121630336
Fam71f1	0,378082934	0,570905741	0,959811575	0,956036489	1,026300121
Azin1	0,249491291	0,682620779	0,909393579	1,027054629	0,85409223
Ntf5	0,426671435	0,64442944	0,892303223	1,043316264	0,872239182
Cdc5l	0,475688213	0,809234613	0,886056126	1,000489778	0,925913194
Cdr2	0,475388633	0,719683725	0,803249832	1,027406435	0,945599327
Fam60a	0,364381741	0,646623075	0,868978313	1,028350108	1,138996477
Reck	0,34384198	0,640002128	0,842934992	0,989181115	1,066416739
Zfp51	0,283115283	0,691051726	0,818404148	1,003639175	1,121454432
Hadhb	0,233972834	0,665918213	0,923091184	0,97270247	1,125855432
4933434E20Rik	0,262170331	0,63823159	0,804772027	0,991594402	1,218693747
Cpsf3l	0,215264031	0,6990025	0,816399057	1,011032969	1,206599999
Usp48	0,375107068	0,669600814	0,885391657	0,882249853	1,252575239
Ttf1	0,376734536	0,738346225	0,819112988	0,974695426	1,238526264
Gpcpd1	0,411809152	0,572000047	0,83315924	0,991461687	1,208597519
Zbtb39	0,357073511	0,613898005	0,987154085	1,030650554	1,261287263
Rhebl1	0,366472102	0,659535075	1,001011237	0,966209509	1,235822496
Naa30	0,274826926	0,681245813	0,994344889	1,029009748	1,269958741
Med18	0,3771644	0,653933045	1,038756937	0,948248411	1,145582396
Zyg11b	0,371607048	0,833167057	0,949802877	1,0143205	1,228034701
Akap8l	0,369738418	0,793447998	0,938745785	1,015974761	1,270721892
Atp2a2	0,360817093	0,774505129	0,938511697	0,936683505	1,24879163
1700026L06Rik	0,366641354	0,744575373	0,922079531	1,07499534	1,209949097
Psmc2	0,281667044	0,794241805	1,031396629	0,95913413	1,213497768
Ddx42	0,239722391	0,796250024	1,018053226	0,913324564	1,190961209
Ogt	0,242653429	0,883333123	1,07400364	0,916161781	1,215808932
Crkl	0,263485872	0,894853366	0,960030481	0,884669423	1,28520876
Uqcrc1	0,229977559	0,928504531	0,96095256	0,962525144	1,236313416
Rapgef2	0,216958398	0,774406743	0,95826242	0,99902415	1,310296575
Sec13	0,209362982	0,762069611	0,984103867	1,043825319	1,240950774
Wdr37	0,115732091	0,730036035	0,951351621	0,961324533	1,280353423
Atg14	0,155416769	0,812790117	0,888702168	0,968555113	1,239367321
Mtfr1	0,160455742	0,798046485	0,888033038	1,043496272	1,231785877
Axin1	0,222225845	0,812034283	1,159070903	1,083114478	1,258119162
Shfm1	0,176030244	0,849856811	1,106088208	1,144796694	1,319312123
Rad23b	0,225693235	0,792040797	1,103923337	1,036682736	1,376759637

<i>Shoc2</i>	0,159619011	0,817219058	1,050772246	1,037623739	1,242670895
<i>Trim33</i>	0,205236879	0,756341141	1,062193234	1,084023278	1,300532865
<i>Arih2</i>	0,249492648	0,84436272	0,961575162	1,157095929	1,263908286
<i>Tnks2</i>	0,26469491	0,854889184	0,978109415	1,145412327	1,228784335
<i>Fam19a3</i>	0,271043935	0,823632856	0,929684863	1,07674239	1,230806037
<i>Naa15</i>	0,275030083	0,936066497	1,006903412	1,06963444	1,297023215
<i>Socs4</i>	0,294479541	0,917447718	0,990253616	1,115487653	1,312848101
<i>Sfr1</i>	-0,012243258	0,824500247	1,051011079	1,031640915	1,422165459
<i>Nxf1</i>	0,04216203	0,879270886	1,051883777	1,008452807	1,430424509
<i>Tle4</i>	-0,037192211	0,907312271	1,082968341	1,066495933	1,428646195
<i>Cd53</i>	-0,459056202	0,886506785	1,194537569	1,039089056	1,322666191
<i>B630005N14Rik</i>	-0,066451456	0,971659529	1,067349193	1,039563788	1,302362493
<i>Pold4</i>	0,091881098	0,99809451	1,000699333	1,108052085	1,323455894
<i>Smc6</i>	0,000527529	1,065465208	1,042418504	1,246344161	1,242314548
<i>Inpp4b</i>	-0,124317579	1,115122588	0,967625861	1,228656144	1,060900339
<i>Usp38</i>	0,116109339	0,995442517	1,09246583	1,160532961	1,118903199
<i>1110020A21Rik</i>	0,124119323	0,999799822	1,148356215	1,124932923	1,08595178
<i>Xpo1</i>	0,095595817	0,884840888	0,995058651	1,057086334	1,15144604
<i>Crebbp</i>	0,114364954	0,885531859	0,987715667	0,970275321	1,122842877
<i>Rasa1</i>	-0,105085716	0,892410417	0,974163812	0,990019346	1,146011931
<i>Sept7</i>	-0,016653665	0,898045671	1,026776802	1,097409685	1,122096253
<i>Plekha1</i>	0,034986339	0,897831184	0,984084415	1,134767041	1,104128812
<i>Gm13293</i>	-0,009135995	0,908880431	0,998042061	1,062480936	1,029313309
<i>Galc</i>	0,080624726	1,057006849	0,984563212	0,976535867	1,029646362
<i>4930573O16Rik</i>	-0,082551987	1,059224772	0,923476736	1,024557655	1,031117249
<i>1700110K17Rik</i>	0,045006224	1,159765869	1,133780449	0,933037666	1,205804447
<i>Tmem168</i>	0,073051932	1,040927134	0,987633625	0,917679278	1,175060245
<i>Tpm4</i>	0,076129463	0,750036817	1,014672499	1,122462367	1,336948914
<i>Fam103a1</i>	0,049518139	0,668688647	1,086590185	1,052266452	1,284875281
<i>Foxp3</i>	0,117265626	0,630303103	1,100587316	1,151154197	1,404226218
<i>Hnrnph2</i>	0,069826116	0,591465522	1,021083359	1,045220877	1,391521204
<i>Atp11b</i>	0,144787219	0,594375108	0,925996889	1,076436865	1,427885099
<i>Tatdn2</i>	0,004503102	0,691064785	1,082540853	1,382486476	1,445962795
<i>Rps2</i>	0,094237946	0,602612724	1,07677719	1,20849134	1,149462499
<i>Snhg1</i>	0,228482032	0,592957553	0,974248992	1,100098868	1,146895835
<i>Wac</i>	-0,013220658	0,819733898	1,027931994	1,080937474	1,155462676
<i>Dnaja2</i>	0,038795774	0,800268246	1,049799379	1,131022506	1,173388809
<i>Rcbtb1</i>	0,018683915	0,766967775	0,93348522	1,202382047	1,249851872
<i>Ndufa2</i>	-0,007277785	0,670760917	1,498347193	0,962546937	0,996923556
<i>Zbtb33</i>	0,037620645	0,96179871	1,035483582	0,954295345	0,838898773
<i>Cd200</i>	0,146296722	1,049574621	1,126000545	1,041939121	0,874997871
<i>Pfkfb2</i>	0,108392338	1,068379714	1,043530997	0,830318939	0,741275676
<i>Rsu1</i>	0,170413964	1,204428623	0,900868521	1,038015253	0,783121372
<i>Rcn2</i>	0,208146866	1,173474041	0,942803196	0,981625376	0,988692118
<i>8430436N08Rik</i>	-0,059761218	1,252211829	0,868688162	0,977645436	0,568727618
<i>Zfp619</i>	-0,001804528	0,834479689	1,019972763	0,582908009	0,691505678
<i>4930404I05Rik</i>	-0,02872643	1,032978614	0,690744295	0,838032707	0,911947201
<i>Zfp187</i>	0,087701652	1,029195581	0,780820745	1,055063382	0,882418609
<i>Sowahc</i>	0,25247866	1,22001751	0,655498484	0,910132648	1,032598216
<i>Xlra4a</i>	-0,000599646	1,070994442	0,448704542	0,868077418	0,691752193
<i>3110040N11Rik</i>	0,024473102	1,004479396	0,496112282	0,817229508	0,821291498

<i>Gpx2-ps1</i>	-0,258243753	0,429114363	0,628585522	1,384554927	1,231129834
<i>Foxe1</i>	-0,008525905	0,235886646	0,526685003	1,429305146	1,004411329
<i>Rps16</i>	-0,102338284	0,526301681	0,658239247	1,797910935	1,157477616
<i>9930111J21Rik1</i>	0,056701482	0,707320832	0,576674049	1,443961648	1,642464499
<i>1810006K21Rik</i>	-0,060652082	0,784641657	0,408466982	1,437271386	1,226078123
<i>Pdia2</i>	0,033902372	0,236606682	1,04002928	1,127291623	1,386964389
<i>Pydc4</i>	-0,594364347	0,298681314	0,945436015	0,992385504	1,109503915
<i>Xcl1</i>	0,124789852	0,453698168	0,855637099	0,933276992	1,429957981
<i>H60b</i>	-0,063954304	0,43314789	0,860155092	0,988666684	1,436066881
<i>Orm3</i>	0,035052989	0,348445718	0,705035082	1,05339119	1,369557477
<i>Usp28</i>	0,184781656	0,443946143	0,578057496	1,011976869	1,357332604
<i>Sele</i>	0,011611509	0,449427389	0,497374763	1,150626538	1,500920029
<i>Atp5g3</i>	0,18881503	0,570449378	0,787389966	1,072878934	0,850382665
<i>Apol9a</i>	0,109795924	0,584778112	0,755050699	1,011285553	0,856088303
<i>2310009B15Rik</i>	0,258468424	0,46474055	0,766470891	1,139364899	0,830097162
<i>Fcgr3</i>	0,027706418	0,437208682	0,593243015	1,213533244	0,872802107
<i>Mrm1</i>	0,202839307	0,249141897	0,714629958	1,001888684	0,950015801
<i>Cox7c</i>	0,107579843	0,23451043	0,607152384	1,056485024	0,969585103
<i>Zfp655</i>	0,124859018	0,601856343	0,532173555	0,919839775	1,049175263
<i>Nudt19</i>	0,127731677	0,553867484	0,565793471	0,815641848	1,046955559
<i>Smchd1</i>	0,052132014	0,629821446	0,630228954	0,88769147	1,028358584
<i>Jhdm1d</i>	0,033044486	0,556748071	0,530010668	0,995740171	1,098560476
<i>Khynyn</i>	0,239565888	0,560515896	0,516559378	1,057266805	0,981457731
<i>Cpsf3</i>	0,196683265	0,534518893	0,509079935	1,018326398	0,98637204
<i>Kif1b</i>	0,161445794	0,494752922	0,517759874	1,018172381	1,056283864
<i>Mettl3</i>	0,209779683	0,621520491	0,698912	0,970375592	1,093781096
<i>Dock2</i>	0,271372592	0,629523762	0,75010216	0,958032995	1,143658263
<i>Trmt61a</i>	0,343458284	0,561939503	0,624566156	0,945430471	1,128667746
<i>Eif3c</i>	0,182231978	0,528104701	0,664010576	0,928920979	1,034931682
<i>Glud1</i>	0,223034657	0,504112324	0,650973856	0,965235337	1,060767403
<i>Pglyrp1</i>	0,646289554	0,990729549	0,69491797	1,036193983	1,223112275
<i>2310011J03Rik</i>	0,700947771	1,108742591	0,735046733	0,967596219	1,269410155
<i>Polr3d</i>	0,558230299	0,979784659	0,830881415	1,073422088	1,229101486
<i>Spry4</i>	0,564904133	1,109684365	0,83304539	1,071534999	1,26471801
<i>Adprh</i>	0,511193568	1,152832425	0,845108508	1,074118217	1,468922778
<i>Gm6537</i>	0,481656632	0,988357874	0,686054256	1,032155552	1,464626832
<i>Rbm43</i>	0,535059336	0,847038753	0,659817863	1,078081242	1,407001343
<i>Chmp1a</i>	0,542987759	0,858672914	0,689706285	1,187827552	1,322925761
<i>1110032F04Rik</i>	0,565916132	1,067084901	0,555388065	1,160053025	1,314968059
<i>Mrpl49</i>	0,671002068	0,930332433	0,769747363	1,184765674	1,310717186
<i>Apobr</i>	0,683977308	0,922689067	0,788680453	1,17044013	1,217843898
<i>Al848285</i>	0,785210406	0,931841583	0,627728607	1,164665627	1,331254876
<i>Ccdc126</i>	0,688879234	1,062959568	0,844588949	1,294301283	1,085133483
<i>Pla2g1b</i>	0,675150622	1,022568094	0,895704604	1,219241898	1,135607197
<i>BC013712</i>	0,607611953	0,973249495	0,816323623	1,221946397	1,151281139
<i>Al316807</i>	0,807715043	1,095113928	0,907794084	1,167017458	1,085486887
<i>Gypc</i>	0,746806857	1,168029569	0,920952816	1,247588343	1,15643506
<i>Ticam1</i>	0,846069122	1,140676325	0,805013375	1,127920791	1,369498469
<i>Gpx3</i>	0,858377441	1,090385088	0,792770325	1,308642721	1,394790641
<i>1700096K18Rik</i>	0,836895756	0,917132136	0,847726425	1,199625088	1,441912256
<i>Cdc7</i>	0,698441261	0,796372814	0,760732726	1,219793969	0,896515729

2210039B01Rik	0,602934913	0,844245405	0,825621232	1,190121466	0,839218939
Adnp2	0,643464444	0,85364238	0,811017037	1,072568819	0,976431812
Ppapdc1b	0,641262771	0,805414139	0,771834248	1,13760454	1,023720844
Plekhg5	0,63405869	0,863417203	0,715755867	1,118895154	0,940752449
Gpr180	0,716170444	0,82081823	0,859908183	1,047838736	0,951504198
Tchp	0,663308541	0,754171457	0,851663658	1,039869102	0,935485717
Clptm1	0,637653047	0,879845245	0,927717988	1,087330099	0,971479629
H47	0,645919253	0,837728064	0,908844177	1,100922887	0,94494375
Lyrn5	0,61096372	0,866084039	0,871999689	1,113900217	0,945014734
Oas2	0,535995573	0,718431062	0,739124092	1,305228199	1,036046967
Lats2	0,621268576	0,708787335	0,7243103	1,242201403	1,091814625
Ntn5	0,651645694	0,735373678	0,814426926	1,28421445	1,06402149
Comtd1	0,682197961	0,819854823	0,831158342	1,313832198	1,073693065
Rab20	0,750990657	0,817035358	0,766175913	1,02068289	1,069533869
Ttc21a	0,71437543	0,813874412	0,794002909	0,971720579	1,030076434
Sat1	0,723787397	0,834397649	0,676191621	1,022627484	1,140464525
Deaf1	0,727195072	0,824740715	0,868768161	0,943417596	1,098024869
Pex11c	0,697142571	0,766879413	0,847168754	0,933510143	1,121369297
Spice1	0,807367769	0,772489402	0,823638682	1,005946513	1,163486135
Slc36a1	0,650639731	0,69584094	0,830506412	0,938299062	1,029247118
BC031361	0,647469676	0,785283576	0,812364171	0,964905029	1,054837651
Eci1	0,742273964	0,686326653	0,759263254	1,039521334	0,951347557
Fads6	0,77946781	0,857977359	0,930592006	1,021903366	0,950778292
Ramp3	0,847013938	0,873519819	0,933325308	1,012432036	0,973175334
Zfx2	0,822893425	0,772231564	0,922095723	0,930201299	1,013571244
Cnpy3	0,767866397	0,793629855	0,888498258	0,941698498	1,032240094
Prc1	0,922726345	0,788989063	0,886001599	1,113082041	0,990494502
Snhg4	0,844118796	0,830986335	0,8879533	1,0908862	0,95004464
H2-M3	0,447165998	0,619311152	0,964228297	1,173396451	1,635419162
Golm1	0,359062588	0,637292439	0,787124851	1,253885111	1,696290601
Sf3b4	0,716442399	0,692063493	0,932140849	1,231391952	1,547024433
Ap3m2	0,654970509	0,769101041	0,908547971	1,372995444	1,63759153
Ctsa	0,659146434	0,572720216	0,982789261	1,359346882	1,613301209
Rsl1d1	0,358571164	0,68371362	1,073100995	1,270988869	1,360037727
Ms4a6c	0,429737641	0,677573916	1,012104147	1,223166658	1,412434785
Prss50	0,379731783	0,778333821	1,113743063	1,309915365	1,543434914
Ddx21	0,343976028	0,704620339	1,084335582	1,233178675	1,542181818
Rae1	0,407455912	0,801364837	0,982382298	1,228300864	1,545712599
Arhgef18	0,317021114	0,797367821	0,883603468	1,267096123	1,544180434
2310014L17Rik	0,492794305	0,563117183	0,826589704	1,44253846	1,253742369
Gm9047	0,572928879	0,522269973	0,838483766	1,382520395	1,287555334
Tmed4	0,657000012	0,598771896	0,883612659	1,338347985	1,376427801
Fam65c	0,481715416	0,500082574	0,822947006	1,269006839	1,289480432
Nip7	0,392308103	0,494686925	0,761764788	1,150656518	1,345274405
Otop3	0,378284759	0,695872282	0,707706903	1,284116834	1,214447231
Madd	0,227321228	0,541604998	0,743273886	1,164380857	1,297622066
Lrrc61	0,281555314	0,450206016	0,769545361	1,073849613	1,233540966
Polr2j	0,629295217	0,591466965	0,746594895	1,044078978	1,452530979
BC031181	0,585845474	0,680238251	0,758162783	1,148075893	1,360120635
Tmem177	0,4209987	0,528841996	0,680140713	1,04317715	1,463987499
Hsh2d	0,493743769	0,642237376	0,842902108	1,158067342	1,285742695

<i>Vasn</i>	0,446837993	0,675211685	0,846692517	1,069202399	1,263167967
<i>Pa2g4</i>	0,526284651	0,577000117	0,885853602	1,026522028	1,365801649
<i>Bola3</i>	0,422182089	0,705553052	0,880353819	1,042706267	1,440474943
<i>E130102H24Rik</i>	0,473719175	0,792344803	0,806099253	1,013276192	1,423300004
<i>Exosc5</i>	0,631598201	0,601957104	0,997366646	0,913634284	1,357848187
<i>Eif6</i>	0,576311729	0,616732166	0,976314547	0,89309183	1,379060449
<i>Ap3d1</i>	0,564578202	0,673265242	1,015004031	0,915117759	1,29106943
<i>Sharpin</i>	0,636997946	0,528629279	1,064238179	0,976827818	1,386503945
<i>Sc4mol</i>	0,425068392	0,478353634	1,003699872	0,766297349	1,264464005
<i>Mir17hg</i>	0,541231734	0,487153132	1,004493795	0,891174139	1,227143078
<i>Vars</i>	0,625991046	0,755892367	0,980151544	0,758629683	1,470535798
<i>Tomm5</i>	0,573626513	0,695852053	0,988628238	0,75381768	1,38628823
<i>Syf2</i>	0,513106032	0,767703515	1,052766365	0,905099185	1,443475081
<i>Med30</i>	0,601050191	0,78471081	1,096624754	0,879599374	1,403790695
<i>Twistnb</i>	0,495217929	0,709905693	1,063525341	0,80751406	1,281135951
<i>Gm11696</i>	0,58375715	0,785438538	1,123986914	0,737924015	1,293728134
<i>Hras1</i>	0,632377503	0,553916925	1,105516481	0,753127383	1,417484666
<i>Fkbp4</i>	0,66660608	0,686655783	1,105133944	0,740412232	1,490805381
<i>2810422J05Rik</i>	0,738537443	0,586843494	0,870717285	0,570879055	1,327909528
<i>Zfp296</i>	0,816203568	0,674047962	0,940010127	0,568682937	1,324194359
<i>Rxra</i>	0,701657811	0,553412396	0,96221438	0,555599483	1,174034095
<i>Rrp12</i>	0,843152935	0,629550293	1,160407605	0,554677973	1,376984599
<i>Stac2</i>	0,770427669	0,576904607	1,178900539	0,73325027	1,289491589
<i>Arsa</i>	0,732580302	0,878343269	1,071800077	0,536207476	1,257581685
<i>Tnfsf10</i>	0,795868295	0,80032409	1,093460547	0,627119757	1,259586837
<i>Ap2a1</i>	0,697338063	0,737870186	1,092464308	0,645293735	1,241947908
<i>Slc25a44</i>	0,661080973	0,774056447	1,116672273	0,641936468	1,328442517
<i>Spock2</i>	0,714529693	0,65723224	1,063498211	0,583668059	1,077753699
<i>Kdm1b</i>	0,717679827	0,712946519	1,122548251	0,660597705	1,069441287
<i>Pou5f1</i>	0,774654834	0,676222997	1,185794469	0,606590751	1,197272236
<i>D330012F22Rik</i>	0,746079716	0,807812574	1,209112748	1,098976274	1,341541243
<i>Rusc1</i>	0,733491281	0,73899435	1,16621227	1,13465615	1,356483753
<i>Pam16</i>	0,665184273	0,826016928	1,149777103	0,991032046	1,402376359
<i>Tmem222</i>	0,727759661	0,800327194	1,159522109	1,023102396	1,389385225
<i>Slc26a11</i>	0,702009951	0,729884882	1,040263468	0,941857737	1,284377522
<i>Med20</i>	0,686081947	0,800915672	1,078436943	0,961942053	1,298794256
<i>Slc6a6</i>	0,753306901	0,822235965	1,128333842	0,909487157	1,266006206
<i>Vps37d</i>	0,817825651	0,780327763	1,132664096	0,936738018	1,255456333
<i>6430531B16Rik</i>	0,790469785	0,643716641	1,012260228	1,078590859	1,419609862
<i>Llg1</i>	0,864215385	0,624654385	1,019988167	1,024424539	1,374412667
<i>Ndufb9</i>	0,804012805	0,658746229	0,992988571	1,158833263	1,294689719
<i>Polr2f</i>	0,73409806	0,752004421	1,077651429	1,112751777	1,376351655
<i>Dpm2</i>	0,725913863	0,680324292	1,036439423	1,15808659	1,451320959
<i>Mri1</i>	0,802441991	0,798052854	0,923006905	1,017331502	1,385934689
<i>Fcer1g</i>	0,851125753	0,717357204	0,920208626	1,093799133	1,454968287
<i>Cln5</i>	0,56795394	0,667379393	0,974282483	1,061404274	1,311744133
<i>Ctu1</i>	0,601532157	0,638263257	0,926509161	1,11778326	1,291874847
<i>Amz1</i>	0,689601892	0,650390107	1,019615946	1,080360405	1,240494965
<i>Glo1</i>	0,685826263	0,765768843	1,001401117	1,033063352	1,375292622
<i>Rfxank</i>	0,61829759	0,695946524	0,91205504	1,057719525	1,4009434
<i>Cct8</i>	0,555705209	0,768362921	1,086146429	1,098122239	1,359892024

<i>Fkbp8</i>	0,543530627	0,816084705	1,048769351	1,123711154	1,364820457
<i>Ncl</i>	0,612822029	0,822187299	1,057753854	1,126066115	1,351293101
<i>Map2k2</i>	0,59433487	0,74239754	1,127465455	1,078751323	1,315243292
<i>Pknox1</i>	0,659493452	0,858326162	0,920272433	0,968317762	1,234609029
<i>Pcnxl3</i>	0,654305119	0,879557328	0,877223603	0,907666249	1,188667864
<i>Capns1</i>	0,630000426	0,883317618	0,936633649	0,861067457	1,299468266
<i>Chtf8</i>	0,720364652	0,907407555	0,832645555	0,946319356	1,328805007
<i>Z700038G22Rik</i>	0,752021572	0,95087654	0,885355001	0,902153712	1,324206236
<i>Tmbim4</i>	0,714804228	0,845105866	0,916015077	1,068467191	1,289639022
<i>Tanc1</i>	0,735808932	0,825655426	0,863086989	0,992670681	1,239957011
<i>Hcfc1r1</i>	0,653561451	0,974432418	0,821101448	1,062660536	1,424409322
<i>Atp6v1f</i>	0,614392011	0,79774866	0,853314089	1,025689389	1,486762368
<i>Polr3g</i>	0,755313531	0,752473971	1,032357245	0,929820004	1,161713162
<i>Muc1</i>	0,721858421	0,66765299	1,004069935	0,970643409	1,133666675
<i>Pink1</i>	0,694509401	0,706060863	0,945351342	0,954152163	1,214262284
<i>Surf4</i>	0,795465782	0,785493882	0,988590559	0,990138822	1,144536767
<i>Atad1</i>	0,810802459	0,786914849	0,951473536	0,918713321	1,109526858
<i>Sema4g</i>	0,786161742	0,80961601	1,036387926	0,761480143	1,068866894
<i>Acox1</i>	0,828485116	0,778459272	0,980779829	0,812984599	1,064090729
<i>Fbxl19</i>	0,821218372	0,693706466	1,043508326	0,826058185	1,16022203
<i>Slc25a33</i>	0,880042535	0,934459266	1,054015881	0,95212311	1,308875355
<i>Pigl</i>	0,942154197	0,938453045	1,115410089	0,954158719	1,28187812
<i>Zfp64</i>	0,85734422	0,940349227	1,076131972	0,943317969	1,200757639
<i>Aqp3</i>	0,829132165	0,90377868	1,116167106	0,930472053	1,250236867
<i>Foxd2</i>	0,929298521	0,845045433	1,071011199	0,88051167	1,266997103
<i>Rhoq</i>	0,90025386	0,921734972	1,12050862	0,824964182	1,261246629
<i>Scnn1a</i>	0,842920733	0,91226065	0,983535411	0,874911091	1,187562762
<i>Mark4</i>	0,830280177	0,901425779	0,986882603	0,907558998	1,211929839
<i>Sh3glb2</i>	0,897420122	0,815710636	0,929970658	0,944409721	1,216210421
<i>Ttc9c</i>	0,756132227	0,939602087	1,078581776	0,841884133	1,244871822
<i>Coro6</i>	0,82660462	0,90268818	1,034602292	0,847054066	1,339224544
<i>Acss1</i>	0,835259682	0,791985748	1,062972766	0,746608517	1,307872292
<i>Atp6v0b</i>	0,496059464	0,375856885	0,907310409	0,931596607	1,002957816
<i>Zdhhc7</i>	0,495044663	0,434117383	0,856943278	0,960956647	1,051708735
<i>Lin7c</i>	0,479837937	0,40849542	0,816619679	1,005320726	1,13666767
<i>O610031J06Rik</i>	0,638394942	0,479511071	1,021608734	1,051727018	1,120660151
<i>Hsp90aa1</i>	0,65742136	0,428988054	0,931746787	0,928882304	1,073614361
<i>Mgat2</i>	0,730529347	0,466344368	0,898080852	1,19724045	1,161548119
<i>Med25</i>	0,828502516	0,517033817	0,841517617	0,98298516	1,195336458
<i>Snhg3</i>	0,67645398	0,304560826	1,113937941	0,955027961	1,3804312
<i>Smcr7</i>	0,850993063	0,418478734	0,868884365	0,989891643	1,462954449
<i>A330009N23Rik</i>	0,676967177	0,279273959	0,752605218	0,948187355	1,450266869
<i>Tmem160</i>	0,587421672	0,36065845	0,88189367	0,774362531	1,486890621
<i>Cyhr1</i>	0,460500964	0,480773693	0,391565279	1,389739312	1,239361164
<i>Mterf</i>	0,617755535	0,370741132	0,263326195	1,135383181	1,594894738
<i>Drd4</i>	0,625269524	0,725200612	0,526679988	0,866351695	1,46001192
<i>Yipf2</i>	0,515729659	0,868517945	0,557624496	0,910344401	1,400500425
<i>Uba52</i>	0,856656198	0,818252287	0,512700806	1,004571955	1,37162105
<i>Ccdc74a</i>	0,753677101	0,710424315	0,542697306	0,964030344	1,160992277
<i>Pde2a</i>	0,895155811	0,586605769	0,562609234	0,910450383	1,22153909
<i>Uqcr11</i>	0,778153036	0,524116549	0,508851381	0,836045837	1,105464409

<i>Foxc2</i>	0,718515981	0,535836671	0,523316836	0,802179225	1,168472887
<i>A630076J17Rik</i>	0,780692638	0,339839018	0,608438552	0,931022936	1,246744868
<i>Phyhd1</i>	0,592593779	0,355365007	0,551360153	1,038106941	1,16536669
<i>Tstd1</i>	0,772232952	0,385946249	0,287259244	1,080667879	1,02079816
<i>Wfikkn2</i>	0,49284606	0,704148575	0,197513701	0,868441414	1,035306205
<i>Zfp764</i>	0,486307064	0,706525665	0,411459253	0,98609623	1,230035783
<i>Selm</i>	0,710820642	0,888371833	0,352068905	0,913078923	1,117129808
<i>1700047I17Rik2</i>	0,732771234	1,005439322	0,012908504	0,976386503	1,121370949
<i>Fam177a</i>	0,732771234	1,005439322	0,012908504	0,976386503	1,121370949
<i>Pfdn5</i>	0,397772427	1,120823321	1,16257336	0,916125535	1,288034459
<i>Hdac2</i>	0,371749627	1,088284151	1,282244784	1,003772023	1,320405753
<i>Vps26b</i>	0,380500621	0,891657449	1,109541353	0,919188241	1,33567759
<i>Prkrir</i>	0,381320207	0,906920579	1,081529674	0,915146671	1,32415628
<i>Ric8b</i>	0,38007846	0,937205336	1,122831289	0,838403245	1,289841049
<i>Tbc1d20</i>	0,399640538	0,874752685	1,169114109	0,965076098	1,330420453
<i>Ilkap</i>	0,508068346	1,014871288	1,252844527	1,069488747	1,355607068
<i>Ivns1abp</i>	0,565960918	1,031599726	1,234103586	1,064468243	1,36760534
<i>Rasa2</i>	0,468386649	1,019941673	1,204823337	1,096630834	1,338267612
<i>Arhgap4</i>	0,571035849	0,945792092	1,271350125	1,03352612	1,26654883
<i>Mms19</i>	0,559528759	1,011685927	1,324593543	1,004694654	1,316361729
<i>Nedd4</i>	0,48160699	0,953573955	1,237386113	0,924276392	1,374315383
<i>Isg20l2</i>	0,466415647	1,02204472	1,260893138	0,970215528	1,327893304
<i>Gpr97</i>	0,487280813	0,943917332	1,206091695	0,929351657	1,272353747
<i>Ffar2</i>	0,481760084	0,978271433	1,16620236	0,942126075	1,251599573
<i>Golt1b</i>	0,546150708	0,989374414	1,184285985	0,972523432	1,286289743
<i>Zfp664</i>	0,4921801	0,969337514	1,160172186	0,859414962	1,077227627
<i>Klhl11</i>	0,478312336	1,091316878	1,297096686	0,900684866	1,164801711
<i>Rab2a</i>	0,236341997	1,003838082	1,113216822	0,984705036	1,350361847
<i>Gpbp1l1</i>	0,30894805	1,021686205	1,103490151	1,003436853	1,390851995
<i>Vcpip1</i>	0,245633871	1,003346971	1,043362881	0,971051768	1,441091913
<i>Usmg5</i>	0,269735502	1,041574464	0,953806787	0,877502147	1,310826868
<i>Arhgap1</i>	0,431114675	0,994354909	0,952390248	1,0129516	1,28663232
<i>Ncbp2</i>	0,372420633	0,945171059	0,912667242	0,971087415	1,255994922
<i>Nt5e</i>	0,335434678	0,995990983	0,954165518	0,954811554	1,361044978
<i>Zfp809</i>	0,417994013	0,957975586	0,973718787	0,93412629	1,390616643
<i>Tra2a</i>	0,208450867	0,917731857	1,193214017	1,163183646	1,372560958
<i>Hspa4</i>	0,212619996	0,963814276	1,179004485	1,199300131	1,367529867
<i>Csde1</i>	0,142935957	0,97387922	1,257689985	1,166155651	1,443954733
<i>Caprin1</i>	0,140178561	1,027117597	1,242637286	1,254687613	1,330546578
<i>Csnk2a1</i>	0,187834918	0,917658128	1,157071064	1,126828936	1,272354258
<i>Qrich1</i>	0,200444183	0,910753803	1,104355434	1,116934183	1,293847664
<i>Mob4</i>	0,248649725	0,965810172	1,152813678	1,140798999	1,265767739
<i>Tnik</i>	0,175558344	0,986189792	1,188341461	1,081332816	1,274377029
<i>Fem1b</i>	0,138191415	0,964828247	1,216781558	1,079185387	1,24246955
<i>Clk4</i>	0,221080037	0,966616533	1,296669161	1,027474054	1,347063552
<i>Gar1</i>	0,129463083	0,99145929	1,29690537	1,021199823	1,353391837
<i>Ing2</i>	0,239168717	0,950927674	1,382480643	1,023367474	1,293494312
<i>Lman1l</i>	0,247999513	0,808930258	1,424404431	1,033056934	1,486585203
<i>Jmjd7</i>	0,114627095	0,774356427	1,334472779	1,01555118	1,395477724
<i>Wdr43</i>	0,210839809	0,855265795	1,178456792	1,143580962	1,496506763
<i>Calr</i>	0,244658389	0,790942852	1,225018531	1,182218607	1,494334252

<i>Pde3b</i>	0,164898609	0,800969178	1,223094448	1,109508258	1,550299978
<i>C030034I22Rik</i>	0,179006849	0,807337803	1,2221903	1,054266229	1,591447456
<i>Tssk2</i>	0,306898149	0,96406597	1,055089697	1,146567252	1,38256908
<i>Parp9</i>	0,328042965	0,877230804	1,095563273	1,138498944	1,469123138
<i>Rbm7</i>	0,189637439	0,945265743	1,075989263	1,139167248	1,487536994
<i>Uhmk1</i>	0,315514978	0,988932573	1,234317296	1,117537649	1,458576148
<i>Chchd2</i>	0,278948066	0,990044147	1,251547413	1,05787229	1,46085425
<i>Rnf146</i>	0,305398492	1,01311674	1,208676174	1,099553457	1,412062554
<i>Ybx1</i>	0,287766592	1,027173292	1,228760123	1,074432917	1,371595349
<i>Atp5j</i>	0,295149465	0,996966956	1,160077814	1,094277824	1,560798699
<i>Smek1</i>	0,272254828	1,0145934	1,225551398	1,126363731	1,520583203
<i>Hsp90b1</i>	0,291273501	0,998351591	1,190173969	1,057960734	1,642018185
<i>Mrpl33</i>	0,174185474	1,120657423	1,22856114	1,105336296	1,570355724
<i>Rnps1</i>	0,096952009	0,945845168	1,199614296	1,01070042	1,551059719
<i>Dleu2</i>	0,604069012	0,913551488	1,213157339	1,126299275	1,298835063
<i>E530011L22Rik</i>	0,611634178	0,973280771	1,175194343	1,151207338	1,277131484
<i>Cs</i>	0,592604101	0,990247044	1,25251496	1,160573952	1,296788361
<i>Z610301G19Rik</i>	0,691683487	0,932658901	1,332456336	1,145124986	1,250735431
<i>Zmym1</i>	0,609674074	1,066366563	1,318745643	1,086390442	1,217066947
<i>Ddx17</i>	0,650883059	1,121457097	1,286944163	1,145092243	1,290627221
<i>Nfe2l1</i>	0,571111855	1,079957477	1,404648321	1,067744096	1,294427662
<i>Tdp2</i>	0,486500408	0,875271575	1,246442142	1,206267846	1,471027427
<i>Wbscr16</i>	0,481768199	0,991451805	1,316417874	1,181232813	1,496502412
<i>Dnajc14</i>	0,443380302	0,908362919	1,278573854	1,200378344	1,304817385
<i>O610007L01Rik</i>	0,425544405	0,926518412	1,199928229	1,241553393	1,391533455
<i>Znfx1</i>	0,536565849	1,135289542	1,086776044	1,19243831	1,484296432
<i>Ube2q1</i>	0,549903541	1,116303679	1,094796264	1,224200881	1,567170286
<i>Rps19bp1</i>	0,497039124	1,139901749	1,094509669	1,007148681	1,506296625
<i>Wdyhv1</i>	0,486353344	0,998584551	1,146503908	1,100591937	1,563592125
<i>Reep5</i>	0,469885213	0,998560752	1,198200814	1,125743759	1,499716355
<i>Anapc7</i>	0,526217078	0,97668275	1,179821977	1,037967564	1,492054852
<i>Eml4</i>	0,588526862	1,044134181	1,179529644	1,15762413	1,452715348
<i>Kif5b</i>	0,500661411	1,071613172	1,205335542	1,165751865	1,422453347
<i>Srsf12</i>	0,56575165	1,047772692	1,314680391	1,115231889	1,526040124
<i>Cyth3</i>	0,59943356	0,983762621	1,285662104	1,091248473	1,536946246
<i>4930581F22Rik</i>	0,597517871	1,105099492	1,189367293	1,118243265	1,576995781
<i>Eif4a3</i>	0,3928994	0,98175188	1,096755601	1,111370709	1,380249744
<i>Ahnak</i>	0,398280901	0,898720519	1,140269712	1,094570535	1,415064354
<i>Tmod3</i>	0,474514635	0,933215187	1,125813731	1,136665104	1,464201089
<i>Zswim6</i>	0,379834937	0,964471579	1,145575974	1,178420251	1,502200007
<i>Pds5a</i>	0,415170348	0,998398522	1,164913981	1,174642573	1,465881156
<i>Pcf11</i>	0,349017444	0,99598863	1,110829323	1,237517866	1,483607871
<i>Srpr</i>	0,497392812	0,86151184	1,019708148	1,138623564	1,54226625
<i>Rpl35a</i>	0,427503829	0,941937264	1,068428367	1,079528752	1,601400296
<i>Ttc3</i>	0,312851564	1,196697517	1,346127372	1,183652174	1,241178484
<i>Ube2b</i>	0,303804841	1,158218791	1,268125228	1,195943202	1,226041842
<i>Kdm5b</i>	0,401463331	1,213815203	1,288594382	1,196220887	1,17105267
<i>Cdc40</i>	0,385306259	1,247146051	1,250442693	1,183386676	1,21143953
<i>Stap1</i>	0,415498304	1,183282658	1,26384641	1,062445529	1,193879974
<i>Ranbp6</i>	0,4628357	1,253332868	1,243194339	1,068409804	1,25533178
<i>Tmem70</i>	0,389645281	1,310951554	1,413166309	1,209371754	1,376924492

<i>Sgk3</i>	0,472973772	1,226073551	1,363013988	1,18149102	1,329896769
<i>Gramd1b</i>	0,304651633	1,265787204	1,278424333	1,137073395	1,42610863
<i>4933426M11Rik</i>	0,289279044	1,244633909	1,26058862	1,218437492	1,368328085
<i>Capza2</i>	0,350936872	1,128218874	1,376205603	1,148657575	1,409258089
<i>Zfp53</i>	0,451437141	1,069128379	1,398114539	1,099182758	1,482639379
<i>Plekho2</i>	0,4499592	1,100024397	1,424987332	0,959568733	1,417080527
<i>Ifit1</i>	-0,315524156	1,047837612	1,263763268	1,320349372	1,347671465
<i>Tank</i>	-0,025645465	1,106476758	1,228494912	1,271078947	1,311418246
<i>Cnot6l</i>	0,00925747	1,174156215	1,264562922	1,38562513	1,386524083
<i>Nup153</i>	0,07309876	1,07871473	1,092156977	1,432552148	1,368593301
<i>Rod1</i>	0,164664669	1,13710007	1,221562554	1,293660637	1,369563351
<i>Pum2</i>	0,22940816	1,16695383	1,273221076	1,30952692	1,396442494
<i>Msn</i>	0,137661723	1,191969532	1,242685036	1,218052122	1,345343697
<i>Pon2</i>	0,236912184	1,138942885	1,170807501	1,241587263	1,225522497
<i>Tm9sf3</i>	0,275120476	1,13319804	1,13955289	1,249496633	1,359081325
<i>Arcn1</i>	0,120178762	1,005829638	1,287386366	1,229191839	1,589831504
<i>Dmtf1</i>	0,086363106	0,972815573	1,256941044	1,262235699	1,54392355
<i>2500003M10Rik</i>	0,05553287	0,998362895	1,191990893	1,229661722	1,517191645
<i>Atrip</i>	0,232189401	0,944233316	1,249017957	1,223629116	1,59425838
<i>Ipcef1</i>	0,161802088	0,994900715	1,196537123	1,233888477	1,645729625
<i>Zc3h15</i>	0,046292229	1,005287522	1,395746598	1,14707429	1,520716148
<i>Zfp622</i>	0,073924165	1,017431611	1,330030526	1,164111639	1,457764083
<i>Samd9l</i>	0,045091833	1,059698463	1,410986769	1,30478714	1,558948288
<i>Tmem9b</i>	0,154197577	0,979200671	0,963154866	1,254354355	1,457013247
<i>Filip1l</i>	0,12289361	1,084495453	1,057382427	1,190338091	1,404478453
<i>Dguok</i>	0,330141784	0,968508505	0,968033161	1,290706923	1,416833901
<i>Metap1</i>	0,298692242	0,973649259	1,014013747	1,280518274	1,328774546
<i>Nras</i>	0,182675812	1,108060269	1,055838292	1,318184286	1,386812188
<i>C030019I05Rik</i>	0,28247046	1,127777256	1,046445678	1,371219314	1,354654122
<i>Tmf1</i>	0,206510582	1,193979865	1,081293197	1,310232483	1,499009826
<i>Kpna4</i>	0,233491512	1,036926384	1,182564551	1,252744125	1,462797982
<i>Cpsf6</i>	0,279953105	0,987646365	1,174680711	1,272977398	1,441473752
<i>Arhgap39</i>	0,281786693	1,062215138	1,1608172	1,392567113	1,43841432
<i>Rnf4</i>	0,337691113	0,904231153	1,4134268	1,175650387	1,533977986
<i>Zcchc13</i>	0,327003195	1,022656323	1,452227209	1,133136732	1,476891195
<i>2900097C17Rik</i>	0,337029657	1,004945528	1,428990875	1,241855056	1,387774806
<i>Mitd1</i>	0,422005303	0,92994701	1,436240824	1,2444285	1,455667996
<i>Vapa</i>	0,362717222	1,014647988	1,351015005	1,251252467	1,638282271
<i>Trafd1</i>	0,379366479	1,06051132	1,487510128	1,294713048	1,616932519
<i>Matr3</i>	0,278678493	1,07015409	1,448228893	1,44379734	1,626087164
<i>Map3k3</i>	0,278138955	1,115039986	1,406232205	1,486814598	1,581777879
<i>5430416N02Rik</i>	0,315277504	1,046890313	1,405510173	1,417790937	1,524345028
<i>Zfp207</i>	0,425823918	1,036967346	1,410852429	1,474383954	1,589289092
<i>Hnrnpm</i>	0,331357386	1,120492806	1,447201892	1,344526818	1,432724268
<i>Kpnb1</i>	0,332990486	1,110370717	1,357817691	1,395830433	1,427850624
<i>Dcaf12</i>	0,515212576	1,216531417	1,24575522	1,316976869	1,475658034
<i>Usp25</i>	0,419582376	1,177978335	1,257300877	1,270065344	1,519882315
<i>Csnk1g3</i>	0,423634495	1,278521769	1,249575273	1,379082033	1,491530434
<i>Picalm</i>	0,341972363	1,218020773	1,385025882	1,293334204	1,489077765
<i>Papola</i>	0,367921017	1,229997737	1,38380112	1,330576887	1,50561757
<i>Gpbp1</i>	0,407104567	1,222579156	1,421279747	1,249178916	1,44889484

<i>Arpc1a</i>	0,416276107	1,258700252	1,350880064	1,335864662	1,469845267
<i>Rap1gds1</i>	0,456380355	1,228459278	1,374087346	1,333717161	1,491828664
<i>Abi1</i>	0,467522069	1,258233887	1,334653244	1,286030378	1,483341658
<i>Zzz3</i>	0,429249592	1,200999159	1,357503456	1,291811256	1,550939545
<i>Tmem30a</i>	0,376184562	1,015827339	1,239884481	1,284842149	1,512492789
<i>Lnpep</i>	0,343788865	1,056470657	1,267590875	1,274633717	1,53051991
<i>Eif3h</i>	0,328276509	1,119127549	1,278618809	1,224621432	1,491788672
<i>Snrnp70</i>	0,298886525	1,098765961	1,284342716	1,238694355	1,514157824
<i>Ppp1r12a</i>	0,404212045	1,100859496	1,244210725	1,261331279	1,496109682
<i>Ngdn</i>	0,374989439	1,068928938	1,255227316	1,247769032	1,436717487
<i>Zfp866</i>	0,38994758	1,118631072	1,300613249	1,289344052	1,447759285
<i>Rbm5</i>	0,398640031	1,125961852	1,208788976	1,212351745	1,458652022
<i>Prkacb</i>	0,435089803	1,099554834	1,258214748	1,185052554	1,476261753
<i>Paip2</i>	0,265571222	1,312687489	1,352950022	1,366182581	1,483896638
<i>Smarce1</i>	0,181804793	1,279694837	1,313227064	1,334297763	1,396238684
<i>Laptm4a</i>	0,180971457	1,203513038	1,347919272	1,275669073	1,536679422
<i>Ythdc1</i>	0,171705062	1,176642794	1,385929426	1,348347516	1,484732399
<i>Wdr26</i>	0,247660314	1,347124885	1,235814045	1,440183149	1,547725759
<i>Ncbp1</i>	0,223272159	1,3460609	1,330000741	1,484144536	1,576290102
<i>Rbbp6</i>	0,222912974	1,210627025	1,477585878	1,309918758	1,524086558
<i>5330426P16Rik</i>	0,148376377	1,22207562	1,50616136	1,402928092	1,555645469
<i>Gm20199</i>	-0,126524007	1,381303816	1,420921252	1,45598198	1,506478858
<i>Uchl4</i>	-0,227113452	1,432910066	1,373638343	1,465558303	1,414475383
<i>Nedd9</i>	0,310112837	1,483053503	1,542626033	1,438889689	1,488407991
<i>Hspb7</i>	0,219581195	1,522883374	1,657370361	1,222012052	1,348177578
<i>Rabgef1</i>	0,244069109	1,096496333	1,2031515	1,07453474	1,210709194
<i>Pdha1</i>	0,211000009	1,23292349	1,21025514	1,106921587	1,232641463
<i>Klk9</i>	0,198394337	1,196508624	1,315538413	0,953369403	1,367496714
<i>Morn2</i>	0,184810928	1,07843257	1,451114575	1,042258468	1,069679115
<i>Rap2c</i>	-0,00762213	1,422906389	1,412495114	1,196723608	1,156673839
<i>Plat</i>	0,289011685	1,085202458	0,692596073	1,66923266	1,645202487
<i>9930111J21Rik2</i>	0,065786798	0,963169256	0,965389085	1,818914896	1,829216875
<i>Ms4a4c</i>	0,23557824	0,871028805	0,985047339	1,480218442	1,576305592
<i>Rexo2</i>	0,339021743	0,88776816	0,929314091	1,416461993	1,618327016
<i>Aim2</i>	0,180748458	0,794894968	0,864709916	1,299107637	1,650659774
<i>Klhdc2</i>	0,363474064	0,851874533	0,76166209	1,482195309	1,657086492
<i>A430078G23Rik</i>	0,315344127	1,009000773	1,228083457	1,542872873	1,699930736
<i>Casp8</i>	0,297230556	1,068164168	1,237804765	1,387442103	1,649963464
<i>Smurf2</i>	0,230396042	0,866376381	1,133771151	1,34585417	1,592438482
<i>Gm8369</i>	0,272512849	0,892806949	1,178672128	1,493612508	1,603008082
<i>Mthfd2</i>	0,58698351	0,879529206	1,117712997	1,652337065	1,566446379
<i>Icosl</i>	0,497459385	1,016424612	0,995936439	1,619886391	1,522870757
<i>Mrpl27</i>	0,164168505	1,437389636	0,739335965	1,392114445	1,36129833
<i>Pigc</i>	0,056494179	1,162999247	0,736075632	1,354611022	1,532190409
<i>Arid5b</i>	0,210696646	1,311468673	1,039438745	1,470889846	1,361883518
<i>Rpl24</i>	0,228172113	1,27141441	1,156954634	1,459957701	1,450202147
<i>Fam134b</i>	0,046596156	1,255751562	0,964583224	1,513340883	1,340146184
<i>A030009H04Rik</i>	0,323841789	1,290918265	0,933535938	1,65366671	1,436779521
<i>Zfp579</i>	0,415285516	0,692479441	1,021653249	0,857394372	1,359857757
<i>Naa25</i>	0,37532585	0,741143833	1,022350574	0,924224782	1,374775357
<i>Rsl24d1</i>	0,467739619	0,591689799	1,093964401	0,855600498	1,402725955

<i>Mllt1</i>	0,465792874	0,642089924	1,044074643	0,844671966	1,434517304
<i>Slc52a2</i>	0,483709037	0,596758592	1,18583305	0,983865646	1,477823365
<i>Clstn1</i>	0,354311121	0,626715035	1,171704134	1,001942612	1,506074123
<i>Sars</i>	0,317426479	0,724899734	0,952641502	1,027242931	1,489905264
<i>Stx1a</i>	0,352270504	0,657843253	1,048478356	0,91748298	1,560451214
<i>C1qbp</i>	0,227226183	0,756776449	1,151145457	0,837497203	1,418150791
<i>Zfp87</i>	0,198949783	0,855208366	1,226078333	0,92560929	1,317977541
<i>Pdcd6ip</i>	0,267522869	0,757321378	1,072701058	0,917203837	1,311236993
<i>Fnbp4</i>	0,263214812	0,682925319	1,07636303	0,944728447	1,30506502
<i>1200014J11Rik</i>	0,16477397	0,699363163	1,12421971	0,916523244	1,278791406
<i>Dock10</i>	0,174410584	0,694438506	1,067131765	0,957959992	1,418153288
<i>Alkbh1</i>	0,157075981	0,724990792	1,129464734	0,983216545	1,35341144
<i>Sec61a1</i>	0,243417861	0,616958253	0,905403936	0,791056356	1,387921322
<i>Slc15a4</i>	0,290272601	0,61490909	1,011639834	0,752895514	1,358305416
<i>Gars</i>	0,279710646	0,529510812	1,048077446	0,680750677	1,450172263
<i>Adamts10</i>	0,42319272	0,64952432	0,9305828	0,760957048	1,42500973
<i>Fyco1</i>	0,437654838	0,571914952	0,990580114	0,677938656	1,462599738
<i>Rpa2</i>	0,350830627	0,509925035	1,134830322	0,848867479	1,228629227
<i>Slamf7</i>	0,363761195	0,532221075	1,209906839	0,739579828	1,338755738
<i>Gpd2</i>	0,215538635	0,788577527	1,14215663	0,6955651	1,229626851
<i>Sugt1</i>	0,254592229	0,690858219	1,138291166	0,739941093	1,304035939
<i>Pus3</i>	0,304378182	0,729174065	0,961741628	0,640355102	1,290899844
<i>Rps23</i>	0,458527805	0,855621177	1,516023722	0,828297935	1,228410182
<i>Apex1</i>	0,343856454	0,69795357	1,317610981	0,841038672	1,151074179
<i>Abhd14a</i>	0,352332824	0,606560541	1,557429592	0,714243828	1,478419538
<i>Ddc</i>	0,542267664	0,845238479	1,221366043	0,914716252	1,448127447
<i>Cdkl4</i>	0,559990003	0,821121819	1,267197973	0,856622971	1,429065965
<i>Chsy1</i>	0,45424542	0,862407972	1,282893603	0,774739387	1,56828855
<i>Chst15</i>	0,565055785	0,746996657	1,290937598	0,661127446	1,398122787
<i>Gm20257</i>	0,292109681	0,845649978	1,410885325	0,768366258	1,422954025
<i>Pou5f2</i>	0,447973789	1,049133344	1,336896455	0,745125496	1,435431835
<i>Ifng</i>	0,043321571	1,07852348	1,262253202	0,591014327	1,348711556
<i>2900076A07Rik</i>	-0,089220354	0,85069594	1,218005383	0,687181096	1,470064106
<i>Klk8</i>	0,056768767	0,987148165	1,516447781	0,61338935	1,823193376
<i>Rrp9</i>	0,530639076	0,642341768	1,275367811	1,274991544	1,767436984
<i>Cox6a1</i>	0,461061827	0,518822277	1,295748017	1,312335019	1,656786218
<i>1810034E14Rik</i>	0,234067417	0,380982674	1,289690913	1,189713568	1,864828504
<i>Appl2</i>	0,346309605	0,84119686	1,284577605	1,423762028	1,732101877
<i>Lipt1</i>	0,529658381	0,828983777	1,415735851	1,496203454	1,709468496
<i>Arpc5</i>	0,200337371	0,732879417	1,439047713	1,572340218	1,822996447
<i>Fam32a</i>	0,655075506	0,743132026	1,425643291	1,282334582	1,495030963
<i>Nob1</i>	0,525927395	0,835486681	1,542615607	1,22206449	1,440703504
<i>Plp2</i>	0,514293456	0,656768956	1,651235563	1,328729478	1,283233547
<i>Pus1</i>	0,251340633	0,561573327	1,401968762	1,23333037	1,33440779
<i>Rplp2</i>	0,379621079	0,728810684	1,326102272	1,312784406	1,33759014
<i>Ankrd34a</i>	0,218365837	0,541083172	0,875943638	0,341299324	1,184689254
<i>Cox5b</i>	0,124339418	0,298476918	0,927666529	0,243158498	1,227463067
<i>Klhl28</i>	-0,035345672	0,395185033	0,891619424	0,643041316	1,0177489
<i>Sec61g</i>	0,083192618	0,310524106	0,975012813	0,567634943	1,073882905
<i>Mki67ip</i>	-0,147071212	0,470525631	0,901639937	0,396675048	1,038447508
<i>Pim2</i>	0,153693704	0,011163911	0,809656683	0,643172659	1,276480508

<i>Crybb1</i>	0,251939235	0,115118809	0,81999563	0,610189252	1,383711263
<i>Lrrc14b</i>	-0,070329081	-0,03185025	0,929291821	0,508241789	1,328518508
<i>Olfr551</i>	-0,108328527	0,142161941	0,637006086	0,431751528	1,472596069
<i>4930579K19Rik</i>	0,06504307	0,374991569	0,79883711	0,484071711	1,208293396
<i>2410002F23Rik</i>	0,124995051	0,353817683	0,932507595	0,573913264	1,267253658
<i>4933402J15Rik</i>	-0,079518298	0,201868728	0,813987239	0,515556175	1,150979488
<i>Spryd4</i>	-0,049513597	0,305069486	0,723980773	0,727930822	1,314203611
<i>Klk10</i>	-0,070583327	0,216641463	0,695786143	0,672163487	1,320815686
<i>Timm8b</i>	0,403828711	0,164634557	0,902142497	0,576782792	1,455136465
<i>Wnt8a</i>	0,389928672	-0,112065366	1,010190415	0,418456916	1,484591245
<i>Chpf2</i>	0,646293173	0,062217382	0,973682386	0,667809245	1,352493852
<i>1700020L24Rik</i>	0,573157708	0,130044292	0,759397655	0,328950903	1,145395985
<i>4930592I03Rik</i>	0,516619533	-0,165924276	0,738626028	0,168049312	1,24758703
<i>Taar5</i>	0,634890562	-0,12104075	0,371017876	0,513163261	1,245444274
<i>D230037D09Rik</i>	0,355920668	-0,044094525	0,650266284	0,765593633	1,210872659
<i>Gzmm</i>	0,593147138	0,255754874	0,38175949	0,503128782	1,052955266
<i>Nudt18</i>	0,540733928	0,131676013	0,403681645	0,669636852	1,013197556
<i>Man2b1</i>	0,554533918	0,405383576	0,40707372	0,779444464	1,003680138
<i>Tut1</i>	0,334648693	0,474030424	0,616639586	0,595865661	1,093008241
<i>Gpank1</i>	0,300528411	0,407486459	0,719727163	0,522820457	1,151713284
<i>L3mbtl2</i>	0,400692469	0,472121808	0,641560542	0,361512217	1,019104443
<i>S100a3</i>	0,19408061	0,332452758	0,430434376	0,28869475	1,19139545
<i>Zfp688</i>	0,21485792	0,407887084	0,436364089	0,363400566	1,376988995
<i>Clp1</i>	0,201267547	0,209775083	0,681750091	0,603830474	1,294536268
<i>Aen</i>	0,194118137	0,15601236	0,648547982	0,522015689	1,319205704
<i>5033406O09Rik</i>	0,325286148	0,165512045	0,708352146	0,402861228	1,213215525
<i>Aamp</i>	0,372252308	0,259407267	0,621518904	0,424327592	1,011612585
<i>4933430H16Rik</i>	0,294321714	0,249691126	0,664628117	0,367150885	1,064534283
<i>Cd320</i>	0,244262054	0,13381646	0,495512092	0,412776397	1,052356175
<i>Tlr1</i>	-0,269993202	0,081480892	0,242410833	0,71116714	1,043335485
<i>Ncf4</i>	0,126574761	0,232928283	0,344738026	0,621401982	1,022776386
<i>Piga</i>	-0,023626629	0,020127486	0,539072983	0,41970991	1,211595249
<i>1700029H14Rik</i>	-0,033513445	0,052782321	0,534100545	0,475124316	1,000050393
<i>Glyctk</i>	0,245481549	0,263491692	0,496018202	0,613569113	1,096938921
<i>Comp</i>	0,344314005	0,328962551	0,517212962	0,656083405	1,011042682
<i>Fam96a</i>	0,234909321	0,454690858	0,390923889	0,607155537	1,045401559
<i>Ddx41</i>	0,193614081	0,389443701	0,405282474	0,607883304	1,151899527
<i>1110018J18Rik</i>	0,15381206	0,34241387	0,497885564	0,7531896	1,266167221
<i>Sidt1</i>	0,233608124	0,403179709	0,548680071	0,7736272	1,302083967
<i>Nolc1</i>	0,372438561	0,475206458	0,403996532	0,695750854	1,020458137
<i>Trim39</i>	0,429929935	0,576251003	0,475497624	0,783698038	1,017119734
<i>Psmg3</i>	0,246414983	0,554143276	0,366283733	0,787300127	1,034393574
<i>Mrps14</i>	0,201820615	0,346395294	0,619588656	0,57191917	1,100702701
<i>Timm17a</i>	0,131591911	0,435085761	0,670474078	0,590829131	1,157823765
<i>Pars2</i>	0,128505021	0,407380654	0,626331808	0,421283616	1,062752221
<i>Vamp4</i>	0,04180089	0,486251558	0,736254247	0,595416158	1,060092416
<i>Grpel1</i>	0,000533244	0,434333723	0,656248037	0,487427657	1,004365558
<i>Pdcd6</i>	-0,11764126	0,268967268	0,462450518	0,588001273	1,013057993
<i>BC094916</i>	-0,563712122	0,273970909	0,487795257	0,698060075	1,019218111
<i>Naa38</i>	-0,193855027	0,362160701	0,508017257	0,561933163	1,142832965
<i>2700090O03Rik</i>	-0,116093146	0,494718565	0,435261474	0,586935301	1,004899435

<i>Cox18</i>	-0,201098134	0,423343787	0,476851544	0,682364369	1,02201413
<i>Wdr45l</i>	0,181466661	0,584745284	0,815620926	0,717987105	1,083644249
<i>Kars</i>	0,191338185	0,570784731	0,784331873	0,697553288	1,143134612
<i>Zfp472</i>	0,149935157	0,500564596	0,807810722	0,639591017	1,068582125
<i>Fosl2</i>	0,090375171	0,562111633	0,855014588	0,619812757	1,168717161
<i>Smad2</i>	0,197101432	0,669511203	0,790782157	0,680569622	1,085611996
<i>Prpf18</i>	0,141501909	0,649158102	0,786661986	0,664311882	1,021132669
<i>Adam17</i>	0,152682266	0,595509089	0,727911929	0,622195636	1,001424139
<i>Tspyl2</i>	0,182651386	0,562661313	0,6346069	0,625743624	1,056045396
<i>Hspd1</i>	0,164402673	0,469522202	0,693064516	0,609394983	1,02381144
<i>Klre1</i>	-0,711871032	0,557508089	0,748402585	0,556259882	1,239449173
<i>Ly9</i>	0,12159946	0,451813129	0,595845785	0,762011442	1,024012928
<i>Cript</i>	-0,016001538	0,425484255	0,634052639	0,731532143	1,039914437
<i>3110001I22Rik</i>	-0,113322711	0,472463285	0,673654572	0,802084172	1,052106849
<i>Kdm6a</i>	-0,147664673	0,521986609	0,708289032	0,843210549	1,005659804
<i>AW549877</i>	0,034565733	0,511327131	0,604129345	0,857587421	1,004741968
<i>Cct7</i>	0,089173509	0,39559606	0,689257099	0,706583361	1,061744582
<i>Napg</i>	0,10600329	0,383165034	0,774306566	0,696242739	1,006550554
<i>Nutf2</i>	0,161552805	0,433191328	0,688711307	0,783240748	1,048925767
<i>Smu1</i>	0,182266776	0,470955059	0,681292898	0,782160832	1,054319202
<i>Nutf2-ps1</i>	0,153825933	0,414793623	0,738098788	0,831494064	1,073950538
<i>Fam48a</i>	0,041752465	0,556578779	0,839271085	0,717475426	1,047769473
<i>Herc4</i>	0,064483753	0,530728706	0,745623695	0,790199958	1,01097818
<i>Dse</i>	-0,1606038	0,542616575	0,789801814	0,810654337	1,177044515
<i>Fbxw2</i>	0,089728591	0,508302388	0,766163189	0,811053696	1,149558903
<i>2810403A07Rik</i>	0,178635903	0,556750572	0,846602324	0,879664183	1,172924843
<i>Alkbh5</i>	0,193702312	0,534586486	0,750628277	0,835798787	1,202267256
<i>Mak16</i>	0,111966243	0,390888061	0,818374052	0,843440941	1,205223964
<i>Mob1a</i>	0,119797887	0,488486891	0,734529052	0,93110478	1,190406888
<i>Itga4</i>	0,067151962	0,557976725	0,758713906	0,987263364	1,2790474
<i>Zkscan14</i>	0,145351392	0,591248997	0,663423076	0,915867993	1,346378605
<i>Dhx16</i>	0,22774379	0,581175878	0,674681295	0,926188069	1,293864068
<i>Eif1ad</i>	0,261874626	0,585603941	0,622166712	0,816691591	1,240291323
<i>D630032N06Rik</i>	0,537506758	0,383748197	0,626608714	0,645541168	1,435476482
<i>Aoc2</i>	0,551946419	0,450570158	0,605486183	0,658970183	1,282124694
<i>Acap3</i>	0,475941999	0,382802219	0,538910491	0,577454664	1,190617995
<i>MIst8</i>	0,610258412	0,486026305	0,700990647	0,459904329	1,371289445
<i>1600002H07Rik</i>	0,715511411	0,527090488	0,714964941	0,511390425	1,301048762
<i>Mblac1</i>	0,680632686	0,494143761	0,685382169	0,628034099	1,442220545
<i>Epsti1</i>	0,663983323	0,589204931	0,783362152	0,557426565	1,395718712
<i>Aph1a</i>	0,676419855	0,606553592	0,738751059	0,472626002	1,349062861
<i>3200002M19Rik</i>	0,626457242	0,680311888	0,775061317	0,523177776	1,3138225
<i>lqcg</i>	0,497394819	0,593431799	0,721840913	0,659398691	1,002349029
<i>Lsm6</i>	0,465977915	0,674455544	0,777670306	0,650272338	1,000718228
<i>Tpm1</i>	0,394982938	0,598842171	0,773654031	0,765614897	1,048022469
<i>Prkrip1</i>	0,354694304	0,597302454	0,746296758	0,738624189	1,01255092
<i>Hrh2</i>	0,497408374	0,704733769	0,691815206	0,75139965	1,119056704
<i>Afg3l1</i>	0,430462993	0,675498794	0,763941357	0,740699119	1,089649704
<i>Maneal</i>	0,397473736	0,666015335	0,668303351	0,778179299	1,125323605
<i>Eif2b1</i>	0,418747571	0,609217912	0,693673089	0,697046157	1,136981675
<i>Plod3</i>	0,406906019	0,581684257	0,648099419	0,640776815	1,020913202

<i>Gart</i>	0,370451833	0,637846508	0,570810889	0,691991304	1,001444517
<i>Serhl</i>	0,333708666	0,698185193	0,685973757	0,50151108	1,197380547
<i>Nfe2</i>	0,253785792	0,613054246	0,668960699	0,589503198	1,223259094
<i>Syt11</i>	0,327930014	0,605246017	0,729478295	0,477466024	1,077126748
<i>Arrdc1</i>	0,46660941	0,256002652	0,870026421	0,668685316	1,034303422
<i>Snip1</i>	0,328776703	0,386030482	0,956161368	0,675305692	1,065858294
<i>Ppp1r8</i>	0,490299736	0,494160046	0,914717385	0,761811009	1,074581897
<i>Raver1</i>	0,480139923	0,492389963	0,946253049	0,685849518	1,078678832
<i>Trpm4</i>	0,504663225	0,487017472	0,853725727	0,713028516	1,109505885
<i>Wdr90</i>	0,503996407	0,504542431	0,839547718	0,71286446	1,13583802
<i>Rangap1</i>	0,462514201	0,498879881	0,818724056	0,624574362	1,046096415
<i>Stx5a</i>	0,325877791	0,460008444	0,661580036	0,661584085	1,021318602
<i>Itpa</i>	0,362716299	0,499033096	0,649670972	0,741722943	1,04311767
<i>Taf1d</i>	0,416901417	0,43304761	0,688094439	0,640873179	1,026203865
<i>Dync1h1</i>	0,433530512	0,493911199	0,6528118	0,710053791	1,129756172
<i>Dph2</i>	0,437405048	0,433409103	0,634100916	0,768843585	1,074334681
<i>Ppib</i>	0,275883923	0,362679212	0,676506966	0,67310908	1,053873319
<i>Gm4566</i>	0,336578712	0,368641634	0,690785334	0,732877442	1,096137271
<i>1810006J02Rik</i>	0,335515866	0,397823805	0,832783962	0,6471974	1,139802878
<i>E330016A19Rik</i>	0,409084232	0,345251998	0,810706834	0,708527254	1,171248318
<i>Cdc34</i>	0,444516532	0,388335024	0,789620388	0,589003133	1,138531336
<i>Tkt</i>	0,427925375	0,400786096	0,724874636	0,557373903	1,123736715
<i>Skiv2l</i>	0,489326709	0,412457242	0,737208568	0,751906287	1,073764029
<i>Cpsf4</i>	0,471700674	0,411768994	0,771803156	0,833276126	1,04560241
<i>E4f1</i>	0,562853767	0,31976444	0,684964733	0,797414599	1,042314082
<i>Cks2</i>	0,421409704	0,340038954	0,629354338	0,79580345	1,144798583
<i>Mtx1</i>	0,411829742	0,372604056	0,62673272	0,824646951	1,133324856
<i>Armc10</i>	0,526852764	0,481210056	0,777910806	0,80578818	1,086914639
<i>Golga7</i>	0,55813362	0,539985326	0,778947358	0,823999813	1,056590434
<i>Fam118a</i>	0,551263993	0,576501275	0,717374719	0,773149916	1,006472466
<i>4930471M23Rik</i>	0,48930824	0,468814345	0,641601977	0,895561679	1,03904067
<i>Mrpl24</i>	0,438616891	0,413501584	0,846442023	0,816508964	1,23056805
<i>Opa3</i>	0,382729136	0,390936257	0,77430625	0,847362461	1,177494471
<i>Mrpl30</i>	0,452534751	0,428141293	0,759519486	0,936699998	1,284192873
<i>Ubxn1</i>	0,406634349	0,359015656	0,899156199	0,921935923	1,24595749
<i>Al646023</i>	0,409136697	0,403628553	0,685622602	0,818483839	1,410742513
<i>Tmed9</i>	0,503485178	0,318926599	0,745227189	0,885752164	1,403197188
<i>Myod1</i>	0,286335928	0,240993087	1,368643573	0,413551682	1,605496492
<i>Upk2</i>	0,237444969	0,202799896	1,222011682	0,892165384	1,517297859
<i>Rassf1</i>	0,39018125	0,707653349	1,166872008	0,826034369	1,610744599
<i>4930469G21Rik</i>	0,438279689	0,643475434	1,184924248	0,762395227	1,672659859
<i>Pex16</i>	0,459648233	0,683204831	1,26946188	0,837863422	1,530987615
<i>Ggt1</i>	0,387856263	0,526423866	1,220038024	0,823158778	1,728532331
<i>Kcna2</i>	0,409119715	0,692268773	1,360275038	0,638864107	1,710994561
<i>Ak1</i>	0,45169413	0,568378539	1,154650402	0,548924916	1,494486502
<i>Stx2</i>	0,51502135	0,363740862	1,152652292	0,656944446	1,614637291
<i>Psmb6</i>	0,053492289	0,152275187	0,861350771	0,711494606	1,601356892
<i>B4galt7</i>	0,158793633	0,258205476	0,848932085	0,533877484	1,628231902
<i>Mrps16</i>	0,1379808	0,313262046	0,99218176	0,696945527	1,383987489
<i>Gzmb</i>	-0,515866788	0,547774912	0,90871392	0,6919493	1,517635533
<i>Eomes</i>	0,072618571	0,531909198	0,804264673	0,452730385	1,599949478

4833427F10Rik	0,012912444	0,612767802	0,959577589	0,98826582	1,801348029
Cd48	0,117428274	0,67421631	0,919699421	0,938287399	1,688648494
Art2b	-0,091010672	0,133885853	1,115706112	1,35554031	1,853264978
Klrd1	-0,726679427	0,053920134	0,825651436	0,87264697	2,121676503
Fam46a	-0,081455861	-0,251097248	0,220499743	1,146876824	2,205951623
Olfr372	-0,049259239	-0,133641355	-0,095977412	1,004056451	1,30791255
Hist1h2br	0	0	0	0	2,39966057
Hist1h2bq	0	0	0	0	2,39966057
Gm3750	0	-2,989382464	0	0	3,563402221
Aldh2	1,40906633	1,059518292	0,825436079	0,962196822	0,854320924
4933400C05Rik	1,378155619	0,933839078	0,801888021	1,001525732	0,865412185
Efcab8	1,465739839	0,982774527	0,965860867	0,957398507	0,756359932
Fabp5	1,399894158	0,952130456	0,734299944	0,960645738	0,66559005
Tulp2	1,195102578	0,870020472	0,862083447	1,065510215	0,803022225
C130050O18Rik	1,319350359	0,770524024	0,885427503	0,970950923	0,713632964
Dhcr7	1,241506743	1,046796227	0,943786326	0,993429773	0,818543032
Slc38a6	1,203309296	0,98271722	0,876719137	1,030514099	0,796736915
Efhc1	1,176582493	1,139589559	0,866871305	0,97346796	0,691580534
Accn3	1,294346325	0,926898467	0,601911406	0,975145448	0,946030309
Nudt14	1,362156272	0,965986382	0,615168776	0,885393736	0,996821022
Rnpepl1	1,213650527	0,781188309	0,66556601	0,864152517	0,913132775
2310014F07Rik	1,030133662	1,065051246	0,985559316	1,244024828	0,805461045
Ch25h	0,964126986	1,023745149	0,948731269	1,280115826	0,697838699
Cks1b	1,028254688	1,15386423	1,014057644	1,350266539	0,704165818
Mrps17	0,868592823	0,933591441	0,834308582	1,342579366	0,804641226
1700020N18Rik	1,158313288	0,713342124	0,9482466	1,40249284	0,665873662
4930562F07Rik	1,135459856	1,109645073	0,945310482	1,329378454	1,088303932
1700066B19Rik	1,084287846	1,081583161	0,866932433	1,314959682	0,996777129
Pard6a	1,150565181	1,084213458	0,880823901	1,460893379	1,169092706
3110070M22Rik	1,041930246	1,2693647	0,658358204	1,284870365	1,1899658
Vmac	1,270469244	1,165538028	0,698546264	1,205785501	0,948578192
Mrps7	1,233642399	1,188781792	0,784934243	1,185218618	1,140669671
Gm17762	0,969757913	0,968689853	0,642453828	1,41752182	1,070589407
Rabac1	1,024748977	1,027416835	0,608921915	1,568423831	0,981868014
Dap3	1,014242852	0,894907178	1,017760676	0,982705815	0,991050063
Brpf3	0,995429421	0,882714373	1,051629689	0,906897515	0,933849245
Csrp2	1,020518102	0,974494369	0,97731491	1,007609332	0,949671766
Ltbr	0,994227656	0,99080047	1,002976783	1,033770328	0,865891951
Ston2	0,900373821	1,074688147	1,043088805	0,867838275	0,881474905
Snx15	0,931242313	0,991726383	1,028480446	0,957618583	0,766845783
Coro7	1,007505344	0,996803512	0,977980138	0,904456739	1,054654603
Qrich2	0,948384077	1,059082871	0,932081451	0,903715675	1,053645615
Vamp5	0,92800602	1,013423256	0,882045018	0,836749757	1,029616384
Hivep1	0,940906527	1,018746666	0,866731808	0,856541402	0,964434867
Gys1	0,797013005	0,967866645	0,962700767	0,945498403	1,02961222
Acrbp	0,831204582	0,935781654	0,948536387	0,930859164	1,006274649
Pigp	0,819977868	0,989971087	0,997194484	0,910088101	1,039238154
Ccdc137	0,878721487	1,022348768	0,940362379	0,913126863	0,994486837
Cenpn	0,781938372	0,943437015	1,151597148	0,910043205	1,022278419
Alpk3	0,84283351	0,969253868	1,061084346	1,023916596	1,037202315
Pcdhgc5	0,841049355	0,855796129	1,086880686	0,945206542	0,942301136

<i>Pcdhgc3</i>	0,876939558	0,868441057	1,023006713	0,936951929	0,920496078
<i>Myl2</i>	0,818719875	0,953231129	1,069345718	0,980101058	0,892707129
<i>Rexo4</i>	0,863667526	1,041443023	1,135435456	0,957140212	0,910177165
<i>Pcdhgc4</i>	0,94368275	0,947372428	1,15262551	1,009638788	0,925511729
<i>Dusp22</i>	0,946899605	0,942625538	1,109036898	0,918792835	1,073485522
<i>Dph1</i>	0,968043287	0,913171046	1,043941075	0,865356582	1,049793931
<i>Gpsm1</i>	0,933684932	1,03319359	1,113113549	0,903049273	1,024383311
<i>Akr7a5</i>	1,078120366	0,855949277	0,781960694	1,003627706	1,154662492
<i>Abhd11</i>	1,058237833	0,966348752	0,758117354	0,981305526	1,132659277
<i>Myh7b</i>	1,022310509	0,837400142	0,731438118	1,016235875	1,01546978
<i>BC017643</i>	1,064789219	0,87632856	0,897565313	0,860075477	1,030332688
<i>Aacs</i>	1,118204124	0,860802399	0,959893455	0,851947489	1,000350577
<i>March9</i>	1,142191574	0,8345699	0,989142028	0,969499354	1,026246835
<i>Sgta</i>	1,092058265	0,942735746	0,932034974	1,011949265	1,031478013
<i>Jrk</i>	1,097343636	0,937938972	0,828759777	1,064086081	0,981363181
<i>Gstk1</i>	1,11149188	0,953291082	0,934097508	1,048665551	0,907971773
<i>Clec3b</i>	1,104585046	1,061492362	0,896463642	0,975625978	0,998504924
<i>Gm166</i>	1,03478181	1,045728358	0,843618284	0,952784636	0,928906908
<i>Ethe1</i>	0,955318004	0,960158894	0,88412782	1,108498339	0,977246247
<i>Bsn</i>	1,022333494	0,96234632	0,878826795	1,089911787	1,066847886
<i>Inpp5d</i>	0,747873021	1,006538066	0,891463886	0,905095885	1,047752705
<i>Amigo1</i>	0,721657342	1,006146551	0,934019802	0,920273929	1,07840514
<i>Snx9</i>	0,80888487	1,139734559	0,899464767	0,891414315	1,10932875
<i>Slc25a35</i>	0,703060638	1,017624895	0,873856434	0,945934721	1,159181092
<i>Tada1</i>	0,685242654	1,038983099	0,932204724	1,008466477	1,130109324
<i>Erp27</i>	0,739207815	1,014503824	0,948807349	1,017316532	1,219582759
<i>Apc2</i>	0,785469829	0,97907998	0,804039057	1,067573192	1,197595115
<i>Cln3</i>	0,838736383	0,938839237	0,831612532	0,999797641	1,160025814
<i>H2-Eb1</i>	0,845398626	0,957739875	0,795119517	1,021283693	1,035765253
<i>Zc3h4</i>	0,857416132	0,927462277	1,053031782	1,030623785	1,253778716
<i>Gm1604b</i>	0,846652459	0,988909775	1,078181265	1,050811775	1,257436464
<i>Rpusd3</i>	0,805595241	0,972786769	0,968737608	1,133895635	1,192975839
<i>Mettl21a</i>	0,828690807	1,111115816	1,031409989	1,105674045	1,30342668
<i>Nr4a3</i>	0,826355	1,040348796	0,982231192	1,045534481	1,313129472
<i>Acyp1</i>	0,889839458	1,074756256	0,958561412	0,968849155	1,208432121
<i>Atg16l2</i>	0,873210233	1,061820917	0,988077222	0,931804516	1,18168516
<i>Gdpd3</i>	0,826339131	1,00202103	0,945881471	0,947019218	1,205277325
<i>Mob3c</i>	0,786739627	1,113447896	0,90795805	0,966069018	1,2771844
<i>Casc1</i>	0,997827841	1,144424879	1,042208677	1,047810332	0,999316081
<i>Mfsd7b</i>	0,918521183	1,111921043	1,075532921	1,073979139	1,00848941
<i>Slc25a19</i>	0,88717372	1,114503236	1,043282735	0,959979644	1,000727251
<i>Tmem217</i>	0,921665855	1,189156107	1,075572041	0,961208777	1,005491431
<i>Msrb2</i>	0,892095177	1,202643316	1,07110612	1,044658952	1,009977488
<i>Taf3</i>	0,887804955	1,203024889	1,062141043	1,130824165	1,057768949
<i>Cmtm3</i>	0,853788701	1,283684641	1,028102056	1,033080487	1,024329764
<i>Lmln</i>	0,863491463	1,084373328	0,894957353	0,998238378	0,995708165
<i>Eid1</i>	0,81059427	1,094385984	0,971809912	1,025289399	0,987021786
<i>Map3k5</i>	0,899031375	1,166822917	0,935482892	1,101554825	1,030943544
<i>Abhd16a</i>	0,85708442	1,12561509	0,912990298	1,117775777	1,004343814
<i>Selp</i>	0,689467298	1,195273749	1,029340513	1,096087971	1,12472768
<i>Tnnc1</i>	0,691199381	1,18374408	1,073929886	1,106978039	1,105603184

<i>Rnf103</i>	0,727474077	1,224175321	1,086182449	1,179638195	1,087018961
<i>Mgrn1</i>	0,729369344	1,214507727	1,09721765	1,079205407	1,153980531
<i>Rb1</i>	0,767359751	1,175091702	1,142621333	1,063617075	1,132578077
<i>Fndc7</i>	0,75933677	1,146346997	1,068648468	1,056947739	1,135367348
<i>Cap2</i>	0,7840132	1,106495287	1,071096091	1,011430589	1,084414948
<i>Ipmk</i>	0,716668736	1,173664788	1,005705986	1,023946967	1,022014431
<i>Lass5</i>	0,898496658	1,055276679	0,956242376	1,077327738	1,161796231
<i>Xpot</i>	0,973276365	1,062378768	0,87598859	1,064829124	1,091822003
<i>Oit3</i>	0,971746353	1,054280645	0,927801571	1,196848007	1,08658448
<i>Caskin2</i>	1,006280914	1,007581402	0,956645883	1,03244447	1,171810266
<i>Gnmt</i>	1,108209352	1,001621245	0,987602133	1,072769914	1,120513667
<i>Tmem245</i>	1,054566152	1,030458948	0,987951627	0,952831443	1,127091415
<i>Tmco6</i>	1,066332107	1,091752028	0,967888461	0,975031894	1,094524494
<i>4933407K13Rik</i>	1,156195103	1,124338405	0,99052779	1,039164794	1,368255131
<i>Chmp6</i>	1,044621926	1,077768793	0,997855805	0,955643786	1,305365193
<i>Cdc25b</i>	1,228149962	1,126854844	0,914437259	0,94998541	1,215958745
<i>Rptor</i>	1,229854147	1,024440259	1,042577264	0,954787461	1,078228634
<i>Ndst1</i>	1,172006869	1,090763679	0,97828292	0,878746435	1,007972219
<i>Epas1</i>	1,229748055	1,014644352	1,027667879	1,058976256	1,038405307
<i>2900041M22Rik</i>	1,261915348	1,060890131	1,090260515	1,051999729	0,973713475
<i>Nt5c2</i>	1,218357483	1,153131521	1,110728858	0,984487981	0,95042476
<i>Pcnx</i>	1,16793225	1,135468638	1,154378437	0,97668691	0,989396378
<i>Smyd2</i>	1,205787896	1,163383709	1,176231841	0,990183188	1,095421115
<i>Senp1</i>	1,042047069	1,151994609	1,003915168	0,859239902	1,054003852
<i>Ddx28</i>	1,025859488	1,112654226	1,061207367	0,940615265	0,94120411
<i>Rabgga</i>	1,055785621	1,082148248	1,051339407	0,923247425	1,076321574
<i>Dcakd</i>	1,061738365	1,044044235	1,0929979	0,954795756	1,126825803
<i>Ucp3</i>	1,063772987	1,070109323	1,159885449	0,918339403	1,105557982
<i>Fam98c</i>	1,079984044	0,782285928	1,205682768	0,877984292	1,042238547
<i>Cdc42ep1</i>	1,128133582	0,844775465	1,295539558	0,917255994	1,145402763
<i>Pip5kl1</i>	1,134444064	0,940429422	1,159470413	0,850824779	1,192233461
<i>4833419F23Rik</i>	1,130982123	0,840699667	1,199398242	0,884064181	1,295325745
<i>Tmem229b</i>	0,997055816	0,806658679	1,103159659	1,017166584	1,294650061
<i>Fgfr1op2</i>	0,969235713	0,804337971	1,171104795	0,980135651	1,255356144
<i>Dot1l</i>	0,998838144	0,851985323	1,179170447	1,081324979	1,247875411
<i>Gna12</i>	0,918341495	0,833716358	1,186859814	0,96264905	1,16371963
<i>Agpat5</i>	1,003055985	0,936307491	1,044794418	1,029511619	1,123088836
<i>Mmp14</i>	0,955146644	0,892227425	1,02278122	1,079602025	1,165913359
<i>Rilpl1</i>	1,093688673	0,882566433	1,032193487	1,096111718	1,147834683
<i>Car9</i>	1,111287282	0,869459756	1,005087284	1,081578475	1,112068409
<i>Ddost</i>	1,099992237	0,867990242	0,912011706	1,052396295	1,263008934
<i>4833417C18Rik</i>	1,065909503	0,734487056	1,045665809	1,048390575	1,210420087
<i>Kank3</i>	1,094667904	0,796654153	1,004845498	1,032049043	1,183194858
<i>Dusp23</i>	1,025492854	0,739598783	1,020367739	1,033796428	1,112542501
<i>Arrdc2</i>	1,072401323	0,680184451	1,003448396	1,050782567	1,102153518
<i>Ndufs5</i>	1,169066235	0,730924719	1,06845965	1,119442677	1,094383172
<i>Usp21</i>	1,291071853	0,828828667	0,861668452	0,98842078	1,019765204
<i>2010011120Rik</i>	1,253031485	0,964863606	0,801216702	0,941702066	1,066107443
<i>Rad9b</i>	1,172186174	0,943451688	0,898080825	0,974345448	1,120577765
<i>1700001O22Rik</i>	1,203795597	0,921188848	0,955415824	1,016683873	1,073427342
<i>Ntn3</i>	1,37617929	0,944608803	0,855129581	1,026844383	1,221155643

<i>BC022687</i>	1,299397715	0,924554629	0,895099653	1,076710732	1,242470133
<i>A430105I19Rik</i>	1,260016503	0,915734475	0,881845291	1,199796019	1,178541587
<i>2310061I04Rik</i>	1,208244738	0,829022591	0,895535066	1,198474605	1,232900903
<i>Aldh3b1</i>	1,228950083	0,828142674	1,127368444	0,854686189	1,121304505
<i>Tulp1</i>	1,174194857	0,897453178	1,046653543	0,846770635	1,080293168
<i>Phf19</i>	1,274393572	0,904340056	1,049271735	0,863762319	1,137405541
<i>Nrtn</i>	1,350047103	0,852880414	1,074864579	0,848252949	1,114594237
<i>Scn4a</i>	1,189636445	0,929365529	0,921774939	0,864069091	1,058979385
<i>Gsr</i>	1,258890484	0,919756935	0,970502509	0,773931936	1,114161429
<i>Ttll12</i>	1,440340832	0,961493673	1,084618228	1,142661197	1,197607508
<i>Tmem143</i>	1,407321013	1,015737989	1,115416431	1,055033292	1,218350809
<i>Aurkb</i>	1,384302955	0,850327157	1,054389017	1,172300453	1,292664297
<i>Acadm</i>	1,457807963	0,923510113	1,013047495	0,924365889	1,138990659
<i>Mixl1</i>	1,4902749	0,90434846	1,017815416	1,06397017	1,102210543
<i>Ccdc117</i>	1,53644581	0,855893052	1,12501202	0,972630778	1,188557732
<i>Metrn</i>	1,471314242	1,085345958	1,041798194	0,899959967	1,283153774
<i>2410001C21Rik</i>	1,429845377	1,018942313	1,169655732	0,834198688	1,28433308
<i>Tbc1d22a</i>	1,450318835	1,072025546	1,187826577	0,914426053	1,105204433
<i>Palm</i>	1,441053921	1,02178474	1,121886568	0,936072057	1,092657866
<i>Ccdc164</i>	1,487569445	0,934945949	1,224967659	0,9268632	1,272352622
<i>Plin3</i>	1,491696176	0,974702594	1,246734209	1,050049411	1,29294017
<i>Fes</i>	1,290107081	0,831775168	1,136337258	1,046351641	1,310758624
<i>BC051628</i>	1,198855731	0,821957577	1,180209141	1,084659348	1,2489544
<i>Ssrp1</i>	1,178466933	0,922669849	1,225511101	1,194182609	1,304734123
<i>Mki67</i>	1,261955095	0,901842791	1,064321135	1,014136675	1,164180197
<i>Adamts14</i>	1,248808415	0,840023131	1,143250191	1,129761607	1,129967319
<i>C2</i>	1,186486384	0,97732662	1,182487905	1,037927309	1,098401843
<i>Gm5148</i>	1,27205245	0,950470058	1,191418427	1,100150848	1,13839436
<i>Map1lc3b</i>	1,254278858	1,081245125	1,164771401	1,094690066	1,33692034
<i>D030056L22Rik</i>	1,29782047	1,039463157	1,13756103	1,023708542	1,248065855
<i>Cnga1</i>	1,127986037	1,100559516	1,154093751	1,050262878	1,216989503
<i>Phf20</i>	1,096218662	1,059722958	1,22771249	1,030139281	1,192164357
<i>Phc2</i>	1,171619968	1,086150836	1,245716919	1,04734826	1,260852006
<i>P2ry12</i>	1,338803834	1,176796098	1,227144586	1,15410987	1,053954994
<i>Tor3a</i>	1,297791446	1,132031439	1,164518929	1,091383211	1,148015868
<i>Ptpra</i>	1,387043521	1,216078729	1,15232149	1,257721939	1,1063092
<i>Taf1c</i>	1,452544791	1,132104674	1,145526835	1,258289857	1,282848537
<i>E130306D19Rik</i>	1,414780508	1,175353014	1,104759769	1,348379964	1,285397882
<i>Mfrp</i>	1,145844337	0,883665726	1,099826115	1,470840272	1,218043358
<i>C1qtnf5</i>	1,145844337	0,883665726	1,099826115	1,470840272	1,218043358
<i>Hmgb2</i>	1,100003357	0,840003661	1,143984366	1,387818329	1,134318992
<i>Scgb3a1</i>	1,340589129	0,958125605	1,115810437	1,420146767	0,98603589
<i>Bambi-ps1</i>	1,65318688	0,910131249	0,884710415	1,418144212	1,116507432
<i>Nudt8</i>	1,508826195	0,617355775	0,795257877	1,221997515	1,286786329
<i>Ascl4</i>	1,473551838	0,794195062	0,664753082	1,11424498	0,908276978
<i>Gstp2</i>	1,540868851	0,935153036	0,762363867	1,219383566	0,876052271
<i>Ctsl</i>	1,020810431	0,853598312	0,87180217	0,826232804	0,837240583
<i>Pif1</i>	1,04415434	0,935384582	0,897900579	0,850318841	0,919261055
<i>Zfp280d</i>	1,077106527	0,903519284	0,811469899	0,737461483	0,834597189
<i>Gm16515</i>	1,068351748	0,858440668	0,853409937	0,642783354	0,836925753
<i>Arrb1</i>	1,058588502	0,679439225	0,902874996	0,722838689	1,038462257

<i>Armxc3</i>	0,990205084	0,758330806	0,901639288	0,707380416	1,103412993
<i>Rad23a</i>	0,969165037	0,716001368	0,918507482	0,80424933	1,020321989
<i>Slc29a3</i>	0,983836978	0,850487181	0,962204349	0,780268886	1,026808135
<i>Ubxn8</i>	0,969331761	0,793868014	0,9384575	0,793631352	1,055196972
<i>Ccdc40</i>	1,030901501	0,803257083	0,911240778	0,839495624	0,969765307
<i>Smarca4</i>	1,041013437	0,778963976	1,021938869	0,782132074	1,010418058
<i>Ybx2</i>	0,848971629	0,833685802	1,024327518	0,745159086	0,78243207
<i>Lrrc43</i>	0,827879072	0,827871204	1,019347491	0,650811897	0,821685112
<i>Aldh4a1</i>	0,854153577	0,818741181	1,011126726	0,813727657	0,866068534
<i>Best2</i>	1,019842069	0,812042379	1,031140356	0,669513889	0,82470136
<i>Slc25a27</i>	1,012648707	0,801447588	0,929242822	0,692791706	0,737143043
<i>Slc7a5</i>	1,003929484	0,748578581	0,924503991	0,768757994	0,856839717
<i>Ubl5</i>	0,965547546	0,68588945	1,115448588	0,814814167	0,73984308
<i>Gcnt3</i>	0,825638935	0,642819788	1,11332326	0,787949339	0,816275193
<i>Ms4a4d</i>	1,007280164	0,80339442	1,113378586	0,885571274	0,830334264
<i>1700008J07Rik</i>	1,115441856	0,766776789	1,095547384	1,053875078	0,720348813
<i>Neil1</i>	1,209729281	0,643841664	0,898567325	1,012117988	0,796512831
<i>Sertad3</i>	1,104684582	0,551354675	0,898992438	0,937959207	0,890186162
<i>Dtl</i>	1,282851057	0,985590669	0,888003891	0,762831597	0,751591905
<i>Sdccag8</i>	1,266236528	0,956679692	0,827194623	0,772242642	0,764949511
<i>Eef2k</i>	1,185524026	0,951421114	0,826408313	0,783332095	0,704671007
<i>Ccdc63</i>	1,250977585	0,947304928	0,923676981	0,725809568	0,677185663
<i>Rtn3</i>	1,26275833	0,915386179	0,884803684	0,788854464	0,877413994
<i>Ptch2</i>	1,268013497	0,880490973	0,830876425	0,801978587	0,837322686
<i>Necab3</i>	1,202851113	0,924658883	0,835121579	0,742170735	0,87283893
<i>Macrod1</i>	1,265925188	0,792533003	0,974131679	0,718364187	0,814319945
<i>Prps2</i>	1,262681037	0,766851104	0,987867833	0,792119325	0,749942443
<i>Vps33b</i>	1,240500182	1,065396014	0,869273914	0,718193616	0,705828951
<i>3830408C21Rik</i>	1,240821633	1,05262708	0,907749231	0,653117477	0,801860597
<i>Prkar2b</i>	1,144497079	0,952050451	0,852747147	0,65397373	0,761071866
<i>1700027J07Rik</i>	1,139859075	0,98520877	0,877218468	0,641646346	0,694903943
<i>Cdan1</i>	1,276365854	0,917306826	0,929141744	0,620690431	0,761561334
<i>Dhrs3</i>	1,29333173	0,977059543	0,921531735	0,633092575	0,70083759
<i>Tmem235</i>	1,27417179	0,907845914	0,849348165	0,603433856	0,682587916
<i>Zdhhc23</i>	1,144555762	0,877887306	0,884564391	0,844837439	0,639400829
<i>Gm10653</i>	1,120867506	0,843501681	0,956916508	0,764521019	0,595935514
<i>Ctdspl</i>	1,034378505	0,933920812	0,841428444	0,738164581	0,643725401
<i>Ppp1r14a</i>	1,011951183	0,856979779	1,008406536	0,790084183	0,648465745
<i>4933433C11Rik</i>	1,189853132	0,708524594	0,832350638	0,493807961	0,761408148
<i>Antxr1</i>	1,160917258	0,736665326	0,8395941	0,502044973	0,684882168
<i>Lamc1</i>	1,234376324	0,856655713	0,859044125	0,463396762	0,664920127
<i>Gm6498</i>	1,25710632	0,795683857	0,888612439	0,557428867	0,749799786
<i>Sdc1</i>	1,277572655	0,765288703	1,002900651	0,513949405	0,746898446
<i>Bahcc1</i>	1,261585189	0,636754453	0,773663664	0,606035437	0,73599214
<i>Rhbdd3</i>	1,236069102	0,7185571	0,79566771	0,570093491	0,681294102
<i>Pddc1</i>	1,174226393	0,665476994	0,820698233	0,577654752	0,789308805
<i>1700027F09Rik</i>	1,210969578	0,879951871	0,917497108	0,528727472	0,830515513
<i>Ccdc85c</i>	1,239019891	0,821307679	0,93736011	0,599809092	0,941351321
<i>Serf2</i>	0,734889277	0,717120833	1,000701221	0,708504333	0,590856445
<i>Sgcb</i>	0,896509727	0,680395813	1,003782897	0,894724804	0,617406658
<i>Repin1</i>	0,691683883	0,521364838	1,029803644	0,853203329	0,709903148

<i>A230020J21Rik</i>	1,042553599	0,631853131	1,056523328	0,874900485	0,398259761
<i>1190007F08Rik</i>	1,041882535	0,424843381	0,862003443	0,765744137	0,890070623
<i>Fadd</i>	1,038618376	0,524421726	0,911684917	0,622426204	0,913986433
<i>Cdk1</i>	1,035513827	0,435459092	0,85722005	0,482949678	0,745035981
<i>Pnpla1</i>	1,041686879	0,693067235	0,827329295	0,681790131	0,669458201
<i>4933407L21Rik</i>	1,000066405	0,650400697	0,926028645	0,534417653	0,68263758
<i>Asphd2</i>	1,131804379	0,559249854	0,998415872	0,714873449	0,638601987
<i>Art5</i>	1,351661932	0,911401399	0,596319911	0,994013942	0,418534051
<i>Mrps34</i>	1,294668939	0,978757602	0,540035904	1,061912952	0,555384717
<i>Rhov</i>	1,210871274	0,477251128	0,626445865	1,020179621	0,376732963
<i>Papss2</i>	1,327693691	0,970025978	0,80461957	0,492046375	0,669339727
<i>Ppm1e</i>	1,338941642	1,062762933	0,769661918	0,558457905	0,680909105
<i>Kmo</i>	1,371176074	0,932576865	0,810807469	0,522392069	0,519871834
<i>Dpep2</i>	1,455657717	0,911475265	0,76152226	0,560344649	0,558987458
<i>Tox2</i>	1,259945019	0,964323222	0,626223939	0,590862273	0,47442959
<i>Pla2g12a</i>	1,117415375	0,861019933	0,744184131	0,689479097	0,694545002
<i>Aldh16a1</i>	1,124956869	0,851407569	0,744143943	0,801978712	0,677118993
<i>Glt8d2</i>	1,211535806	0,810375083	0,83082981	0,704766163	0,664485211
<i>Erbp3</i>	1,087626487	0,789579789	0,647135196	0,743161594	0,727312803
<i>Al661453</i>	1,127949763	0,779492741	0,647445206	0,628553932	0,683253399
<i>Tle2</i>	1,260771314	0,917844115	0,743039528	0,643515782	0,812211352
<i>E2f8</i>	1,211802418	0,836205514	0,789298901	0,669195154	0,816697242
<i>Vars2</i>	1,317811112	0,928777142	0,663860064	0,681381403	0,77861486
<i>Bambi</i>	1,176673619	0,77748566	0,678737555	0,773262494	0,391262124
<i>Poll</i>	1,176055487	0,707231279	0,589249755	0,806703512	0,509438381
<i>Wdr12</i>	1,316074118	0,691219149	0,699248977	0,749371883	0,580745361
<i>Lonrf1</i>	1,259041329	0,776814369	0,73913316	0,711915305	0,580738361
<i>Psap1</i>	1,234229997	0,671848134	0,753013111	0,659009007	0,597017092
<i>Lrguk</i>	1,41163594	1,011010997	0,756063966	0,720818614	0,36604911
<i>Gm4371</i>	1,308233699	0,878771855	0,849893285	0,737682434	0,293332949
<i>Btrc</i>	1,010377339	0,857191017	0,731418059	0,664839856	0,530779613
<i>Mpp4</i>	1,014154357	0,992860291	0,753313731	0,545912258	0,487683948
<i>Slc38a11</i>	1,09886618	0,840463764	0,781479101	0,555347321	0,705438733
<i>Vps13d</i>	1,137386648	0,848162851	0,738092818	0,589470824	0,641216451
<i>Nhsl1</i>	1,137878634	0,844255043	0,84974727	0,588897853	0,675549596
<i>Rpap2</i>	1,095968569	0,897601479	0,84878717	0,60009116	0,648445319
<i>Tshb</i>	0,893186714	1,105347759	0,71857495	0,479088942	0,803481259
<i>Dll4</i>	0,96566304	1,229370798	0,777530195	0,789591574	0,543561376
<i>Scg3</i>	0,961908007	1,15971076	0,871513738	0,64675158	0,486074774
<i>Dapk1</i>	1,191958825	1,076396202	0,818123314	0,79969295	0,608732472
<i>5830403M04Rik</i>	1,106381005	1,034786736	0,791420443	0,7532886	0,53542225
<i>Sestd1</i>	1,233597262	1,036353753	0,760387511	0,724642428	0,509902736
<i>1700040I03Rik</i>	0,372443448	0,601346402	1,149869859	0,905191232	0,676303626
<i>Prdx2</i>	0,500050107	0,774497856	1,010718589	0,935788183	0,660290916
<i>H2-DMb2</i>	0,7747158	0,760117445	1,02408975	1,131594393	0,70078181
<i>Asgr1</i>	0,56000478	0,673979689	1,02964979	1,192315599	0,716583064
<i>ApoF</i>	0,626166278	0,284277134	1,356140986	1,377509	0,727084051
<i>G6b</i>	0,208389647	0,394846397	1,292511607	1,455733339	0,79255141
<i>1700013G23Rik</i>	0,88178809	0,539495816	1,307718474	1,334119282	0,438048617
<i>Ctxn1</i>	0,908520533	0,65020164	1,223727559	1,203505596	-0,198648369
<i>Duoxa1</i>	0,293623868	1,281555827	1,231771205	0,725042432	0,94768904

<i>1700063O14Rik</i>	0,514118393	1,355557474	1,084751517	0,723225401	0,944365381
<i>1700058G18Rik</i>	0,625845982	1,148274043	1,22410655	0,583700678	0,941909872
<i>Cd84</i>	0,458881586	1,135727301	0,953674221	0,942628087	1,067134824
<i>0610037P05Rik</i>	0,448151049	1,119170684	0,964785441	0,987585266	0,999769922
<i>Crot</i>	0,487651406	1,178112994	1,051905804	0,974291113	1,045127741
<i>Senp3</i>	0,524486629	1,143906676	1,072223992	1,018660131	1,080806921
<i>Tpp1</i>	0,399504399	1,297441941	1,102087253	0,951270599	1,080403332
<i>Al450353</i>	0,734528569	1,322877704	1,033498506	0,933625894	0,962838233
<i>Calr4</i>	0,609093432	1,448349048	0,930555794	1,021801881	0,946538392
<i>Cd83</i>	0,699173246	1,207173935	1,098046217	0,852157496	1,055021753
<i>Rfxap</i>	0,584093121	1,199406387	1,16017592	0,837865948	1,000186536
<i>Hnrnpa0</i>	0,650503488	1,081390319	1,196590009	0,955558703	1,062482195
<i>Dynlrb1</i>	0,594275845	1,057160587	1,144252758	0,859369544	1,113655119
<i>Rpl37a</i>	0,614513276	1,165898274	1,172302937	0,992955713	0,926010599
<i>Chrna9</i>	0,660205086	1,25727126	1,317620286	0,953125381	0,985163836
<i>Rsph3a</i>	0,646429328	1,063315492	1,123746863	0,715654017	1,074918948
<i>Psmg4</i>	0,653013131	1,034444563	1,218846181	0,717765346	1,075756625
<i>Syde2</i>	0,655588311	0,964265142	1,140934001	0,667519559	0,990479502
<i>Eaf1</i>	0,700999765	1,008417998	1,304221833	0,771811849	1,047167412
<i>Prss32</i>	0,758651946	1,084430933	1,15448106	0,843684667	0,892390787
<i>Runx2</i>	0,723311061	1,02594789	1,013182847	0,790140122	1,041152422
<i>Bzrap1</i>	0,697114336	0,960384692	1,009811393	0,832452927	1,070817916
<i>Epb4.1l2</i>	0,771737909	0,972131274	1,038884956	0,821514776	0,942786995
<i>2310044G17Rik</i>	0,762670723	0,911163424	1,094103505	0,775218562	1,064081095
<i>Trim47</i>	0,792900321	0,981248812	1,121577615	0,78174431	1,063891633
<i>Rsph3b</i>	0,778217657	0,966993217	1,085927056	0,719463431	1,009872399
<i>Itpka</i>	0,633593415	1,060215831	0,985842688	0,746220683	0,815621757
<i>Gprc5b</i>	0,502448911	0,934701671	1,046446373	0,820733261	0,814541983
<i>Lad1</i>	0,603917743	0,981975089	1,226247114	0,731105023	0,760119697
<i>Lztfl1</i>	0,612126269	1,205097684	1,002910205	0,751776299	0,616802404
<i>2010310C07Rik</i>	0,573745832	1,017544284	0,91564082	0,66817338	0,604549024
<i>Hap1</i>	0,759192162	1,022615755	0,829302004	0,696141439	0,848087793
<i>Astl</i>	0,602235458	1,015533741	0,798331629	0,76350709	0,896362502
<i>BB283400</i>	0,673730901	1,131039042	0,807774225	0,78386402	0,759817591
<i>Cmya5</i>	0,785149394	1,07364249	0,865585782	0,808193013	0,734673156
<i>Ptpn18</i>	0,585321762	1,049439947	0,928278009	0,988129742	0,879066131
<i>Baz2b</i>	0,663521046	1,011246226	0,904236548	0,954693359	0,874939835
<i>Prkca</i>	0,668132513	1,057657944	0,996750067	0,965016941	0,964868459
<i>Camk1d</i>	0,713999551	1,082400607	0,956538773	0,94055052	0,912811611
<i>Mfsd4</i>	0,377941381	1,153266946	0,894406664	0,996105138	0,828097184
<i>Tacc2</i>	0,367417062	1,189036008	0,878516074	0,921464387	0,761348037
<i>Rbm45</i>	0,353941508	1,115102452	0,7813285	0,921051433	0,807250838
<i>Pex7</i>	0,527410334	1,086954906	0,841264836	0,925461803	0,689530739
<i>1700063D05Rik</i>	0,558872138	1,010090145	0,890479493	0,915375784	0,708966986
<i>Mdfic</i>	0,437351672	1,039812108	0,894665818	0,739234012	0,740294232
<i>Armcx2</i>	0,307250729	1,089915852	0,970664987	0,71102719	0,84505521
<i>Secisbp2l</i>	0,812265134	1,032027893	0,875746672	0,984920701	0,854912966
<i>Dtnbp1</i>	0,825562068	1,006701139	0,927671068	0,947512269	0,888999121
<i>Micu1</i>	0,77405559	1,011309533	0,90016702	0,919949821	0,81888167
<i>Ubr7</i>	0,840466471	1,077843717	0,94354248	0,939752459	0,857730787
<i>Cyp2d22</i>	0,783755507	0,984530189	0,96692824	1,053669829	0,904756967

<i>Vegfb</i>	0,929396222	0,988551363	0,859740337	1,090539669	0,803712457
<i>Foxh1</i>	0,938303206	1,050435221	0,925784566	1,01873825	0,773109593
<i>Kcnj9</i>	0,707177032	1,188067098	0,751333986	1,083354053	0,78005054
<i>Sys1</i>	0,762570788	1,058669461	0,778757536	1,147474794	0,752937082
<i>Lysmd2</i>	0,847431879	1,182335858	1,071065747	0,944848647	0,816987489
<i>Tm2d3</i>	0,779784883	1,145637242	1,095149106	0,982097668	0,864192106
<i>Neu4</i>	0,714518991	1,243907239	1,112626987	1,041585049	0,732761563
<i>Ier5</i>	0,776937509	1,031918567	1,064750363	1,049007124	0,636377189
<i>Pik3c2b</i>	0,70005279	1,049257202	1,021864066	0,980215624	0,773557746
<i>Bod1</i>	0,506228784	1,007007673	0,965202549	1,182243818	0,670942814
<i>Dclre1a</i>	0,372478456	0,906609586	0,923565097	1,20909826	0,81960081
<i>Arhgap31</i>	0,548552244	0,97752516	0,892771714	1,089717783	0,770666929
<i>2610021K21Rik</i>	0,454505469	0,950516906	0,866305231	1,016831472	0,773784417
<i>Gng12</i>	0,465235973	1,079300363	0,868956866	1,017759685	0,803956596
<i>2400001E08Rik</i>	0,429336486	1,117501943	0,852339109	1,120127824	0,841217183
<i>Gm7616</i>	0,518827716	1,026669204	1,198712328	1,143166752	0,677840206
<i>Prnd</i>	0,449089476	1,105873563	1,160890545	1,242653998	0,654035251
<i>Cd40lg</i>	0,463756439	1,762833762	1,234602713	0,65748781	0,904301757
<i>A630066F11Rik</i>	0,44033473	1,434578985	1,062027684	0,553062676	0,670760592
<i>Shc1</i>	0,666947827	1,133582967	0,645300463	0,956168261	1,110594626
<i>Tmod4</i>	0,756016506	1,132765091	0,560530688	0,902544724	0,999655508
<i>Ly6a</i>	0,773542702	1,328927338	0,616632625	1,029966548	0,964814685
<i>Tmem95</i>	0,887998346	1,022335857	0,479449915	0,755266378	1,076578012
<i>Hspa1a</i>	0,923726743	1,075112011	0,4319303	0,709118419	0,960029839
<i>Gm17769</i>	1,047267079	1,141773589	0,60390635	0,669392723	1,059336545
<i>Lass1</i>	0,855201167	1,010323562	0,855614589	0,835473771	1,241356543
<i>Gdf1</i>	0,855197015	1,010324215	0,856434441	0,835471939	1,241354882
<i>Tmem91</i>	0,822312657	1,015604446	0,858870498	0,841716832	1,229150408
<i>Tst</i>	0,884618171	1,0110439	0,929452669	0,779199544	1,206696777
<i>Gm9776</i>	0,851725718	1,105363068	0,910786636	0,667145821	1,211490884
<i>Snhg7</i>	0,876956661	1,131287857	0,702203715	0,829912125	1,288330187
<i>Lxn</i>	0,940524161	1,236020934	0,815546566	0,837837695	1,243301618
<i>4933439C10Rik</i>	1,145206701	1,29923678	0,905530608	0,760180172	1,052832781
<i>Msl3l2</i>	1,141958066	1,244760663	0,801504222	0,810617322	1,196160532
<i>Abtb1</i>	1,0876957	1,097118327	0,873413023	0,77045793	1,141152479
<i>Ccdc142</i>	0,968679129	1,152970613	0,78148259	0,819888035	1,071126994
<i>Smo</i>	0,789651555	1,067305801	0,79280556	0,889831657	0,547767274
<i>Slc22a17</i>	0,735631546	1,046113644	0,837156277	0,916657897	0,588882415
<i>Swap70</i>	0,677493914	1,151528768	0,779959516	0,941367036	0,620559184
<i>Hbegf</i>	0,681076974	1,214840716	0,613330644	0,981283967	0,495179918
<i>Cxcr1</i>	0,776412483	1,107774621	0,677247701	0,996358787	0,462996607
<i>Vgf</i>	0,754642694	1,365301803	0,660964648	0,679852516	0,499055818
<i>Etv5</i>	0,741876581	1,341415289	0,843910371	1,048454829	0,602458757
<i>4921515J06Rik</i>	0,792245792	1,353547713	0,887119514	1,001561775	0,614231393
<i>4921511I17Rik</i>	0,848610121	1,184308901	0,829404598	1,056897574	0,651265415
<i>Hpn</i>	0,869368004	1,470422407	0,883488829	0,97755079	0,73907263
<i>Trp53inp2</i>	0,959622444	0,932744256	1,223470135	0,581675842	0,972478589
<i>Gm19434</i>	1,117649521	0,831156274	1,18958639	0,658777648	1,014542528
<i>Nxt1</i>	1,013170343	0,894071677	1,312841916	0,741446356	0,858591621
<i>Cbx2</i>	0,995214747	0,907600288	1,375967427	0,717515107	0,979846636
<i>Zdhhc19</i>	1,027693885	1,014841842	1,082323537	0,642194483	0,762847219

<i>Tsen2</i>	0,969999994	0,926766844	1,046507854	0,625409957	0,881192639
<i>Utp14b</i>	0,96639291	0,969647184	1,159405473	0,752336793	0,851943572
<i>Pcgf1</i>	0,925361161	0,918559214	1,211255003	0,701909335	0,823996478
<i>Mettl6</i>	0,994308389	0,906733983	1,175518256	0,577937645	0,725526528
<i>Mafb</i>	1,163797036	1,183673199	1,423762551	0,549876605	0,737174081
<i>Ttc30a1</i>	1,055487024	1,17599472	1,488059651	0,731504231	0,925934624
<i>Camkk1</i>	1,138664699	0,999564688	0,929851107	0,572937799	0,96842364
<i>Gm12409</i>	1,095781354	1,073979936	0,936614688	0,693855381	1,020065432
<i>Mthfd1l</i>	1,13142049	0,912707937	1,05079815	0,719437503	1,048900833
<i>Igf2bp2</i>	1,143721643	0,870688893	0,974267773	0,685038237	0,948385264
<i>1300002E11Rik</i>	1,192298986	1,132042332	1,034582465	0,563840149	0,932499043
<i>Cchcr1</i>	1,202969029	1,053557801	1,15639195	0,576166939	0,781104243
<i>5430411K18Rik</i>	1,249683187	0,956410575	0,947421867	0,763574435	0,861429488
<i>Zfp746</i>	1,214852607	0,926123925	0,950043858	0,826477717	0,853769079
<i>Sipa1l3</i>	1,268154287	1,007240342	0,96797863	0,815924424	0,841428299
<i>Ept1</i>	1,238785653	1,003135977	1,001420423	0,759834375	0,936062003
<i>Syk</i>	1,207972915	1,019391703	1,022333518	0,76455588	0,891306405
<i>Tnfrsf8</i>	1,144419688	0,963142206	0,970286593	0,768329318	0,772758769
<i>Tspan2</i>	1,176617878	0,923689161	1,025486746	0,751801819	0,784744936
<i>Zbed4</i>	1,128651063	0,910326376	0,944071051	0,797655851	0,858978313
<i>Pafah2</i>	1,142054947	1,064119494	0,968603645	0,758941353	0,840527146
<i>Slc44a3</i>	1,18874233	1,078547593	0,967625835	0,71722638	0,792643497
<i>Ergic1</i>	1,025968371	1,087883002	1,003249024	0,842299969	0,89246587
<i>S1pr2</i>	1,084502003	1,015178112	0,964103615	0,854952173	0,880984523
<i>Amhr2</i>	1,064086365	1,075098395	1,087852942	0,765880269	0,902709128
<i>Eif2b4</i>	1,120885657	0,970561096	1,089857049	0,901370918	0,892289892
<i>C330011F03</i>	0,875844526	1,184976444	0,95750102	0,741470378	1,003228189
<i>1600002K03Rik</i>	0,759283672	1,212052766	1,052777692	0,680333201	0,896298618
<i>BC025920</i>	0,941703072	1,247876657	1,162820325	0,756959535	0,865339142
<i>Galr3</i>	0,894729283	1,269438979	0,952684373	0,443607269	0,902022585
<i>Rab13</i>	0,923241201	1,219324531	1,001921253	0,585945669	0,802523936
<i>1700102H20Rik</i>	0,849242493	1,260199897	0,942304083	0,574186681	0,896435676
<i>Krtcap2</i>	0,897692365	1,275081425	0,989964368	0,616461868	0,998339864
<i>Dnlz</i>	1,133102924	1,394427657	1,065034067	0,434495085	1,139118513
<i>Prnt1</i>	1,086435918	1,038861698	0,876597903	0,274648841	0,670217933
<i>Tmem106c</i>	1,102310217	1,061900882	1,061749243	0,341918445	0,507334842
<i>Arhgap20</i>	0,875532441	0,915683385	1,019913532	0,393339553	0,523809556
<i>Sh2d5</i>	1,035166582	0,623216365	0,983339821	0,466533677	0,848067554
<i>Fgf8</i>	1,059202332	0,799240375	1,000038531	0,526688527	0,883537717
<i>Use1</i>	1,091931063	0,635589135	1,207627877	0,351040654	0,809350056
<i>Abca2</i>	0,995049503	0,655770523	0,839688598	0,721476071	1,274112483
<i>1110038B12Rik</i>	0,850156153	0,688456393	0,775094024	0,676387656	1,286279725
<i>Tmem147</i>	0,928403804	0,496208179	0,625780842	0,696507484	1,266278665
<i>Nhlrc4</i>	0,846585051	0,554763828	0,662264986	0,744192638	1,250679328
<i>Fam173a</i>	0,961588601	0,454774014	0,628495537	0,57270285	1,438557288
<i>Lrrc10</i>	1,065724048	0,60896835	0,64849955	0,704161016	1,416050857
<i>Pycr1</i>	0,926425577	0,349407192	0,833999486	0,679954413	1,289384116
<i>Zfp747</i>	1,12112912	0,216221669	0,8260189	0,587541872	1,400082743
<i>Pdcd5</i>	0,586520718	0,498979754	0,882651265	0,623852314	1,136275665
<i>A230050P20Rik</i>	0,600401596	0,439904314	0,852468903	0,540983886	1,254604543
<i>Timm8a1</i>	0,478622066	0,540588757	0,895497423	0,495481279	1,164745836

<i>Tmem198b</i>	0,678094761	0,501411155	0,907874953	0,44677073	1,011424889
<i>Efcab4b</i>	0,644901393	0,432441378	0,853829024	0,371223768	1,12996251
<i>Plekhj1</i>	0,687890455	0,309852595	1,036887435	0,625292778	1,137055143
<i>4930465K10Rik</i>	0,718607916	0,342938379	0,856208899	0,781634345	1,133978621
<i>Tysnd1</i>	0,774588014	0,382421659	0,684992109	0,345679571	1,15984548
<i>Mars2</i>	0,848440444	0,403971251	0,664373315	0,317356764	1,160558441
<i>Neurl2</i>	0,911624105	0,386814956	0,935186964	0,401100155	1,168564463
<i>Tlr9</i>	0,640943505	0,368164075	0,824900392	0,319706183	1,29999027
<i>Gm5475</i>	0,799704571	0,656260967	0,642867122	0,491752945	1,146985442
<i>Ankrd13d</i>	0,833014116	0,579031303	0,659775283	0,618580264	1,197781296
<i>Cenpm</i>	0,867594409	0,599577539	0,656435857	0,52732131	1,004172081
<i>Tas1r3</i>	0,903949023	0,561580598	0,73668001	0,583315313	1,031129085
<i>Galns</i>	0,798661965	0,617254394	0,830886707	0,517205609	1,118077271
<i>Bace1</i>	0,759722983	0,548777172	0,758128132	0,389055657	1,109025832
<i>H2afy3</i>	0,705950249	0,7609622	0,757289108	0,459397761	1,130684501
<i>Gba</i>	0,782846166	0,751468512	0,588536534	0,543049026	1,036491853
<i>Pycrl</i>	0,741895031	0,400707803	0,74802003	0,687118202	1,083896979
<i>Rfx2</i>	0,745897904	0,421274644	0,678506995	0,589165574	1,010833705
<i>C230052I12Rik</i>	0,770257633	0,542736798	0,767838345	0,650274592	1,076760923
<i>Ipo4</i>	0,690017025	0,491066436	0,565984875	0,682363376	1,045059677
<i>Kcnh6</i>	0,691445313	0,49707882	0,654476829	0,616213882	1,133296848
<i>Cdc14b</i>	0,625605745	0,506668894	0,68395657	0,741134706	1,109806714
<i>Tsta3</i>	0,619881871	0,497912687	0,656066017	0,654514767	1,076393168
<i>Odc1</i>	0,549258824	0,634731206	0,499259719	0,464856022	1,195144996
<i>Klf11</i>	0,643695201	0,622566634	0,53125897	0,576465599	1,213606246
<i>3110056O03Rik</i>	0,748814393	0,539412344	0,502260491	0,414104284	1,010137457
<i>Tspo2</i>	1,04717324	0,696691266	0,405414646	0,552632816	1,105186855
<i>5430437P03Rik</i>	0,944962504	0,650393945	0,518090043	0,677482269	1,021320584
<i>Tmem30b</i>	0,998142146	0,674150378	0,292126953	0,745639482	1,143666148
<i>Lefty1</i>	0,916250007	0,529757253	0,494780575	0,528029652	1,258371633
<i>Cdc20</i>	0,88780531	0,406205755	0,314482287	0,633980047	1,142543322
<i>Alad</i>	0,904863352	0,907741918	1,081515603	0,803984912	1,139907912
<i>2410131K14Rik</i>	0,915651605	0,946728125	1,043467148	0,796452974	1,146011339
<i>Foxr1</i>	0,902720751	0,932395011	1,034400175	0,758356061	1,094129629
<i>Cdk6</i>	0,99148478	0,897187143	1,06036491	0,738373464	1,061529737
<i>Acox1</i>	0,965489786	0,929695248	1,035967681	0,683959478	1,049281681
<i>Arl3</i>	0,987671194	1,033223272	1,078604562	0,673565475	1,163794622
<i>Dmwd</i>	0,944276603	0,868902794	1,052800782	0,626100778	1,201377651
<i>Plekhg3</i>	0,944044474	0,807263206	1,050774529	0,684565764	1,241005863
<i>Hgsnat</i>	0,89704524	0,819846247	1,150453433	0,660395432	1,104059708
<i>Kif20a</i>	0,881681448	1,028592428	0,913519209	0,803764299	1,077860107
<i>Mrps11</i>	0,894838826	1,04273871	0,947952736	0,764722345	1,021075869
<i>Slc39a13</i>	0,848293854	0,970029702	0,988580664	0,815953726	1,034201445
<i>Hemgn</i>	0,806091581	1,017763923	0,993883732	0,771337881	1,040448014
<i>Phgdh</i>	0,83980605	1,006607655	0,854638616	0,784501192	1,059297196
<i>Srcrb4d</i>	0,870519166	0,952015029	0,943825401	0,67831326	1,121644036
<i>Tcp11</i>	0,982566337	1,029420796	0,942649994	0,704371695	0,96254373
<i>Jub</i>	0,936787272	1,085415773	0,979947982	0,635172716	0,980569631
<i>Pip4k2c</i>	0,819842827	0,751312171	0,831146653	0,64252891	1,144122051
<i>Sirt4</i>	0,843489557	0,804351823	0,771467208	0,637813175	1,179334292
<i>C8g</i>	0,797758219	0,891058123	0,784157292	0,651497531	1,165114472

<i>Tssk1</i>	0,703182034	0,804230233	0,840229365	0,574349319	1,288165243
<i>9130019O22Rik</i>	0,96614408	0,857838052	0,81692403	0,650560891	1,32838706
<i>Stac3</i>	0,92757273	0,903826645	0,855870252	0,485110982	1,29276447
<i>Ccdc96</i>	0,914720839	0,606226009	0,941711115	0,672209899	1,124511367
<i>Tlr2</i>	0,898723001	0,574860625	0,999103405	0,64359492	1,159230699
<i>Slc16a13</i>	0,857762738	0,534267005	0,91783353	0,612070429	1,095592988
<i>Atp2a1</i>	0,908855622	0,693238816	1,036267008	0,462782862	1,063217753
<i>Scyl1</i>	0,839379536	0,775375126	0,86975829	0,641897418	1,044877487
<i>Tarbp2</i>	0,786517425	0,751622616	0,987538022	0,591349224	1,105426368
<i>Rogdi</i>	1,124308496	0,5854136	0,896233839	0,535196091	1,105105292
<i>Rps6kl1</i>	1,148226128	0,789234073	0,909336098	0,483669569	1,101758597
<i>Tubg1</i>	1,042389552	0,710922295	0,758198524	0,46690968	1,189012642
<i>Fbxl15</i>	1,11285231	0,794498697	1,02151184	0,694174007	1,362292385
<i>Mrpl38</i>	1,005596128	0,65846637	1,009359117	0,579205307	1,43647193
<i>Ncapd2</i>	0,926563817	0,700846005	1,006680385	0,747623893	1,297101564
<i>Flii</i>	0,880286571	0,708835185	1,009766018	0,812392345	1,242703596
<i>Ninj1</i>	0,948773481	0,652832772	0,929672111	0,846446438	1,273368521
<i>Ccdc94</i>	0,691913222	0,80552151	0,782236283	0,800232424	1,260275
<i>Ccdc61</i>	0,732644315	0,717971184	0,832124828	0,729921059	1,209138255
<i>Zdhhc24</i>	0,70004121	0,620653788	0,855029508	0,903638403	1,322115654
<i>Soat2</i>	0,716569054	0,668070204	0,822514856	0,835449264	1,277689913
<i>Zfp12</i>	0,626159828	0,634174554	0,909196905	0,79099675	1,225765118
<i>Llgl2</i>	0,648961279	0,689331144	0,933654882	0,84220198	1,260804506
<i>Polr3h</i>	0,673292989	0,652178812	1,013943065	0,785566609	1,196250107
<i>Mrpl19</i>	0,65976225	0,532139172	0,733094754	0,862394025	1,187160362
<i>Lrwd1</i>	0,746086521	0,483836122	0,757563877	0,773006194	1,286446664
<i>Limk1</i>	0,596949091	0,599996515	0,817436071	0,747570621	1,199637414
<i>Pabpc4</i>	0,583333385	0,586465028	0,733610956	0,739969792	1,26844678
<i>4921530D09Rik</i>	0,767832086	0,649506245	0,817582212	0,901989883	1,214303709
<i>Gpd1l</i>	0,713526651	0,690041963	0,858503327	0,885360404	1,138828624
<i>Ell</i>	0,870914578	0,735210562	0,930859878	0,872348601	1,144967938
<i>Kdelr1</i>	0,827435813	0,674661581	0,897022688	0,858831512	1,073751289
<i>Fam132b</i>	0,883131573	0,639223584	0,845118328	0,888388684	1,166801784
<i>Sepn1</i>	0,886716137	0,620343182	0,810567124	0,836068747	1,188280866
<i>Zbtb42</i>	0,92902268	0,691236343	0,816629632	0,852121448	1,232988141
<i>C530028O21Rik</i>	0,816331798	0,846657619	0,806680586	0,871322681	1,294215057
<i>2410004P03Rik</i>	0,801797403	0,827496284	0,83468634	0,892973181	1,315367658
<i>Klhl36</i>	0,861468799	0,82379967	0,758464214	0,811577442	1,25792083
<i>Coasy</i>	0,828064456	0,751882895	0,706584839	0,990328876	1,289111081
<i>3110002H16Rik</i>	0,672837576	0,658089274	0,819844552	0,804107204	1,06145979
<i>Rtcd1</i>	0,645943012	0,67281496	0,772226569	0,838164207	1,003878039
<i>Flcn</i>	0,541351724	0,736643605	0,701203128	0,755661422	1,022550149
<i>Gusb</i>	0,529409462	0,704807897	0,69039453	0,760999703	1,00378097
<i>Inpp5e</i>	0,691072259	0,633032346	0,603117574	0,842313764	1,058403478
<i>Stoml2</i>	0,604312781	0,667760688	0,666055781	0,909351738	1,072175468
<i>Nomo1</i>	0,793413006	0,650616588	0,695747639	0,698665714	1,0032416
<i>Sars2</i>	0,744941417	0,614819865	0,741631086	0,730018177	1,006553036
<i>5031425F14Rik</i>	0,781670675	0,700829523	0,776133211	0,749585999	1,006399114
<i>1110021J02Rik</i>	0,876884575	0,639307011	0,778504	0,729208958	1,037279599
<i>Triap1</i>	1,014160886	0,697423124	0,783846915	0,626188324	1,074657863
<i>Apitd1</i>	0,972322664	0,647175974	0,763874197	0,645006668	1,023793064

<i>Prkcd</i>	0,881203008	0,811180376	0,853949678	0,788343757	1,007678035
<i>Gns</i>	0,933413818	0,848584306	0,857413843	0,842196027	1,048467036
<i>Ankrd24</i>	0,853377799	0,832366714	0,718228079	0,802840755	1,042032791
<i>Plcb3</i>	0,887059864	0,923897939	0,736833783	0,881092065	1,06997778
<i>Tmx2</i>	0,841464761	0,883039363	0,713576175	0,884392996	1,154626911
<i>Tmem41a</i>	0,913601726	0,871333058	0,807684308	0,923516427	1,162584078
<i>P2ry13</i>	0,881523754	0,980466265	0,698312823	0,700458619	1,029977851
<i>Lmnb2</i>	1,002319121	0,835938396	0,656847028	0,795743752	0,954587998
<i>Zfand2b</i>	0,59421551	0,7686231	1,300732583	0,839927661	0,96914226
<i>Celf5</i>	0,536833373	0,841272424	1,303128497	0,807269065	1,149009763
<i>Hspbp1</i>	0,660174164	0,778544623	1,212419568	0,843448754	1,072730888
<i>Usp22</i>	0,711586912	0,788032151	1,165617809	0,81744543	1,179027722
<i>Agpat9</i>	0,690095411	0,616016843	1,178536653	0,903166203	1,167272488
<i>Alyref</i>	0,639375272	0,658294018	1,258962869	1,035603222	1,040228502
<i>Mrpl18</i>	0,575916233	0,764332856	1,454502829	1,00942486	1,089684867
<i>Mycn</i>	0,944743745	0,633754757	1,538528422	0,541888356	1,033689859
<i>Ocstamp</i>	0,775628164	0,356296318	1,143518906	0,924426698	1,077818828
<i>Mmp11</i>	0,778383298	0,450740981	1,032536687	0,885061068	0,980992769
<i>2810428/15Rik</i>	0,882799471	0,446155282	1,049703051	1,015446056	1,136695472
<i>Ppm1n</i>	0,828121126	0,353932558	1,220458866	1,056857012	0,996005638
<i>Itgax</i>	0,770067317	0,69920468	1,002011389	0,815723243	0,977974498
<i>Scarf1</i>	0,711555586	0,687517134	1,012590066	0,936431699	1,022468808
<i>Mrpl28</i>	0,691814885	0,699983144	1,107019089	0,959396345	0,90634734
<i>2900002K06Rik</i>	0,864471629	0,599232118	1,03686733	0,901481891	0,867764518
<i>Mcrs1</i>	0,885265927	0,609374583	1,003110001	0,951790074	0,939404633
<i>Rbm19</i>	0,908379348	0,693637747	1,182983463	0,736242034	1,210897151
<i>Ceacam16</i>	0,918788823	0,673459159	1,127109697	0,749900949	1,118149353
<i>Tmem161a</i>	1,000967582	0,676779856	1,048244423	0,84329995	1,121144184
<i>Gm505</i>	1,005230644	0,619623735	1,224903116	0,710989282	1,033350161
<i>Foxj1</i>	1,092561801	0,621223315	0,982710354	0,960426889	1,007802829
<i>Cdhr5</i>	1,018319601	0,565566193	0,999078618	0,945858842	1,041367866
<i>Lrrc25</i>	1,028909708	0,534320977	1,101257433	0,992493192	1,021617801
<i>1700021N21Rik</i>	1,162515667	0,591040977	1,087253338	0,827640421	0,946383163
<i>Gm7325</i>	1,269609871	0,454016299	1,349633841	0,965065985	1,040910655
<i>Islr</i>	1,073667572	0,432286676	1,453598064	0,772673878	1,296224782
<i>Atp5e</i>	1,05783284	0,416646959	1,400216937	1,003568914	1,464954212
<i>Cyc1</i>	1,0147318	0,32428805	1,251461986	1,062410427	1,463647334
<i>Zscan12</i>	0,361213414	0,918188827	0,840454934	0,749631009	1,189036117
<i>Was</i>	0,386116793	0,923733718	0,95531133	0,635017961	1,120742087
<i>Uqcrh</i>	0,320665148	0,939227726	0,935202163	0,796102666	1,061220306
<i>Rc3h1</i>	0,291708439	0,902517905	0,914461084	0,79052648	1,139950274
<i>Ltb4r1</i>	0,243073371	0,937960177	1,003724694	0,740582701	1,073890576
<i>Ddt</i>	0,280279765	1,193918511	0,906640483	0,709662884	1,212780763
<i>Cldn7</i>	0,401935181	1,22671748	1,009966174	0,715076633	1,276457645
<i>Epha1</i>	0,481873737	0,925466184	0,995099117	0,611027024	1,391715342
<i>Kazald1</i>	0,418550937	0,930143986	0,956491855	0,657668533	1,315084906
<i>4933416M07Rik</i>	0,414672148	1,07668706	0,872362704	0,533041277	1,267742743
<i>Tmem79</i>	0,649436743	1,104285033	0,973476576	0,583609556	1,328827923
<i>Gabbr1</i>	0,568567536	0,824995464	0,746531275	0,402552463	1,01716662
<i>Gm216</i>	0,453077165	0,771752806	0,760441821	0,416548821	1,037987264
<i>Olfr750</i>	0,435527662	0,889569402	0,880890453	0,437332866	1,023018858

<i>Armc5</i>	0,433424393	0,798834692	0,781527908	0,57697254	1,061398605
<i>Alg2</i>	0,481414085	0,75173168	0,800737063	0,500438339	1,173655143
<i>Sdf2l1</i>	0,518096721	0,859487116	0,768109533	0,308726999	1,257928515
<i>Actr1b</i>	0,531785345	0,82058234	0,682707754	0,466746584	1,22387306
<i>Pfn4</i>	0,700348904	0,957528092	0,856656076	0,4652008	1,077303676
<i>Hipk4</i>	0,686731888	0,80656652	0,980215139	0,375743559	1,197226484
<i>Wdr31</i>	0,618107907	0,873998964	0,999952962	0,909720691	1,130702982
<i>Agbl5</i>	0,635535184	0,859813452	0,96923523	0,906139852	1,158779914
<i>1700054N08Rik</i>	0,60683269	0,887079599	0,984177921	0,85461988	1,183425455
<i>Nfu1</i>	0,66441097	0,859110429	0,951872552	0,814326795	1,109921818
<i>lqce</i>	0,596682722	0,729164213	1,022194169	0,815002266	1,14593115
<i>l830077J02Rik</i>	0,607930849	0,723863181	1,016850895	0,839647181	1,113109501
<i>Hdac4</i>	0,617936568	0,743070096	1,042711197	0,807876468	1,185701774
<i>Dek</i>	0,589927252	0,788777669	1,09845784	0,819506272	1,134606351
<i>Ccdc101</i>	0,540223059	0,864933765	0,989160356	0,782167481	1,014437863
<i>Rapgef4</i>	0,596875834	0,903164897	1,021443324	0,847099782	1,000692479
<i>Mef2a</i>	0,648187335	0,896085803	1,012693613	0,772949178	0,977654921
<i>Tmem63b</i>	0,669659182	0,854124636	1,012017632	0,759902738	0,980895754
<i>Gbp6</i>	0,657336553	0,847250242	1,024578132	0,823484065	0,93133684
<i>Nsmaf</i>	0,734719244	0,907990669	0,899858411	0,790917133	1,043215844
<i>Taok2</i>	0,747898427	0,866066898	0,941915578	0,815951102	1,046092567
<i>Al846148</i>	0,79994829	0,933772744	0,989165218	0,859212877	1,111260828
<i>Trak2</i>	0,74536665	0,926884627	1,01381893	0,855257897	1,094119256
<i>Mktn2</i>	0,70062515	0,856257197	0,908836429	0,833053612	1,158227876
<i>Jph4</i>	0,725410559	0,839725959	0,871627767	0,825176954	1,191744515
<i>Msh2</i>	0,744038133	0,794377723	0,901671513	0,795641073	1,139788692
<i>Rcc1</i>	0,765596539	0,792915789	0,915521901	0,777418811	1,123763234
<i>Rnf215</i>	0,710411573	0,859718659	1,058714837	0,680720564	1,114653389
<i>Nt5dc3</i>	0,576529577	0,858179344	0,975066845	0,643130472	1,144233478
<i>Tgoln1</i>	0,535227647	0,949306343	1,036154298	0,707048604	1,022160582
<i>Ncoa4</i>	0,59146213	1,012539265	1,043351997	0,711223196	1,135867545
<i>Arsg</i>	0,590912525	1,039692118	1,055034094	0,826539425	0,983066646
<i>Rab6b</i>	0,592532303	1,063042301	1,009725614	0,774478168	1,023222861
<i>Pabpn1</i>	0,514233958	1,051622091	0,927983777	0,810760482	0,978510305
<i>Nsf</i>	0,485818742	0,987463173	0,892069246	0,885466736	1,006794587
<i>Kdm4a</i>	0,47646509	1,00301056	0,898981559	0,844204544	1,012869044
<i>Zfp410</i>	0,48754617	0,932990008	0,910463844	0,866395225	1,077150506
<i>Ykt6</i>	0,40746353	0,926251127	0,928984283	0,797494292	1,050318973
<i>Zfp236</i>	0,404188272	0,929767348	0,958706001	0,86659473	1,018935046
<i>Gcn1l1</i>	0,540637195	0,695701598	0,893121625	0,859475667	1,18342068
<i>Coq2</i>	0,60032004	0,712492723	0,869802234	0,82922502	1,19869875
<i>Fscn2</i>	0,629311992	0,776521339	0,863605552	0,852982112	1,131206455
<i>Brp</i>	0,544388818	0,789464896	0,777055801	0,881786161	1,18039933
<i>Bloc1s2</i>	0,534854632	0,792777967	0,859785452	0,910974747	1,33599895
<i>Rfc5</i>	0,583947227	0,782579349	0,869936524	0,92064105	1,240014954
<i>Cbr3</i>	0,520642232	0,708139737	0,823005801	0,947986535	1,268547748
<i>Ptpmt1</i>	0,612688706	0,799355855	0,648501995	0,856705488	1,251832474
<i>Enox</i>	0,534842862	0,758005825	0,665812921	0,723416607	1,236776311
<i>Snhg5</i>	0,422846821	0,821061635	0,938470287	0,799303154	1,341594979
<i>Zfyve27</i>	0,481797595	0,86623958	0,969431422	0,754202022	1,285633027
<i>Isca2</i>	0,549514831	0,775191984	0,862359221	0,824196608	1,237295205

<i>Dctn3</i>	0,562611805	0,803292002	0,862580175	0,780430611	1,297124563
<i>Lamtor2</i>	0,479229282	0,814289992	0,896910904	0,718375989	1,226968061
<i>Hyls1</i>	0,400251242	0,769142564	0,844810623	0,764134065	1,236305149
<i>Rab9</i>	0,447833602	0,710721146	0,858634742	0,717640848	1,147635541
<i>Ubp1</i>	0,397389721	0,72843382	0,839890406	0,688182892	1,182531194
<i>Rnf144a</i>	0,555110674	0,844931085	0,724293256	0,948754105	1,060388342
<i>Pcgf2</i>	0,548819317	0,866166558	0,78463586	0,962406226	1,041969854
<i>Sirt1</i>	0,471685888	0,820998698	0,727924274	0,909370758	1,023879655
<i>Nol12</i>	0,422427445	0,829039694	0,711492098	0,889195172	1,061266048
<i>Zfp346</i>	0,526843289	0,740830873	0,779692782	0,93948923	1,041766387
<i>Mto1</i>	0,515770227	0,746111117	0,827410757	0,986347444	1,025747061
<i>E130307A14Rik</i>	0,503860111	0,798741246	0,867703878	0,928878915	1,047727773
<i>Zfp507</i>	0,493852604	0,805431301	0,87569547	0,878769227	1,067348084
<i>D17Wsu104e</i>	0,508189497	0,776367869	0,845166335	0,923434509	1,158293482
<i>Ccpg1</i>	0,455147246	0,769657635	0,842178683	0,918554336	1,104570779
<i>Cdc37l1</i>	0,451813292	0,766377074	0,791980135	1,001155907	1,140624774
<i>Slc9a8</i>	0,409010718	0,774980497	0,815678895	0,901930451	1,197416705
<i>Gnpat</i>	0,45218388	0,735885883	0,781446062	0,891153251	1,154332942
<i>Ptpn23</i>	0,581616281	0,808622706	0,833748647	0,792252331	1,030690994
<i>Ddx47</i>	0,589939846	0,762200002	0,785493893	0,748700467	1,045473591
<i>Gm16062</i>	0,608864865	0,789850098	0,72025605	0,78332656	1,107237865
<i>Urgcp</i>	0,561307829	0,869467739	0,841942909	0,838600289	1,087824335
<i>Pomgnt1</i>	0,509481655	0,799692377	0,838459827	0,784481309	1,083184197
<i>Mon1b</i>	0,478609166	0,611986239	0,86103541	0,695270663	1,087877302
<i>Sec61b</i>	0,507505864	0,639927655	0,879475123	0,667192678	1,058486927
<i>1300001I01Rik</i>	0,518352273	0,602307397	0,854655536	0,746448573	1,095933385
<i>1200011M11Rik</i>	0,522369669	0,635219025	0,792883255	0,637617476	1,150391438
<i>Dlg2</i>	0,53683867	0,642850428	0,777593127	0,677988127	1,162280586
<i>Adcy3</i>	0,602165306	0,666784388	0,927948139	0,634467444	1,048900015
<i>Nudt21</i>	0,580794074	0,705162127	0,906038563	0,698782513	1,074691405
<i>Trip10</i>	0,597185079	0,714969977	0,824102078	0,65532665	1,067272954
<i>Fam129b</i>	0,489961133	0,636707607	0,961716014	0,667663616	1,155139398
<i>Clasrp</i>	0,501844277	0,6066332	0,885124412	0,672672633	1,160024369
<i>Cltb</i>	0,480609437	0,673871222	0,87655902	0,618298755	1,088626579
<i>Manbal</i>	0,554634319	0,686115801	0,992533022	0,577654192	1,091428193
<i>Fam83a</i>	0,596578369	0,611823885	1,012952537	0,637913064	1,28227611
<i>Atic</i>	0,543277145	0,628730777	1,059835078	0,576002638	1,289910774
<i>4933424G06Rik</i>	0,480479111	0,603138259	1,0147176	0,622324686	1,196934276
<i>1110054O05Rik</i>	0,433670042	0,828548215	1,036127673	0,767009323	1,096120152
<i>Get4</i>	0,402419794	0,765480936	1,008407322	0,801644656	1,0892091
<i>Tiparp</i>	0,479153959	0,809046949	0,966924598	0,761542387	1,081745407
<i>Zfp444</i>	0,457201774	0,762413244	0,964236616	0,670938359	1,100676998
<i>Ranbp3</i>	0,434819939	0,716747544	1,003196284	0,768193417	1,200437455
<i>Pdhhb</i>	0,419848095	0,695694052	0,94224335	0,776788223	1,15985732
<i>Zfp7</i>	0,459133878	0,690613868	1,022310013	0,835276331	1,117497176
<i>Erich1</i>	0,536403802	0,771204901	1,13565839	0,697928299	1,124405487
<i>Wdr67</i>	0,53198585	0,674290329	1,102506012	0,758590362	1,067852869
<i>Adamts15</i>	0,476553558	0,736525658	1,135049845	0,760281102	0,990075543
<i>4930513N10Rik</i>	0,475382773	0,771456485	1,109381131	0,837629659	1,015630292
<i>Kctd6</i>	0,434220714	0,834720921	0,899635723	0,733774859	1,009469383
<i>Notch2</i>	0,540156625	0,80261378	0,903588652	0,735343689	1,02461006

<i>Actn2</i>	0,50716498	0,833806346	0,989754718	0,680104659	1,032043731
<i>Gch1</i>	0,545448813	0,784051095	1,0283065	0,637766871	1,000445536
<i>Mosc1</i>	0,474304381	0,756929158	1,01566207	0,718193021	0,995158608
<i>D630039A03Rik</i>	0,518711135	0,750758607	1,29627133	0,567277581	1,11644321
<i>Ccdc106</i>	0,556883216	0,719231116	1,256377703	0,58424651	1,06895696
<i>Rims3</i>	0,443996652	0,792958934	1,418979249	0,466548602	1,034562177
<i>Rps27l</i>	0,238095108	0,817920965	1,211953007	0,657888543	0,865953462
<i>Pmp22</i>	0,271367855	0,724190482	1,272410624	0,633804748	1,015502582
<i>Per1</i>	0,471828393	0,666385532	1,036678998	0,69519887	0,917591796
<i>Tmem55b</i>	0,398834682	0,713285697	1,065267152	0,561639838	0,879458712
<i>Enpp4</i>	0,364874869	0,65093062	0,958230725	0,518321888	1,083696931
<i>Basp1</i>	0,3701561	0,586554654	1,002381948	0,50553111	1,006888873
<i>Maf</i>	0,531126932	0,623013203	1,136704564	0,458518568	0,986273057
<i>Metrnl</i>	0,515825916	0,522782131	1,111328779	0,482566572	0,989004124
<i>Pdzk1</i>	0,577058818	0,624194522	1,05358001	0,359707684	0,910548001
<i>Gm10584</i>	0,706419599	0,444652592	1,306972307	0,264657651	1,055893874
<i>Gpr124</i>	0,515614913	0,465610417	1,262541941	0,368439656	1,108441683
<i>LOC171588</i>	0,471865466	0,61377671	1,486787715	0,092527258	1,288448071
<i>Zfp580</i>	0,876864142	0,710728381	1,055497433	0,122865954	1,423506217
<i>Mcl1</i>	1,453166408	1,401367892	0,884950227	0,393749129	-0,448628892
<i>Arl4c</i>	1,228526156	1,490983975	1,749864074	0,060854615	-0,300005795
<i>Rnaseh2c</i>	1,854386943	0,680186188	2,004098374	1,140659301	0,572100984
<i>Dppa5a</i>	1,171863037	0,54945845	2,25276875	1,154110772	0,220403157
<i>A430071A18Rik</i>	1,806579642	0,964071501	0,991645906	0,916974305	0,691887367
<i>H2-Q1</i>	2,007655613	0,996570597	0,943473992	1,004613071	0,707165263
<i>Prodh</i>	2,055827235	1,250116316	0,888284775	0,74134416	0,552947798
<i>Fam122a</i>	1,897504528	1,113300609	0,862713901	0,816764285	0,712737242
<i>P2rx1</i>	2,004521823	1,121965065	1,005662713	0,875985022	0,736850925
<i>1700072O05Rik</i>	1,890555347	1,173725649	0,920929962	0,753326343	0,885321269
<i>Tnfrsf17</i>	1,813059209	1,115754867	0,999216911	0,769834476	0,856116377
<i>Ada</i>	1,891855566	0,988238134	1,106435056	0,583601528	0,779461972
<i>Tert</i>	1,884600699	1,153662546	1,119625088	0,623311028	0,859093134
<i>Mfsd6l</i>	1,903359563	0,941131871	1,008375948	1,283748697	0,564698937
<i>Pgp</i>	1,939747699	1,129461453	1,108366774	1,349171846	0,722776863
<i>4930474N09Rik</i>	1,981926657	1,221054596	1,231351707	1,145992289	0,533521848
<i>Il2ra</i>	1,607438726	1,319752382	1,193853153	1,037381129	0,982471929
<i>Diexf</i>	1,560595738	1,252926687	1,189753927	1,089109417	0,982536267
<i>1110008L16Rik</i>	1,515314662	1,264685488	1,12340086	1,022729846	0,964501124
<i>Tg</i>	1,498951382	1,27674185	1,124597437	1,032107464	0,98084309
<i>Pnck</i>	1,489991372	1,271905837	1,160230969	0,994537773	1,010943577
<i>Parp16</i>	1,504424571	1,190043117	1,177691537	1,100156986	1,059357169
<i>Gemin5</i>	1,524703322	1,154097791	1,14478081	1,012903479	1,038055035
<i>Stard10</i>	1,634371369	1,303933352	1,278240858	1,027072535	1,077581155
<i>Ap3s1</i>	1,559971996	1,346592502	1,280372264	1,089034266	1,052492188
<i>2010015L04Rik</i>	1,790444534	1,285084544	1,247435932	1,056905561	0,806219151
<i>B930018H19</i>	1,845001154	1,351418047	1,264377256	1,024301603	0,929859862
<i>Padi4</i>	1,769394314	1,251735598	1,141361904	0,945384601	0,893167282
<i>4930447K03Rik</i>	1,67702197	1,227960728	1,165606404	1,035340296	0,885257599
<i>Hist1h2ac</i>	1,865762649	1,20432602	1,005693938	1,038329193	1,04323552
<i>Gpr19</i>	1,832886945	1,221417651	1,016440006	0,943500688	0,901432217
<i>Grasp</i>	1,851514184	1,233237487	1,069381274	0,746613021	1,078556417

<i>2410057H14Rik</i>	1,947833504	1,280838838	1,104346297	1,135872871	1,10223523
<i>2010001M09Rik</i>	2,100312633	1,195928628	1,160218085	1,130937386	0,884571946
<i>4930473A02Rik</i>	1,740316319	1,261607683	1,144538199	1,164917828	1,0009658
<i>Fam125a</i>	1,746038547	1,219876704	0,986394048	1,327697043	0,954296238
<i>A530013C23Rik</i>	1,866429005	1,254739712	1,103896032	1,183587749	0,866096016
<i>Ly6g6e</i>	1,869658595	1,257920883	0,978046043	1,229179744	0,89721534
<i>Gm16039</i>	1,754738355	1,215524106	1,080750333	0,813792458	0,728687622
<i>Stx8</i>	1,690858155	1,275668199	1,035667872	0,852848648	0,749423047
<i>Gm16197</i>	1,628066283	1,143523488	0,998452714	0,806266622	0,83954359
<i>Lman2l</i>	1,549463438	1,340499459	1,15175363	0,871360838	0,796615819
<i>Arpp21</i>	1,549941825	1,236436369	1,228191757	0,879906036	0,820763411
<i>Il9r</i>	1,506810186	1,370783038	0,940115311	0,874827447	0,621354822
<i>Ankrd37</i>	1,460328273	1,236670676	0,837681185	0,607007045	0,868866227
<i>Camk2n2</i>	1,446309855	1,254107368	0,99331314	0,642920663	0,89129816
<i>4930405A21Rik</i>	1,479729043	1,441027046	0,918359707	0,622658929	0,883427625
<i>1700065J18Rik</i>	1,742912576	1,724888579	0,819850807	1,015143787	0,644237152
<i>Cpxm1</i>	1,709869736	1,025993933	1,160987397	0,239540166	0,340669827
<i>Olfr313</i>	1,745747808	0,550128676	1,175449098	0,317456875	0,388337597
<i>Chrna10</i>	1,708313447	0,770840327	1,000283582	0,708132498	0,436284403
<i>Gm3086</i>	1,546254052	0,792329463	0,897767546	0,799123252	0,364660774
<i>Ccdc93</i>	1,457683594	0,880863102	0,912823345	0,729437065	0,645411329
<i>Rimbp3</i>	1,461141401	0,849706889	1,022353269	0,801495552	0,544996957
<i>Jazf1</i>	1,701233642	1,099112042	0,878292499	0,613907956	0,40700665
<i>2010107G12Rik</i>	1,592029835	1,026239946	0,798253124	0,527118657	0,488782107
<i>Pnmal2</i>	1,526693925	1,1433996	1,014570167	0,545393011	0,414124194
<i>Mgp</i>	1,342218411	0,665200482	1,106401497	0,600396711	0,829259254
<i>Ccdc8</i>	1,395347414	0,749621246	1,166523406	0,5542727	0,550125193
<i>Cbfa2t3</i>	1,54752474	0,850633455	0,835407493	0,474336529	0,668400965
<i>Ephb2</i>	1,441850942	0,887774504	0,904885783	0,549124229	0,70155403
<i>Hfe</i>	1,607223607	0,763281249	0,936344876	0,500946339	0,741412723
<i>Crispld2</i>	1,489923284	0,991878448	1,06318471	0,55873161	0,73495811
<i>Slc10a5</i>	1,451784493	0,876696037	1,074783322	0,497023311	0,643253639
<i>Pla2g6</i>	1,518865524	0,934259015	0,947376191	0,649935442	0,759457449
<i>Engase</i>	1,398618956	0,880809378	0,94448559	0,698846494	0,817170094
<i>Dclk2</i>	1,324759949	1,045375767	0,99142529	0,711935327	0,744768965
<i>Dpf1</i>	1,372710459	1,020919857	0,992100272	0,714955692	0,857224862
<i>Cpsf4l</i>	1,572330163	1,037359789	0,86734251	0,58536251	0,714344736
<i>Rasa4</i>	1,696401957	0,938680207	0,913288751	0,676924847	0,885001824
<i>Card10</i>	1,584526711	0,856179311	0,967887938	0,751285715	0,865645042
<i>Spib</i>	1,725295755	0,790377223	1,10483177	0,747412745	0,740250156
<i>Six5</i>	1,737741985	0,674708626	0,914530929	0,940536999	0,824135112
<i>Gm889</i>	1,740662453	0,893184659	0,785109905	0,490087274	0,6051465
<i>Recql5</i>	1,730420092	0,832491936	0,740762767	0,364934876	0,656602427
<i>4930447A16Rik</i>	1,844400552	0,960316338	0,959719337	0,476871388	0,711012243
<i>Nccrp1</i>	1,74189701	0,723962859	0,919335311	0,339831841	0,896705637
<i>Hspa1b</i>	1,336715345	0,817017321	0,25356152	0,786749454	1,2584768
<i>Fam203a</i>	1,168320136	0,835436318	0,427749746	0,515966522	1,22013009
<i>1700019O17Rik</i>	1,568095247	0,81955771	0,640179406	0,576805917	1,591020993
<i>Ube2c</i>	1,291043826	1,040241594	0,917959853	0,697272715	1,333194035
<i>Pi16</i>	1,270506003	1,075255166	0,725588258	0,595852906	1,243067332
<i>Ccl4</i>	1,484640248	1,09420072	0,770602161	0,46610336	1,065715779

<i>Tff2</i>	1,319101186	0,866644118	0,913343309	0,478162145	1,275901755
<i>Cdkn1c</i>	1,36980525	0,81279689	0,867628981	0,646497336	1,302283148
<i>Heyl</i>	1,444843149	0,752719619	1,041953125	0,433976781	1,172328189
<i>2210416O15Rik</i>	1,369335506	0,827946078	0,900917424	0,758975708	1,18562678
<i>Gtpbp5</i>	1,289758514	0,824227358	0,844626458	0,716740533	1,138206746
<i>Arl2</i>	1,268947826	0,754725281	0,831821377	0,637712184	1,008877921
<i>Rnf187</i>	1,130328286	0,833454231	0,847636415	0,54674057	1,004951368
<i>Slc35e2</i>	1,03711946	0,866412087	0,83556192	0,611436714	1,058942649
<i>Uap1l1</i>	1,046027997	0,832793245	0,712544711	0,55350207	1,045664886
<i>C230035I16Rik</i>	1,093507229	0,989068815	0,688201576	0,461139792	1,029663559
<i>Spag8</i>	1,208601956	1,310019551	0,235519019	0,368195038	1,257262435
<i>Ldhal6b</i>	1,270207253	1,586885904	0,462821922	0,258192676	1,513296021
<i>Bfsp2</i>	1,458521912	0,94734508	1,157849482	0,708893466	0,972723325
<i>Lrrc42</i>	1,406580721	1,030484902	1,044773089	0,748690325	0,982579672
<i>Snx30</i>	1,433848836	1,016956947	1,004944027	0,877882067	1,009286468
<i>Ptprv</i>	1,435847706	0,999003669	0,952243917	0,89359911	1,041477928
<i>Mr1</i>	1,413645858	1,086891812	1,009794708	0,822485195	1,072022828
<i>Clns1a</i>	1,532469308	1,207449067	1,177664967	0,920897706	1,121951037
<i>Wnt10b</i>	1,576468718	1,166675983	1,180353961	0,882437868	1,089043392
<i>5830418P13Rik</i>	1,646061364	1,128001072	1,249633606	0,86282797	1,044700368
<i>4930588N13Rik</i>	1,552175561	1,111993107	1,143037965	0,96523034	0,862227242
<i>Vav2</i>	1,573335921	1,196716938	1,127819685	0,848548458	0,916769748
<i>Ankrd6</i>	1,467457446	1,110715044	1,131708434	0,883786394	0,939957292
<i>Rapgef1l</i>	1,534719602	1,063825885	1,080485456	0,909762443	1,007844437
<i>Pppde2</i>	1,694288786	1,060865224	1,303127215	0,937052473	1,135108082
<i>H1foo</i>	1,671310993	0,993820638	1,296172591	1,053270696	1,115956465
<i>Dus2l</i>	1,66421344	1,007260364	1,15737488	1,062087453	1,2416043
<i>Siva1</i>	1,595601501	0,982209775	1,421279394	1,027139205	1,131359414
<i>BB014433</i>	1,503819285	1,088327271	1,330339478	1,072735475	1,159981881
<i>A830010M20Rik</i>	1,461427959	1,368546051	1,108057697	1,18073236	0,9526424
<i>Slc35b4</i>	1,502637526	1,271199836	1,003845277	1,21491857	1,053694987
<i>Map4k5</i>	1,441314798	1,240908048	0,994189636	1,026326292	0,910170947
<i>Padi3</i>	1,416100855	1,19403597	1,092808672	1,211324891	0,766166079
<i>Tnfrsf13b</i>	1,074736978	1,018559448	1,333692279	1,013855208	1,080459422
<i>Slc27a1</i>	1,121401246	1,058844005	1,373308554	0,908914104	1,090887298
<i>Hist3h2a</i>	1,131054989	1,063362325	1,244833073	0,88171609	1,105629026
<i>AA474331</i>	1,231081974	0,98493068	1,375382109	0,997982481	0,952720996
<i>Xirp1</i>	1,251618032	1,018654848	1,394289245	0,834734252	0,996663207
<i>Prdm11</i>	1,282205276	1,082139269	1,162903407	0,951273661	1,104220484
<i>Mettl8</i>	1,307701958	1,058540176	1,165652597	0,90946812	1,163576363
<i>Wdtdc1</i>	1,248648309	1,093036875	1,215244401	0,878701797	1,204895161
<i>Fam166a</i>	1,237211141	0,958569272	1,160126829	0,929052662	1,208432697
<i>Pkn3</i>	1,320716609	0,97392304	1,17720556	0,93468211	1,129761407
<i>Pdlim7</i>	1,221004307	0,961928226	1,187423428	0,874031191	1,10171641
<i>Tctn2</i>	1,388980471	1,104526537	1,363201279	0,925194418	1,314070436
<i>Emid1</i>	1,396352675	1,115585398	1,346559278	0,898674411	1,232660597
<i>1700028I16Rik</i>	1,321565705	1,173108205	1,32953991	0,904128142	1,307382247
<i>Ppp1r37</i>	1,35415317	1,160141134	1,277780264	1,055137837	1,206045696
<i>Myo18a</i>	1,31073205	1,145080388	1,347306039	1,066116339	1,274351078
<i>Cd96</i>	1,190399694	1,188742795	1,385508197	0,964393545	1,213838806
<i>Ptprs</i>	1,25991713	1,001970717	1,305177287	0,950091868	1,202497008

<i>Rsph1</i>	1,248975488	1,048515643	1,297787128	0,939808995	1,194254829
<i>Ctcfl</i>	1,198338379	0,978445103	1,251131904	1,003148516	1,263968806
<i>Fxyd7</i>	1,301700728	1,044671961	1,377636782	1,056444429	1,330312387
<i>Tom1l2</i>	1,394184431	1,058616571	1,008896873	0,804287249	0,874383886
<i>Dbh</i>	1,380661616	1,100912423	1,051121818	0,855205324	0,855970392
<i>Fam83d</i>	1,370470838	1,109900163	0,941722358	0,803654138	0,947042729
<i>Gm19897</i>	1,324309735	1,121507682	0,995167519	0,835753871	0,928297649
<i>Dio1</i>	1,220223214	1,139781782	1,030369852	0,83992704	0,815832006
<i>Il12a</i>	1,217965979	1,099626452	1,060987993	0,825614121	0,909802607
<i>20100120O5Rik</i>	1,247747207	1,109889631	0,986975541	0,914044035	0,854097558
<i>Ly6i</i>	1,244288783	1,087448452	0,966920393	0,888507641	0,882927654
<i>Lrrc27</i>	1,371152636	1,131944244	1,166117579	0,992414221	0,794079492
<i>Lass6</i>	1,393988103	1,187810943	1,13836997	1,014953101	0,909125754
<i>Dnajb4</i>	1,36992013	1,027865277	1,045479929	0,951197679	0,861330395
<i>Slc35d1</i>	1,321631705	1,061766045	1,039110892	0,934389733	0,890271293
<i>Coro2b</i>	1,331161909	1,075571401	1,040310714	0,880589032	0,890814202
<i>Prep</i>	1,368656718	1,068533208	1,06005599	0,899248893	0,919462083
<i>C2cd2l</i>	1,309430805	0,960207248	1,183071241	0,904783124	1,002638275
<i>Akap12</i>	1,307130966	1,120020401	1,153561815	0,868903003	0,944883208
<i>Cdr2l</i>	1,123490478	1,011419261	1,127001302	0,846157727	0,977836227
<i>Cux1</i>	1,156219307	1,093948285	1,186587454	0,836841674	1,015707158
<i>Myl10</i>	1,228904975	0,946513914	1,195472735	0,813571096	0,816778487
<i>Tigd3</i>	1,416737156	0,765621614	1,168451897	0,771798889	0,926443847
<i>Fbxo6</i>	1,38407683	0,784313102	1,204663	0,929063343	1,031427517
<i>4930524O05Rik</i>	1,510278785	0,853865615	1,176163337	0,971480597	0,892941107
<i>Efcab4a</i>	1,341081663	0,730823672	1,157855013	1,106794115	1,003573256
<i>Pnpo</i>	1,276853227	0,78578161	1,058611	1,035104166	0,905243432
<i>Gpr84</i>	1,240027534	0,716391936	1,219947223	0,978189249	0,858166211
<i>Mageb3</i>	1,38495854	0,960036534	1,445002166	0,733026959	0,616889157
<i>I730028E13Rik</i>	1,454084333	1,098864143	1,387168399	0,87568929	0,743344858
<i>Btnl10</i>	1,6543412	1,019394552	1,199772995	0,845051579	0,59050855
<i>Lrrc32</i>	1,560886412	0,958509475	1,218736077	0,727028818	0,723255998
<i>B930041F14Rik</i>	1,648445223	0,929693528	1,24934993	0,437731286	1,336585062
<i>Tnni2</i>	1,552209989	0,960939829	1,305295216	0,562681282	1,322519472
<i>Tmem111</i>	1,608169249	0,973948713	1,029892855	0,62090674	1,220103111
<i>Tssk4</i>	1,937924258	1,009485876	1,075548135	0,556228328	1,346262691
<i>Gm826</i>	1,758715195	1,156148312	1,374637198	0,692566578	0,963916727
<i>BC055111</i>	1,771461407	1,19756277	1,252842041	0,673530025	1,050209184
<i>Reep1</i>	1,668950515	1,079172522	1,473604979	0,805372937	1,172072992
<i>Cd24a</i>	1,444846023	1,033345686	1,316371638	0,658828509	1,072276799
<i>Tagln</i>	1,310034207	0,925963823	1,279406476	0,626812252	1,09960303
<i>Tmem8c</i>	1,321965798	1,036117072	1,297416073	0,474011521	0,974169439
<i>Rasl10a</i>	1,326836679	0,756696237	1,420279795	0,639144742	1,066698105
<i>Gsg2</i>	1,200081874	0,876039699	1,158690774	0,681524761	1,405548648
<i>Fzd5</i>	1,304852951	0,908415528	1,147588812	0,546278399	1,352888267
<i>Gpx4</i>	1,469558735	1,14900384	1,098308709	1,242345686	1,559338717
<i>Tnfsf14</i>	1,385794596	1,128984708	1,216334575	1,134578892	1,588295827
<i>Fam109b</i>	1,46127409	1,144477771	1,142811546	0,957403736	1,623341858
<i>Slc29a1</i>	1,560368177	1,107638387	1,27924892	1,003331827	1,552711895
<i>Uhrf1</i>	1,596929026	1,030867338	1,329016608	1,019489637	1,46193766
<i>Ccdc124</i>	1,626890603	1,029739029	1,17428394	1,138956495	1,506750358

<i>Pim1</i>	1,568688711	1,052781937	0,954084695	1,127369838	1,497169603
<i>Ldoc1l</i>	1,760933203	0,99257605	0,945149555	1,15792836	1,411477339
<i>Wdr5b</i>	1,418259517	0,845351498	1,175517244	1,011158433	1,438596205
<i>Hirip3</i>	1,349511354	0,850676689	1,246533744	1,121920244	1,528021575
<i>Reep6</i>	1,421304123	0,846121134	1,153842264	0,894399157	1,587454011
<i>Nrarp</i>	1,458079419	0,75231374	1,489712681	0,901416275	1,424334423
<i>B3gnt1</i>	1,476812046	0,941932274	1,510766262	1,090975639	1,701821076
<i>Tnfrsf13c</i>	1,38248526	0,90935379	1,411352561	0,891300156	1,648249177
<i>Maff</i>	1,553126796	1,056075515	1,487110615	0,827600771	1,53971201
<i>Tmem52</i>	2,072712318	0,601450697	1,09886551	0,969842921	1,335438596
<i>AA467197</i>	1,535395451	0,470043105	1,020058951	0,756810084	1,219142796
<i>5830403L16Rik</i>	1,660071438	0,968415954	1,634440739	0,009459712	1,601091432
<i>Cxx1b</i>	1,291026559	0,930583018	1,954627031	0,183272925	0,936884937
<i>Ntn1</i>	1,526767587	0,941278541	0,6867841	0,576928997	0,392006896
<i>Lrrc15</i>	1,598658539	0,816680446	0,648834566	0,525904766	0,46042341
<i>Wnt8b</i>	1,473400724	0,818365066	0,691443441	0,515526197	0,284825499
<i>Slc43a1</i>	1,374487297	0,848364597	0,699353039	0,44855846	0,386657344
<i>Dgcr6</i>	1,507305144	0,754912172	0,564744464	0,441082582	0,193434619
<i>BC048355</i>	1,548394699	0,7780617	0,461031387	0,659395625	0,576338544
<i>Gm8909</i>	1,512277266	1,027923031	0,54916918	0,619043059	0,317698409
<i>Foxb1</i>	1,38775167	1,096087178	0,438225348	0,407533519	0,16594836
<i>1110054M08Rik</i>	1,413706432	0,618745253	0,846103914	0,713955004	-0,154944198
<i>Tff3</i>	1,086257748	0,602106122	0,322650408	0,6761416	-0,125798708
<i>Fam64a</i>	1,051317734	0,487925491	0,34697188	0,576735116	0,146649891
<i>Ly6g6c</i>	0,975300938	1,065661375	0,331263844	0,605084848	-0,135455107
<i>C2cd4a</i>	1,086506532	1,097881786	0,223145041	0,568270068	-0,084753494
<i>Kctd18</i>	1,197711363	0,74719847	0,667682135	0,460185872	0,750190684
<i>Ggnbp1</i>	1,144056844	0,677554477	0,648043238	0,445418056	0,680933841
<i>Spsb4</i>	1,272541099	0,723792107	0,701311736	0,465336596	0,589244798
<i>Klhl23</i>	1,198444404	0,62157722	0,663810745	0,59839383	0,631040786
<i>2010300C02Rik</i>	1,240543243	0,696436825	0,672669995	0,548246844	0,658761397
<i>E2f1</i>	1,168186443	0,678104136	0,676375368	0,575212411	0,733834698
<i>Msh4</i>	1,065437652	0,677392668	0,633261671	0,550706058	0,602109124
<i>Dclre1c</i>	1,111281127	0,683295699	0,579217146	0,46260711	0,564855209
<i>Aars2</i>	1,029642477	0,588265449	0,705515609	0,425108651	0,735721978
<i>Chadl</i>	1,038933043	0,553837876	0,597596477	0,440571053	0,698672173
<i>Srsf2</i>	1,035488343	0,521519767	0,706987528	0,485259339	0,766391243
<i>Itgb4</i>	1,045233332	0,532119913	0,668209772	0,489014133	0,829237728
<i>Ppp2r5b</i>	1,097562732	0,590687956	0,526705061	0,433914062	0,856984117
<i>Klhl33</i>	1,273378938	0,717008887	0,671457884	0,643392292	0,85572322
<i>Fam76a</i>	1,134433437	0,794594706	0,684897909	0,589712321	0,803204931
<i>Cort</i>	1,138563457	0,617886804	0,724736122	0,603694404	0,889469922
<i>Ogfod2</i>	1,089164215	0,635659852	0,595523153	0,592821195	0,877850189
<i>Ctf1</i>	1,080688798	0,680359515	0,490596358	0,61815374	0,724475644
<i>Trmt1</i>	1,036975962	0,572188505	0,442805664	0,733835879	0,724547915
<i>Guca2a</i>	1,035795197	0,643971584	0,555808354	0,7538298	0,605090109
<i>Synpo2l</i>	1,153017543	0,665412982	0,531200885	0,697257081	0,625983196
<i>Aanat</i>	1,383652825	0,61439223	0,628678662	0,374772204	0,803137549
<i>Ccdc78</i>	1,474428875	0,689907495	0,548156937	0,504704004	0,730727581
<i>Kis2</i>	1,461224841	0,517759374	0,548487563	0,708662361	0,797480414
<i>Iscu</i>	1,373216854	0,717756617	0,696436494	0,506601628	0,748368494

<i>Atp1a3</i>	1,421414891	0,802521479	0,714778162	0,591534515	0,66697572
<i>Cyp11b2</i>	1,380831333	0,516651921	0,739062006	0,641246472	0,571122729
<i>Pld6</i>	1,198828518	0,775904093	0,42844725	0,329024534	0,980656792
<i>Sac3d1</i>	1,383625757	0,750614483	0,26735195	0,19187049	0,852651932
<i>2610306M01Rik</i>	1,406180139	0,577440033	0,625429228	0,137536562	0,858033321
<i>Syt6</i>	1,163920019	0,616459037	0,579377636	0,297646117	0,638174404
<i>Mapk8ip1</i>	1,024554956	0,568927607	0,53943724	0,351246854	0,572050544
<i>Kcnk5</i>	1,025711973	0,586681835	0,736857123	0,266778211	0,665356218
<i>Vwce</i>	1,040474927	0,626354502	0,65426222	0,325743963	0,391420797
<i>Scube3</i>	1,005304998	0,605508115	0,713886883	0,226643597	0,420800365
<i>4931402G19Rik</i>	1,26317998	0,718105096	0,908952245	0,200313677	0,567551936
<i>Mrgpre</i>	1,117281485	0,642810373	0,63831833	0,5406159	0,385089807
<i>Ltbp4</i>	1,274904451	0,590716548	0,62029334	0,471622037	0,347817535
<i>Chst3</i>	1,275318283	0,682757436	0,770475201	0,502060816	0,423968656
<i>Cebpe</i>	1,332201037	0,71827503	0,734409077	0,600240388	0,439459354
<i>1700047M11Rik</i>	1,232320942	0,743753936	0,641138174	0,449897587	0,406920205
<i>Mab21l3</i>	1,267666067	0,750715129	0,685552695	0,457831898	0,48688913
<i>Cyp11b1</i>	1,262737722	0,75736001	0,61470755	0,384083381	0,494915513
<i>Ganc</i>	1,208346972	0,778360426	0,643811235	0,343323809	0,352061354
<i>Wisp3</i>	1,122236945	0,818641994	0,732442523	0,415381673	0,427488386
<i>Bcat1</i>	1,162898279	0,814175369	0,706514235	0,500110106	0,418761213
<i>1810041L15Rik</i>	1,070575051	0,722399857	0,744152228	0,484946444	0,475249519
<i>Il17re</i>	1,193633732	0,779831287	0,573645431	0,498535303	0,166149358
<i>Sec31b</i>	1,128666597	0,678956526	0,593557808	0,444395045	0,18477048
<i>Slc7a11</i>	1,167893699	0,687826669	0,489888611	0,368703708	0,226353104
<i>Osbp1a</i>	1,017612553	0,768360855	0,609306747	0,380524954	0,289821607
<i>Camkv</i>	1,186361643	0,529078428	0,44616953	0,372004746	0,613720425
<i>Acbd7</i>	1,104697648	0,423983148	0,39627731	0,364482702	0,554217317
<i>Gm6320</i>	1,172892671	0,62474515	0,451189594	0,366984227	0,415194109
<i>Parvb</i>	1,081906662	0,596318746	0,590183603	0,469653595	0,477105156
<i>Pkig</i>	1,000686451	0,627503629	0,553526383	0,495866456	0,490887789
<i>1110058L19Rik</i>	1,016503783	0,514614893	0,511268201	0,537789097	0,411423262
<i>Tdrd1</i>	1,02348855	0,76012458	0,304097135	0,428327942	0,622350366
<i>Gh</i>	1,13618456	0,64894684	0,287330568	0,176718927	0,432267649
<i>Sdc4</i>	1,110052007	0,60278344	0,421929497	0,148232593	0,355409095
<i>Slc45a3</i>	1,007673676	0,538017594	0,405256878	0,074855215	0,536897623
<i>Lypd2</i>	1,318622853	1,032553643	-0,468483653	-0,305583646	0,236582301
<i>Gpr27</i>	1,233207005	0,89581586	-0,530103931	-0,038380791	-0,49419847
<i>Cxx1c</i>	1,2469941	1,207897461	-0,005782963	-0,36517501	0,465210392
<i>Lor</i>	1,298716192	-0,015971668	0,007508525	0,21513228	-0,101012349
<i>Ltb4r2</i>	1,41868426	0,152073544	-0,425865458	-0,056816403	-0,483603232
<i>Xlr5c</i>	1,160452858	-0,335315797	0,256295843	-0,701554571	-0,708996674
<i>Nog</i>	1,29088323	0,136840784	0,166109535	-0,460273159	-0,137735534
<i>Xlr5b</i>	1,113400334	-0,554831707	0,030185247	-0,392926427	-0,104955056
<i>9930005F22Rik</i>	1,433959717	0,159680225	0,034742074	0,14574205	0,203193912
<i>Kif12</i>	1,441753768	0,173954814	-0,076219837	-0,136190979	0,312166126
<i>H2-BI</i>	1,001223704	0,265855999	0,012607063	-0,256156598	-0,503143985
<i>Rtn4r</i>	1,007579964	0,315025676	0,054415029	0,039636502	-0,106461029
<i>Gltpd2</i>	1,122171187	0,355331339	-0,0580801	-0,32641762	0,137931008
<i>Gfi1b</i>	1,115505071	0,364270553	0,319009822	-0,127887431	0,048410176
<i>Nwd1</i>	1,13995077	0,420726397	0,31534818	-0,014642042	0,025020935

<i>Hmgcs2</i>	1,154804366	0,354938702	0,33962522	0,103875331	-0,151653007
<i>Olfr543</i>	1,152520591	0,241603499	0,402992576	-0,173690542	-0,159570455
<i>Tomm40l</i>	1,019117894	0,301564466	0,407397065	0,298503758	0,333093139
<i>Ptges</i>	1,006657674	0,423322613	0,241965731	0,259868444	0,358095558
<i>6430571L13Rik</i>	1,041473097	0,459642293	0,353394136	0,153241417	0,308340073
<i>Espnl</i>	1,099148967	0,325303544	0,393124945	0,147788682	0,240960436
<i>Rgl3</i>	1,256834564	0,272934872	0,255095754	0,267258086	0,251834118
<i>2410017I17Rik</i>	1,405523701	0,497669484	0,431318211	0,372540946	0,381121611
<i>2610109H07Rik</i>	1,346677839	0,568182663	0,462681082	0,232264232	0,259433446
<i>Gpr156</i>	1,053826422	0,555563309	0,434763891	0,222032386	0,113212381
<i>Acsf3</i>	1,150824428	0,511030505	0,400297046	0,193287147	0,156782158
<i>Pde10a</i>	1,030954191	0,483538684	0,329843427	0,203318655	0,032082373
<i>Rnf222</i>	1,176079788	0,543028181	0,292809375	0,266012596	0,208248062
<i>Lcn6</i>	1,132566716	0,508469469	0,345898515	-0,050666409	0,153478009
<i>Trim29</i>	1,187104918	0,639044865	0,284478703	0,031109315	0,108378221
<i>Fam159b</i>	1,291003204	0,507680676	0,550504862	0,184150552	-0,100579828
<i>Vmn2r35</i>	1,759849146	-0,481012472	0,26592269	-0,999830918	-0,795559046
<i>Gm5464</i>	1,638860031	-0,203672325	0,263734739	-0,274635472	0,202748853
<i>5730577I03Rik</i>	1,869099238	0,300565	0,365305702	0,063951319	0,174595952
<i>Pfn1</i>	1,885181462	0,773433639	0,422111414	-1,149228458	-1,197865009
<i>1700012D01Rik</i>	1,722612267	0,800494146	0,520765145	-0,416811483	0,162668962
<i>Pole3</i>	1,061526179	-0,511633115	0,317507989	0,015742615	0,489015154
<i>Cdkn1a</i>	1,094759675	0,050305186	0,335483395	0,268261068	0,633025196
<i>Gpr30</i>	1,112599737	0,358967786	0,497543665	0,103119536	0,445693884
<i>Podn</i>	1,045348283	0,279631436	0,365008923	0,153032239	0,503378608
<i>Slc35e4</i>	1,086186637	0,274689106	0,471818792	-0,140077802	0,693469463
<i>Tubb3</i>	1,188017024	0,256506946	0,764889242	0,098472736	0,963453661
<i>Timm13</i>	0,877578418	0,031706649	0,629180201	-0,890254333	1,007412093
<i>Gnb3</i>	1,09136042	0,364100946	0,511874527	0,470210819	0,332879142
<i>Rccd1</i>	1,245424667	0,400894405	0,628547632	0,386880113	0,437181664
<i>Pdcd2l</i>	1,000796603	0,317249291	0,622382544	0,499280043	0,497347577
<i>1700110C19Rik</i>	1,038377614	0,460871856	0,714065662	0,452563944	0,469752915
<i>C1ql4</i>	1,030288054	0,016448223	0,45244053	0,537518147	0,550473833
<i>2510003D18Rik</i>	1,236728078	0,470076087	0,203126458	0,55983281	0,76676967
<i>Hist2h3c1</i>	1,241734014	0,253500536	1,161075138	0,614409023	0,793099877
<i>Mafa</i>	1,604625524	0,142738752	1,1348607	0,475788731	0,805745574
<i>Ankle1</i>	1,182441842	0,242709334	0,7526657	0,634859167	0,606153305
<i>BC029214</i>	1,223048148	0,029473688	0,921346824	0,787856431	0,672761228
<i>Gm6682</i>	1,105460037	0,137813682	0,828402851	-0,719062401	0,476121385
<i>Socs1</i>	1,138230795	0,22141355	0,908243199	-0,061381652	0,61728293
<i>1110017F19Rik</i>	1,529626644	0,242435528	0,99881583	-0,043369589	0,402527424
<i>Hrh3</i>	1,344896405	0,495568116	0,715528997	0,184480811	0,283285916
<i>Mrgprg</i>	1,374643371	0,356702771	0,738680895	-0,114030252	0,341617076
<i>Gzma</i>	1,225708835	0,547646779	0,66175966	0,079602792	0,321579027
<i>Wnk2</i>	1,200766147	0,470542622	0,570299595	0,101514197	0,41505025
<i>1700029P11Rik</i>	1,023556815	-0,34923827	0,672192106	-0,45136214	0,043262992
<i>Lrfn4</i>	1,14832188	0,555207598	0,387451768	0,924275182	0,98672076
<i>Lrrc45</i>	1,007677932	0,406781347	0,544663756	0,845626243	1,072234104
<i>Rpp21</i>	1,000786213	0,554942971	0,644783293	0,836782856	0,835016572
<i>Hoxa7</i>	1,067563754	0,52991528	0,572868378	0,84934589	0,63328855
<i>Tnnc2</i>	1,036350912	0,357383864	0,641142227	0,963921592	0,697760287

<i>Prr22</i>	1,077623414	0,692594414	0,788791482	0,987776479	1,164942838
<i>2810006K23Rik</i>	1,052761167	0,604157244	0,882109913	0,904856919	1,176847654
<i>Itgam</i>	1,180329699	0,73201128	0,805677792	0,855008833	1,120341996
<i>Gm3230</i>	1,129884697	0,391330745	0,806668326	0,977625529	1,119710301
<i>Car11</i>	0,880760414	0,638962473	0,630267453	0,92790901	1,028706927
<i>Angptl6</i>	0,882993409	0,568089575	0,716512146	0,950724481	1,010720744
<i>Thoc6</i>	1,035749257	0,582434714	0,780441811	1,015474797	0,992002245
<i>Crip2</i>	1,032585807	0,558520751	0,712800359	1,135710617	1,071097808
<i>Tha1</i>	1,075619815	0,519803181	0,711232737	1,102028587	1,132703612
<i>F2rl2</i>	0,982944832	0,642221573	0,712708618	1,12401464	1,191990286
<i>Pdf</i>	1,518751569	0,266030649	0,53595834	1,116772476	1,140043865
<i>2010001M06Rik</i>	1,254419661	0,120516194	0,836515315	1,330133242	0,909803004
<i>Tusc1</i>	1,352648842	-0,006416271	-0,021689469	0,778884611	1,172684926

Cluster 5					
Intragenic 5hmC (log2 CMS-IP/Input)					
Gene symbol	DP	CD4 SP	CD8 SP	naïve CD4	naïve CD8
<i>Npw</i>	0,866460018	-0,022867889	1,582037553	0,165103004	0,725713275
<i>Tmem107</i>	1,031723714	0,278149933	1,508816361	0,135041594	0,942714393
<i>Elof1</i>	0,501393707	0,372784311	1,60595263	-0,134218477	0,673694912
<i>Tppp2</i>	0,536193238	0,732137573	1,147221551	0,402735721	0,342514221
<i>Krt24</i>	0,592458239	0,651558582	1,01029578	0,386591468	0,427715643
<i>Lpar6</i>	0,335356745	0,23714321	1,095218387	0,47437323	0,309847294
<i>Gm3264</i>	-1,50227093	-0,117780831	1,27505239	-5,049556714	-0,923851679
<i>Gm10408</i>	0,174226685	-0,511824	1,035391652	-0,606468875	-0,602155527
<i>Nkg7</i>	-0,224550139	-0,393087354	1,408657061	-0,666034833	0,668145891
<i>Gm10731</i>	0,180213817	-0,021342598	2,556563194	0,925175985	1,020105087
<i>Gm5071</i>	-0,606572773	1,801203706	3,473033553	-0,886116132	-1,188767731
<i>Gm14685</i>	-2,379928652	0,463008843	2,600738363	-1,780499086	0

Cluster 6					
Intragenic 5hmC (log2 CMS-IP/Input)					
Gene symbol	DP	CD4 SP	CD8 SP	naïve CD4	naïve CD8
<i>Sub1</i>	0,469281964	1,516062842	1,529968245	1,394425749	1,32337901
<i>Myst4</i>	0,601885195	1,442982231	1,51028172	1,404238992	1,364297067
<i>Rbms2</i>	0,649391542	1,556734097	1,445212009	1,26121799	1,185220912
<i>Man1a</i>	0,719104312	1,307739727	1,466202348	1,342228501	1,486033279
<i>Med7</i>	0,611542001	1,240938197	1,429804356	1,339900202	1,454859311
<i>Actr1a</i>	0,696823918	1,313549874	1,399648259	1,255478316	1,446605716
<i>Klc1</i>	0,677210487	1,316575751	1,327090494	1,298087731	1,450750756
<i>Fkbp11</i>	0,700826723	1,392043026	1,422826193	1,402207069	1,360218939
<i>Mrps6</i>	0,674460687	1,347720538	1,397395936	1,300325395	1,343873331
<i>Nek7</i>	0,522019015	1,31279036	1,380187824	1,4073177	1,484111428
<i>Mapk1</i>	0,488474178	1,304842808	1,420685425	1,354850453	1,451792552
<i>Tet1</i>	0,539719687	1,377120186	1,474466009	1,413334259	1,47809019
<i>Ppm1a</i>	0,587020672	1,266109774	1,341693403	1,374642435	1,493619171
<i>Reps1</i>	0,546693377	1,289357646	1,310144258	1,395435934	1,439953065
<i>Mat2a</i>	0,562401381	1,227478584	1,359879742	1,388810122	1,321880417
<i>Mynn</i>	0,545302707	1,232384925	1,444708624	1,326463342	1,286759983
<i>Myeov2</i>	0,487348691	1,500921712	1,186516486	1,649038353	1,169433664
<i>Ap2a2</i>	0,413869178	1,492888398	1,232393497	1,635887851	1,275708222

<i>Gm11981</i>	0,587032411	1,4201671	1,144041484	1,73850139	1,241331943
<i>Znrd1</i>	0,718048662	1,43792884	1,346727234	1,722730956	1,257144455
<i>Rab1b</i>	0,736874362	1,429638374	1,313253175	1,637476115	1,209841387
<i>Zer1</i>	0,600965097	1,480058789	1,287023216	1,451205309	1,440188782
<i>Rnf122</i>	0,609522332	1,447490065	1,295285753	1,485693712	1,43265569
<i>Ext1</i>	0,639762659	1,532241644	1,365835015	1,479156691	1,33262286
<i>Ppa2</i>	0,613464132	1,422830404	1,245181169	1,453287849	1,294884199
<i>Zcchc10</i>	0,788171067	1,545982926	1,105816969	1,43169441	1,326628103
<i>Tmem154</i>	0,920442505	1,535303395	1,440441012	1,383339448	1,306364542
<i>Stim2</i>	0,914356273	1,508926466	1,479592556	1,376809235	1,40257689
<i>Rbm4b</i>	0,765167974	1,487920852	1,429152639	1,44411406	1,253301208
<i>Ccdc109a</i>	0,958647551	1,496370301	1,253464444	1,384935386	1,149539887
<i>Mical3</i>	1,053458685	1,597151686	1,344374123	1,499293774	1,201097406
<i>Ccrl2</i>	1,026089195	1,386649875	1,297603177	1,425843597	1,240385543
<i>Tbc1d30</i>	1,037400687	1,398039307	1,304379613	1,589053642	1,252898171
<i>Arl8a</i>	0,921986019	1,263555805	1,239063328	1,472519827	1,221789657
<i>Ip6k2</i>	0,915108051	1,623399061	1,233414741	1,225948756	1,341400039
<i>Wfikkn1</i>	1,051331376	1,508469576	1,243627079	1,214721189	1,406178608
<i>1700020M21Rik</i>	0,868499191	1,481469313	1,393570172	1,137403734	1,271501993
<i>Cry1</i>	0,960249338	1,459604902	1,384762445	1,184732844	1,30676361
<i>Il12rb2</i>	0,863006765	1,426069294	1,430588747	1,196532289	1,36765694
<i>Il10ra</i>	0,762292122	1,72062392	1,406366535	1,584358733	1,35371184
<i>5730419I09Rik</i>	0,776908138	1,603506327	1,365083886	1,601804882	1,295393263
<i>Tspan32</i>	0,951583522	1,586475838	1,423399179	1,555875625	1,411577288
<i>Gsdmd</i>	0,887019315	1,62672637	1,33263729	1,524790747	1,475448006
<i>Fam136a</i>	0,961872175	1,753508428	1,244602232	1,521344877	1,260496364
<i>Rgs2</i>	1,007950624	1,737461171	1,317813886	1,629076473	1,294527222
<i>Bzw2</i>	0,931875549	1,684650624	1,56211407	1,492121917	1,412163623
<i>Sall2</i>	0,922214924	1,779571002	1,455703267	1,508191309	1,370250581
<i>RbmX</i>	1,109613044	1,723603076	1,363803017	1,427691111	1,452912965
<i>Bri3</i>	0,63422418	1,353964417	1,122761017	1,83422207	1,452415476
<i>Pygo2</i>	0,851137704	1,499171232	1,191020651	1,80214076	1,470233341
<i>Vipr1</i>	0,76083124	1,284477745	1,122447632	1,751200226	1,615563054
<i>Gm15008</i>	0,87419901	1,402404952	1,162060459	1,756970105	1,682877365
<i>Fermt3</i>	0,814361273	1,181640939	1,288610623	1,609000305	1,481105767
<i>Vhl</i>	0,885354861	1,277442818	1,317423273	1,645907661	1,399448787
<i>Izumo1</i>	0,847032551	1,223604365	1,303645633	1,799783415	1,315860186
<i>Slc41a3</i>	0,801224818	1,42300489	1,451536339	1,518754215	1,568551045
<i>Stub1</i>	0,784024052	1,410321735	1,417488912	1,532997587	1,497496942
<i>Psip1</i>	0,701234069	1,328254109	1,479034092	1,487479181	1,529743135
<i>Casc3</i>	0,892946146	1,319188398	1,492765886	1,565052257	1,564034384
<i>Batf</i>	0,877323375	1,310731838	1,449318188	1,601318481	1,580323889
<i>Trappc6b</i>	0,873308454	1,342895713	1,484156834	1,534982751	1,650286939
<i>Sdcbp</i>	0,640799751	1,251239802	1,54004926	1,455738756	1,588919486
<i>Rnf10</i>	0,68159816	1,233059985	1,491808138	1,438011875	1,65182345
<i>Serinc4</i>	0,658684423	1,205327327	1,542433616	1,581122249	1,534643087
<i>Fubp1</i>	0,512194065	1,451939444	1,483584072	1,681285148	1,528512229
<i>Vrk1</i>	0,528779224	1,532987202	1,440877709	1,633742116	1,528782862
<i>Mapkapk3</i>	0,586027514	1,41543877	1,338090602	1,632331707	1,455707812
<i>Pgrmc2</i>	0,586284587	1,412719945	1,261009019	1,660625746	1,422494869
<i>Ddit3</i>	0,692360316	1,557871767	1,395796132	1,53747683	1,485658674

<i>Klhl6</i>	0,596941591	1,567385431	1,326317724	1,607015519	1,503031902
<i>Atp2b1</i>	0,498077735	1,453642428	1,499813976	1,486570954	1,648841582
<i>Raly</i>	0,484564981	1,410405543	1,555346307	1,459583667	1,635287221
<i>Eif4b</i>	0,49991054	1,352539169	1,572145193	1,498484131	1,684314925
<i>Srrm1</i>	0,501282772	1,374223534	1,503747659	1,494158039	1,604499394
<i>Kcmf1</i>	0,524003643	1,312625274	1,473043064	1,532479729	1,580846695
<i>Bclaf1</i>	0,467878709	1,363620671	1,474869066	1,500188889	1,699456346
<i>Csnk1d</i>	0,500077397	1,368101491	1,448544677	1,426543095	1,698978278
<i>Stxbp3a</i>	0,5462176	1,3701809	1,396135923	1,473300725	1,663426745
<i>Rbx1</i>	0,559913073	1,277727042	1,477830065	1,460034798	1,727301568
<i>Mtif3</i>	0,554622583	1,368816992	1,413419283	1,546355553	1,708896031
<i>Add1</i>	0,570112576	1,31090958	1,360387838	1,56829415	1,693829786
<i>Hnrnpul2</i>	0,501088775	1,260655939	1,457395083	1,604078121	1,705318069
<i>Zfp592</i>	0,686735641	1,439046794	1,425227138	1,520371168	1,643021894
<i>Plagl2</i>	0,659899358	1,471055968	1,448492918	1,485563945	1,648840038
<i>Sp1</i>	0,530003588	1,485412733	1,374413504	1,533523384	1,633264094
<i>Nab1</i>	0,525373335	1,51297052	1,503904567	1,546650854	1,684158342
<i>Mex3c</i>	0,565675173	1,54471392	1,556747687	1,538424407	1,591457138
<i>C430048L16Rik</i>	0,520567387	1,356979464	1,365330794	1,309370855	1,58173725
<i>Lrch3</i>	0,561365336	1,355716112	1,422294032	1,33518798	1,635122628
<i>Trim13</i>	0,574722408	1,467649411	1,360223767	1,3574895	1,658290222
<i>Dnmt3a</i>	0,667364696	1,29414767	1,662017748	1,323096211	1,659786096
<i>Ilf3</i>	0,671639523	1,369828485	1,662080587	1,364839483	1,602646983
<i>Chic2</i>	0,558574133	1,340318776	1,630733251	1,338728702	1,649859652
<i>Creb1</i>	0,704349647	1,344355221	1,497998837	1,339079907	1,605288011
<i>Gnai3</i>	0,690685907	1,335120839	1,497155738	1,332335054	1,578973624
<i>Gnb1</i>	0,702367574	1,430889278	1,522111041	1,322829459	1,515999572
<i>Pttg1ip</i>	0,8066947	1,389808091	1,46236482	1,411651726	1,640476603
<i>Cnot3</i>	0,74398291	1,328886299	1,425938193	1,408704167	1,676688591
<i>Lman2</i>	0,781702474	1,333678453	1,462476579	1,458581698	1,741508051
<i>Fbxo28</i>	0,782165184	1,313809851	1,493737732	1,427966575	1,745750314
<i>Vps37c</i>	0,771659114	1,291111261	1,484288509	1,473991491	1,66646627
<i>Sf3b2</i>	0,711760662	1,369890881	1,494430923	1,46066992	1,669160544
<i>Acap2</i>	0,708319458	1,393435272	1,496178602	1,423620906	1,731443713
<i>Crk</i>	0,715984129	1,313058833	1,529509903	1,408046669	1,702481267
<i>Wbp7</i>	0,619792622	1,357185796	1,551349114	1,440362897	1,670390991
<i>Kras</i>	0,551705672	1,312610153	1,190692601	1,401678468	1,390855864
<i>Mxd1</i>	0,556101977	1,322569897	1,238173338	1,389761071	1,471326472
<i>Pgap2</i>	0,571524435	1,271391162	1,149884887	1,260843284	1,492742857
<i>2010109K11Rik</i>	0,54390897	1,329594124	1,304494756	1,281969871	1,458663387
<i>1700012D14Rik</i>	0,466036778	1,377705455	1,294567612	1,258143831	1,434729167
<i>Chchd8</i>	0,4762895	1,338746448	1,24077014	1,272153151	1,514334116
<i>Ypel5</i>	0,457089054	1,190056907	1,339220988	1,439691046	1,531741052
<i>Usp15</i>	0,48236092	1,244509494	1,376753984	1,386907576	1,533053278
<i>Slc26a2</i>	0,507705764	1,267028836	1,32880598	1,390853616	1,62767891
<i>Mzt1</i>	0,526251874	1,263028037	1,334038435	1,471637382	1,607583999
<i>Cox17</i>	0,572618795	1,213182379	1,267500071	1,317146148	1,582732033
<i>Dock8</i>	0,551867659	1,208608976	1,29973972	1,355617931	1,520985762
<i>Hectd1</i>	0,512386111	1,190862384	1,296942698	1,3087093	1,593677246
<i>Cdc37</i>	0,495695221	1,151702435	1,258353577	1,336771275	1,592582366
<i>Gm1332</i>	0,386606031	1,406609287	1,141006762	1,543423144	1,602655066

<i>Romo1</i>	0,324205119	1,307925574	1,107347223	1,423087829	1,677123426
<i>Arid4a</i>	0,577684774	1,229397618	1,381263186	1,496962265	1,6178029
<i>Rbms1</i>	0,587337183	1,23278209	1,346979451	1,44293208	1,659197691
<i>Bag6</i>	0,639916724	1,28864985	1,285475127	1,495407561	1,616770951
<i>B430306N03Rik</i>	0,560287594	1,248265632	1,306345418	1,587027718	1,667001854
<i>Gatc</i>	0,595353075	1,32867572	1,311526444	1,512981421	1,469722822
<i>Txk</i>	0,581987304	1,269280195	1,29865192	1,49567096	1,484096557
<i>Ctdnep1</i>	0,583874933	1,310245483	1,312152254	1,450405816	1,508861059
<i>Fbxo33</i>	0,566943219	1,312696471	1,397145336	1,563897972	1,520782463
<i>Tead2</i>	0,641196294	1,201483982	1,323834959	1,390486651	1,542418085
<i>Atf1</i>	0,610385299	1,220485229	1,287579052	1,41404179	1,544695946
<i>Txn14a</i>	0,620512711	1,222837316	1,322132083	1,467790918	1,565619755
<i>Spnb2</i>	0,653271326	1,159377754	1,341909379	1,496658699	1,519347493
<i>Mpv17l2</i>	0,646076378	1,384185657	1,149435412	1,607277127	1,484388412
<i>Snx21</i>	0,63096686	1,199414673	1,124432742	1,555153522	1,513091965
<i>Ccni</i>	0,348550433	1,274507153	1,466351644	1,429473073	1,499866003
<i>Dhx15</i>	0,313876716	1,208120628	1,470547022	1,405855638	1,573825114
<i>Rsrc2</i>	0,316912793	1,325791793	1,403851573	1,402811815	1,652786404
<i>Scaf8</i>	0,378572197	1,291083675	1,464058024	1,438107333	1,616014619
<i>Slc2a1</i>	0,44751366	1,269878122	1,394274407	1,46765884	1,707727458
<i>Poldip3</i>	0,436931209	1,294371816	1,359237072	1,391842393	1,686774206
<i>Mll5</i>	0,416307871	1,277133465	1,393637703	1,542433462	1,665231985
<i>Gdi2</i>	0,441848546	1,315462667	1,372816048	1,530496928	1,642799728
<i>Ubl3</i>	0,400324962	1,316915831	1,359140527	1,4928222	1,677567564
<i>Ctss</i>	0,380696419	1,211263722	1,292413646	1,535123433	1,506320678
<i>Morc3</i>	0,334035346	1,183200991	1,398933056	1,517400926	1,616806436
<i>Bbip1</i>	0,413726374	1,207519208	1,279161475	1,649106026	1,624846822
<i>Pomp</i>	0,426066825	1,513431995	1,224074658	1,407635673	1,498566848
<i>Cab39</i>	0,438836749	1,476588135	1,399774645	1,411870299	1,499696291
<i>Xpo6</i>	0,389077468	1,327123913	1,32787026	1,440831815	1,447664861
<i>Rprd2</i>	0,409047755	1,332524926	1,380273979	1,441987618	1,450563421
<i>Suv420h1</i>	0,448748296	1,305846617	1,344273957	1,345819104	1,411429033
<i>Pdia3</i>	0,323726109	1,320993515	1,329581774	1,44359491	1,334049769
<i>Ptplad1</i>	0,368468207	1,351169952	1,327765555	1,420651569	1,318882639
<i>Psma3</i>	0,600908371	1,226850176	1,404956473	1,300511061	1,758060728
<i>Tcp11l2</i>	0,614806071	1,135528248	1,415109665	1,254185579	1,748815399
<i>Snrpd1</i>	0,548910677	1,131293835	1,514213989	1,328821878	1,699882254
<i>Tmub2</i>	0,474294167	1,140205919	1,429625747	1,177062654	1,764608339
<i>Pde12</i>	0,472414318	1,102697381	1,379629066	1,284685201	1,730167412
<i>2010107H07Rik</i>	0,59222735	1,138106723	1,417400284	1,190758754	1,603456449
<i>Akirin2</i>	0,53609459	1,126119896	1,39370552	1,220931922	1,557862654
<i>Nck1</i>	0,56371481	1,149005265	1,431197436	1,277536229	1,601114211
<i>Ube2r2</i>	0,496788946	1,213652299	1,458361588	1,328185184	1,567238654
<i>Gba2</i>	0,533896481	1,278247486	1,443221295	1,283977916	1,555963799
<i>Ube2i</i>	0,610829903	1,256363432	1,574260705	1,152839933	1,707897371
<i>1810026J23Rik</i>	0,65337064	1,228440677	1,652537823	1,140938033	1,592227251
<i>Reep2</i>	0,590540886	1,29049295	1,442936858	1,004094078	1,657756466
<i>Dedd</i>	0,546664094	1,243258779	1,268028644	1,11686898	1,472283341
<i>Tex261</i>	0,553507461	1,266836997	1,32885423	1,111971409	1,552988024
<i>Lrrc58</i>	0,45457672	1,208819562	1,343512275	1,184063355	1,47060125
<i>Sfxn3</i>	0,597534657	1,199929456	1,242373145	1,23266962	1,427941165

<i>Bdh1</i>	0,626131905	1,238177418	1,273064289	1,232999526	1,462361021
<i>Snx5</i>	0,6825585	1,17415084	1,268794143	1,269568318	1,459991752
<i>Nmt1</i>	0,594860094	1,193547304	1,371340069	1,241889378	1,492491677
<i>Gsk3b</i>	0,611494428	1,190310254	1,373617472	1,235574309	1,39978652
<i>Csrnp2</i>	0,708691246	1,221423894	1,326695889	1,195316815	1,429947984
<i>Tbpl1</i>	0,643475813	1,206098127	1,326069944	1,18568082	1,424350165
<i>Axl</i>	0,788896895	1,143265967	1,464726721	1,118321651	1,402693703
<i>Mosc2</i>	0,795767829	1,134271802	1,441608742	1,219623862	1,428418232
<i>D930015E06Rik</i>	0,794218055	1,212255815	1,514465542	1,133969867	1,494750618
<i>Prrc2c</i>	0,689108094	1,25293779	1,438244895	1,233616311	1,491782821
<i>Dip2b</i>	0,736088091	1,22264988	1,395262243	1,163858159	1,43379362
<i>Ing4</i>	0,740827135	1,211591543	1,366022896	1,143188887	1,564664853
<i>Map4k1</i>	0,692306089	1,202301686	1,399522833	1,108460352	1,499707574
<i>Ndufa4l2</i>	0,711172453	0,908731193	1,382925223	1,485951054	1,521644498
<i>4930507D05Rik</i>	0,755204287	0,902267896	1,311809679	1,573009209	1,421935333
<i>1700123O20Rik</i>	0,80984544	1,019945611	1,391827294	1,484410822	1,366737705
<i>Prr3</i>	0,675630869	0,959778903	1,223053813	1,414649146	1,474739499
<i>Usf2</i>	0,621532124	1,026234525	1,240573607	1,399353115	1,458643268
<i>Ttc36</i>	0,737556974	0,914520662	1,243629838	1,408912267	1,387268135
<i>Polr2d</i>	0,756852174	0,944177115	1,264848599	1,400839312	1,384860114
<i>Rps7</i>	0,57979749	1,038396342	1,38453165	1,404735126	1,554207977
<i>Cebpg</i>	0,566525603	1,072791464	1,312588714	1,410441391	1,569493257
<i>Stk11</i>	0,690455346	1,020677815	1,361500033	1,354558379	1,476341775
<i>2410003K15Rik</i>	0,698775404	1,008135097	1,383552622	1,36220359	1,4810695
<i>Ccnt1</i>	0,54360432	1,136443572	1,4632822	1,366875098	1,496655864
<i>Dnajc8</i>	0,615790593	1,15160169	1,440387963	1,332968521	1,463551516
<i>Sumo3</i>	0,615569442	1,060032116	1,466206214	1,458483667	1,4256095
<i>9430008C03Rik</i>	0,67981495	0,850480283	1,34533596	1,348809298	1,653346828
<i>2310044H10Rik</i>	0,705355404	0,876506013	1,221568783	1,294394738	1,672922159
<i>Tmed2</i>	0,538503872	0,812639437	1,313089433	1,333572582	1,533281519
<i>Ovca2</i>	0,601753251	0,794471807	1,322854815	1,43936749	1,577233169
<i>Sbds</i>	0,617398754	1,110581352	1,277372156	1,303862869	1,373614212
<i>Ppp6r3</i>	0,564321441	1,104426355	1,308826557	1,224011303	1,326845656
<i>Scaf4</i>	0,528955076	1,140868372	1,240361087	1,269355377	1,422757472
<i>Stx16</i>	0,499646941	1,165617892	1,226317624	1,260714014	1,376878492
<i>Vdac2</i>	0,579421495	1,165689958	1,211887815	1,282347442	1,398232671
<i>N4bp1</i>	0,529553357	1,08475641	1,261782843	1,371775892	1,351497347
<i>Rabepk</i>	0,49383783	1,039372505	1,264206973	1,317534422	1,416384945
<i>Klhl2</i>	0,40709106	1,205342373	1,194098638	1,302976701	1,383708855
<i>Asap1</i>	0,461679634	1,253226398	1,236680617	1,354335408	1,393761219
<i>2400003C14Rik</i>	0,449997308	1,156349519	1,220345244	1,320215542	1,305795126
<i>Heca</i>	0,440903731	1,160799422	1,278718695	1,401646945	1,406861896
<i>Zfp1</i>	0,577905902	1,027702566	1,284162006	1,260099509	1,293104808
<i>Zfp748</i>	0,564184275	1,022343349	1,260980959	1,264214678	1,354628106
<i>Phf12</i>	0,516751311	1,035891422	1,240938292	1,196318666	1,312026404
<i>Vapb</i>	0,55184983	1,052367462	1,251504299	1,193778389	1,299333302
<i>Zfp212</i>	0,47618303	1,014868341	1,362910942	1,281826241	1,284001851
<i>Smarca2</i>	0,517386135	1,130203074	1,300954132	1,169914485	1,412797514
<i>Tsr1</i>	0,57898789	1,098590858	1,342799324	1,225496726	1,427370183
<i>Kansl1</i>	0,467346961	1,13876447	1,332197552	1,29658287	1,382985409
<i>Zfp148</i>	0,46419501	1,151492314	1,342094285	1,269519856	1,398147094

<i>Snopc3</i>	0,506020709	1,118873736	1,343576055	1,290752314	1,359710992
<i>2810002N01Rik</i>	0,600991517	0,987215917	1,206840945	1,310460356	1,406478802
<i>Nfya</i>	0,579340943	1,065442044	1,188842612	1,303010684	1,400711108
<i>Eif4g1</i>	0,687940004	1,047016482	1,140020211	1,371688572	1,383094883
<i>Mdh2</i>	0,569765652	1,065893832	1,185736213	1,359109755	1,245240045
<i>Nrbp1</i>	0,578251825	1,03288163	1,137180509	1,32497911	1,276083898
<i>Kat2b</i>	0,591704239	1,093805851	1,114574182	1,319362503	1,339093623
<i>Nup50</i>	0,453170886	1,034219519	1,228815379	1,311901458	1,55233212
<i>Tmed10</i>	0,496794071	1,108548074	1,242135297	1,352266731	1,545543625
<i>Twf1</i>	0,445959106	1,099058058	1,191629221	1,414251141	1,519494323
<i>Nufip2</i>	0,372471994	1,109102346	1,338901506	1,373700091	1,516033813
<i>Akap8</i>	0,381835115	1,088370603	1,315841548	1,355646747	1,548690335
<i>Epn1</i>	0,538854146	0,98857867	1,277283032	1,367497501	1,486899469
<i>Ntan1</i>	0,459514941	0,964755084	1,219804177	1,387919332	1,464386502
<i>Atp6v0e</i>	0,481728841	1,053927749	1,103470426	1,334364089	1,417237563
<i>Cmas</i>	0,497991918	1,077387612	1,168196326	1,274562474	1,388717441
<i>Btbd1</i>	0,436938686	1,058671304	1,119524151	1,212986878	1,475695349
<i>Stim1</i>	0,467012199	1,063940852	1,135930731	1,281750705	1,524601297
<i>Trim12c</i>	0,440733811	1,027541678	1,214862525	1,224467103	1,382119617
<i>Nrbf2</i>	0,501704175	1,026809435	1,229848786	1,2206901	1,418354677
<i>Whsc1l1</i>	0,485334315	1,063045139	1,09960621	1,399527296	1,572784841
<i>Polr3c</i>	0,549556915	0,987729139	1,146561802	1,361534046	1,598639951
<i>Zdhhc20</i>	0,442866901	1,056715029	1,161442228	1,392894881	1,592850438
<i>Zfp84</i>	0,431528712	1,015507816	1,215815151	1,400486607	1,626049972
<i>Pprc1</i>	0,512552877	1,08737729	1,204722044	1,430053876	1,814439275
<i>Puf60</i>	0,568851405	1,071036484	1,241678554	1,394237313	1,818317749
<i>Snx4</i>	0,526490658	1,147950866	1,264296691	1,447470153	1,804404117
<i>Rpl11</i>	0,584516728	1,109700331	1,240012264	1,331784641	1,863413063
<i>Idnk</i>	0,537239618	1,26027786	1,24977098	1,268960135	1,798431575
<i>Eif3b</i>	0,511394537	0,946556984	1,402609683	1,239497578	1,759352997
<i>Bop1</i>	0,621924579	1,001706524	1,272441467	1,190340931	1,796418657
<i>Lax1</i>	0,512323807	0,970915108	1,257496161	1,351910652	1,813492869
<i>Ppp1r12c</i>	0,721887996	1,092852634	1,388996989	1,381582103	1,660928085
<i>Taf8</i>	0,740305253	1,094822932	1,486228412	1,415538392	1,63989476
<i>Hnrnpd</i>	0,678789203	1,123576132	1,424861654	1,382970312	1,549914349
<i>Ubqln2</i>	0,66344988	1,073640451	1,440478673	1,387367729	1,752553032
<i>Pde6h</i>	0,657002754	1,082706503	1,51698552	1,359840932	1,699172109
<i>Atxn7l3b</i>	0,651874854	1,0614238	1,303502809	1,26306346	1,605828068
<i>Gosr1</i>	0,70461224	1,11029852	1,331664053	1,269280761	1,71529975
<i>Capn1</i>	0,574112468	1,136626196	1,304849147	1,403360832	1,629183527
<i>Ppm1g</i>	0,63680078	1,186031966	1,32446813	1,363780895	1,698763245
<i>Raf1</i>	0,731874129	1,165919693	1,313456642	1,213486374	1,546793755
<i>Oasl1</i>	0,76854565	1,153518434	1,37739847	1,208585801	1,556639857
<i>Sec24c</i>	0,711013435	1,171860974	1,329020828	1,27351164	1,609459754
<i>Ndst2</i>	0,833721369	1,100411534	1,351361208	1,203460578	1,660098381
<i>Lmf2</i>	0,858561848	1,168441869	1,317076629	1,24529284	1,681332779
<i>Fam120a</i>	0,759840606	1,226939079	1,389363794	1,310284549	1,558990306
<i>Olfir56</i>	0,746599021	1,184146555	1,410833007	1,294628049	1,620691761
<i>Fbxo21</i>	0,804575309	1,177920506	1,38588968	1,364546746	1,58616204
<i>Sbno2</i>	0,807454666	1,161745367	1,312321858	1,382145135	1,661271862
<i>Pgam1</i>	0,773380842	1,211386676	1,307423531	1,342901762	1,697804502

<i>Fau</i>	0,41813159	1,53630033	1,271407473	0,933874011	1,72420006
<i>Rbm12b</i>	0,37243345	1,617768456	1,187480286	1,158390211	1,799811163
<i>Klhdc4</i>	0,425273161	1,639379954	0,576752548	1,263640421	1,674755908
<i>Rps29</i>	0,876106715	1,441987218	1,076558999	1,353634675	1,876180679
<i>Gm19710</i>	0,987054035	1,549656595	1,156008903	1,480786706	1,813558907
<i>Kbtbd7</i>	0,958253996	1,640160497	0,687012074	1,236890095	1,841175216
<i>Trp53inp1</i>	0,896000237	1,269865551	1,369614522	1,192568172	1,203305847
<i>Mad2l1</i>	0,871110915	1,256883489	1,359422774	1,110012093	1,223502423
<i>Gsg1</i>	0,880786969	1,283893577	1,374784658	1,029787613	1,147371496
<i>Ublcp1</i>	0,849791394	1,246041998	1,207291011	1,107227724	1,197821089
<i>Osbpl11</i>	0,897720082	1,210752571	1,230991804	1,085232383	1,168051948
<i>Inpp1</i>	0,87292758	1,333378053	1,249563445	1,07277131	1,105779578
<i>Tmc4</i>	0,943125767	1,306155398	1,34477174	1,261326869	1,235226747
<i>Sertad2</i>	0,96557894	1,269850439	1,311688197	1,247711685	1,279548371
<i>Mfsd2a</i>	0,977372958	1,303768882	1,305394594	1,281742497	1,183079336
<i>Usp6nl</i>	0,72416437	1,36419786	1,278705502	1,229550433	1,226554281
<i>Rab22a</i>	0,743315825	1,382579321	1,312972962	1,275002618	1,269580119
<i>Fbxw11</i>	0,807747725	1,30513036	1,353642009	1,248731517	1,26416923
<i>Utp11l</i>	0,754403421	1,415062735	1,419265964	1,259246914	1,290566394
<i>Nr1h2</i>	0,783716927	1,396331472	1,258497504	1,189341442	1,359400753
<i>Dpysl2</i>	0,843150794	1,26528901	1,25984985	1,271107254	1,364677845
<i>Rybp</i>	0,808005522	1,247076222	1,215982068	1,220745091	1,369735434
<i>1300018J18Rik</i>	0,874303904	1,17561435	1,156603211	1,299815976	1,372600115
<i>Hdac10</i>	0,925297904	1,26802224	1,153919274	1,172530109	1,296330058
<i>2310067B10Rik</i>	0,957325945	1,244269582	1,165900754	1,171381849	1,338508702
<i>Diap1</i>	0,845882781	1,202604087	1,38143002	1,179812484	1,35322048
<i>Camk2g</i>	0,864408091	1,180247961	1,378911138	1,228165209	1,355738642
<i>Slc39a14</i>	0,933715868	1,210884833	1,287932586	1,16615665	1,317187806
<i>Akr1a1</i>	0,806837862	1,100500297	1,302457472	1,149495362	1,332724187
<i>Zeb1</i>	0,789757565	1,192316352	1,30679631	1,110519313	1,366108462
<i>Cox4i1</i>	0,751249802	1,209323038	1,32218801	1,327932061	1,381010791
<i>Ccdc47</i>	0,755677136	1,131104381	1,36333208	1,361034898	1,358684355
<i>Mapk14</i>	0,735393618	1,146788866	1,272051392	1,325955313	1,325031739
<i>Ppp2r1b</i>	0,682763634	1,231630461	1,304139586	1,326089069	1,251488498
<i>BC030336</i>	0,73442954	1,197382837	1,342150874	1,186190823	1,361067952
<i>Stx1b</i>	0,746662434	1,187458183	1,355756135	1,23508475	1,34215521
<i>Zfp644</i>	0,794206404	1,141194965	1,343711346	1,254274965	1,357278291
<i>Man2a1</i>	0,732172183	1,158751756	1,316472893	1,217344256	1,269784849
<i>Asf1a</i>	0,706172565	1,138545391	1,240949841	1,209360927	1,293268362
<i>Pcgf5</i>	0,731440941	1,121627207	1,21920822	1,218847878	1,36377242
<i>Ssu72</i>	0,646944226	0,995898232	1,082860543	1,140710541	1,348526831
<i>Fdxr</i>	0,653495822	1,033503026	1,110365393	1,086849925	1,318063348
<i>2310009A05Rik</i>	0,644429355	1,074092764	1,04495966	1,054740023	1,360083838
<i>Tmem63a</i>	0,688242068	1,081379215	1,09997229	1,180353365	1,403080437
<i>Iqgap2</i>	0,616615823	1,002920237	1,066426809	1,213601309	1,307254805
<i>Tnpo1</i>	0,608774575	1,047696492	1,151413019	1,201437775	1,321557306
<i>Ifit2</i>	0,600950646	1,039148058	1,106486301	1,143277477	1,173460107
<i>Pfkfb4</i>	0,565702282	1,005058534	1,079817999	1,187619877	1,151636943
<i>Lpin1</i>	0,570409153	0,969980569	1,189334048	1,187098815	1,193162133
<i>Gm17745</i>	0,674182681	1,044312468	1,130324982	1,09861857	1,193809281
<i>Exoc2</i>	0,640522374	1,052695392	1,156563285	1,084248188	1,189448034

<i>Tnnt1</i>	0,699711632	1,013671317	1,171024205	1,138393632	1,143337425
<i>Clip1</i>	0,803021884	1,017705073	1,17097531	1,082310538	1,243540993
<i>Usp3</i>	0,814537603	1,117649548	1,181328509	1,110612914	1,232404392
<i>Gm13807</i>	0,758563267	1,078471304	1,205363262	1,053188669	1,148469188
<i>Pex14</i>	0,644659717	1,114104263	1,042819295	1,169976979	1,13411536
<i>Gpatch3</i>	0,685480228	1,150859168	1,028887733	1,15739603	1,156196981
<i>Fbxl20</i>	0,694768534	1,107091642	1,065635595	1,177171328	1,193111106
<i>Trim35</i>	0,637273591	1,182171386	1,02114048	1,206029209	1,159881196
<i>Ino80c</i>	0,595858438	1,159760281	1,159986823	1,032158351	1,121513479
<i>Ostc</i>	0,614649927	1,182220238	1,15899962	1,085016554	1,154899558
<i>Ezh1</i>	0,677727254	1,176377859	1,155059758	1,046456491	1,086236602
<i>Ccnj</i>	0,691886113	1,199837495	1,211590753	1,227143586	1,190463692
<i>Cdyl</i>	0,666245028	1,203730504	1,157313208	1,153156514	1,197063113
<i>Gnl1</i>	0,750889365	1,129710402	1,209767183	1,169350003	1,096681784
<i>Zc3h8</i>	0,623466998	1,202678621	1,200460433	1,291474745	1,093591061
<i>Ankmy2</i>	0,584147203	1,218809589	1,24704066	1,257994559	1,13964226
<i>Sec24b</i>	0,80238845	1,116907867	1,123554538	1,150821222	1,359377432
<i>Mpzl3</i>	0,838044849	1,140741262	1,142472241	1,13791727	1,403654219
<i>Krt10</i>	0,807151038	1,237013751	1,143915775	1,138943693	1,408350893
<i>Fam160b2</i>	0,819249891	1,234093446	1,080433292	1,027350889	1,297983766
<i>Dap</i>	0,708561383	1,185863677	1,24074661	1,067606253	1,408149326
<i>Phax</i>	0,746736376	1,173574319	1,233897951	1,044725534	1,371227064
<i>Gemin4</i>	0,7426077	1,221582081	1,282857269	0,985556597	1,346677957
<i>Ankrd55</i>	0,746808997	1,15101263	1,244161235	1,07791614	1,281244087
<i>Stk40</i>	0,712569183	1,20263013	1,273158174	1,061363291	1,321715252
<i>Mrps36</i>	0,752496948	1,25949209	1,228575192	1,09785265	1,325627346
<i>4930515B02Rik</i>	0,898100024	1,229882093	1,077878057	1,201428967	1,180804382
<i>Actr8</i>	0,800929035	1,287005199	1,121885462	1,281593634	1,204967183
<i>Ccr10</i>	0,935668691	1,300963183	0,907140524	1,165710384	1,267076861
<i>Rab25</i>	0,956532039	1,387365408	1,035848709	1,153434589	1,467421553
<i>N6amt2</i>	0,766547513	1,363256914	1,124235013	1,07956943	1,452410302
<i>Ube2j1</i>	0,566598105	1,296507004	0,997145884	1,305444586	1,231192727
<i>Dusp27</i>	0,626576878	1,350505553	1,139180407	1,251453372	1,251860452
<i>Fos</i>	0,710393132	1,342226783	0,889407476	1,363889422	1,319064365
<i>Gm4262</i>	0,647399519	1,189517497	1,025003892	1,251498657	1,438986573
<i>Mars</i>	0,664624519	1,163469123	0,959423046	1,21200862	1,337095196
<i>Smarcc2</i>	0,726799376	1,160686609	1,097768535	1,30594584	1,425148849
<i>Mmab</i>	0,7551819	1,171807445	1,041855134	1,398011887	1,408257968
<i>Golgb1</i>	0,474598526	1,499416852	1,222389901	1,165866479	1,046240246
<i>Ap3m1</i>	0,470755568	1,436457512	1,128049576	1,284844188	1,120574201
<i>5730460C07Rik</i>	0,552694875	1,477816567	1,032890941	1,071122444	1,237252207
<i>Mum1</i>	0,63806672	1,464321164	1,084614723	1,085311419	1,136279465
<i>Arhgap33</i>	0,557755335	1,338341052	1,335365821	1,110376269	1,198005233
<i>Gm4278</i>	0,57244872	1,400533009	1,352097615	1,192355009	1,33064431
<i>Zfp784</i>	0,484020441	1,384770474	1,218438606	0,985618199	1,311547166
<i>Pσμα4</i>	0,502728547	1,447012844	1,148059259	1,20821034	1,327250376
<i>Gm20337</i>	0,41137435	1,557483821	1,058681579	1,134822787	1,44186344
<i>Rbl1</i>	0,354526357	1,291934576	1,230028979	1,297350294	1,203280834
<i>Zbtb34</i>	0,400719959	1,327709684	1,299014074	1,284147084	1,156982542
<i>Leprot</i>	0,382555175	1,303761364	1,119128433	1,30928217	1,220365297
<i>Mboat1</i>	0,511097263	1,500429312	1,147301963	1,464945844	1,182977527

<i>Arl5a</i>	0,465251726	1,477501222	1,086369691	1,440617785	1,236650873
<i>Gm5434</i>	0,429068953	1,534726551	1,324525669	0,919314895	1,115108597
<i>Rab19</i>	0,37507938	1,44528327	1,35620026	1,162874263	0,983329194
<i>Kctd14</i>	0,731139524	1,413329305	1,396234792	0,849014732	0,964494076
<i>6330403K07Rik</i>	0,674329637	1,339542743	1,511997698	0,943284358	0,975013967
<i>Cybrd1</i>	0,849738407	1,404237961	1,115343034	1,208100473	0,943810041
<i>5033414D02Rik</i>	0,752893411	1,453876109	1,046188693	1,128209863	1,02092611
<i>1700010I14Rik</i>	0,670372152	1,355188621	1,334441032	1,172346453	1,046959248
<i>Pdcd1lg2</i>	0,68946999	1,447024827	1,253483803	1,087981362	1,081179639
<i>Elac1</i>	0,705667579	1,330729893	1,276930371	1,332352129	1,102411911
<i>HnrplI</i>	0,635530976	1,417561064	1,19582215	1,391418905	1,043512193
<i>Cd81</i>	0,744418289	1,435620438	1,289452059	1,46415339	1,003539077
<i>S100b</i>	1,38715833	1,612223599	1,099868961	1,329205313	0,987895388
<i>8030423F21Rik</i>	1,225316653	1,63958581	1,336360074	1,31739324	0,990055436
<i>Nrn1I</i>	1,160019631	1,298890075	1,303055012	1,402149368	0,830096191
<i>Cd44</i>	0,988252296	1,243036403	1,008411901	1,070028473	0,881782481
<i>Nsmce2</i>	0,942630138	1,202607572	1,076589694	0,98624542	0,901683379
<i>Hivep3</i>	0,968804442	1,293966712	0,977479859	0,944413023	0,82793313
<i>Osblp3</i>	0,95182958	1,249287449	0,987844351	0,972702625	0,892233225
<i>2010109A12Rik</i>	1,059035013	1,276324706	0,978278404	1,00385069	0,991001337
<i>4930455F23Rik</i>	1,135984775	1,344661171	0,964604888	0,838593784	0,779537582
<i>Sh3rf1</i>	1,210848221	1,339319027	1,075032065	0,968119189	0,790402154
<i>1810062G17Rik</i>	1,066346796	1,433990217	1,188665332	0,960331977	1,068481863
<i>Zfp770</i>	1,047735671	1,407439737	1,115998347	1,001264815	0,976951739
<i>Serpnb5</i>	1,140126288	1,346346818	1,153710646	1,102762641	0,959089386
<i>Ephb6</i>	1,132105887	1,380455631	1,350702583	1,092626662	0,84467079
<i>Cnot10</i>	1,03681321	1,298985987	1,167294315	1,243698023	1,091637864
<i>Atxn10</i>	0,981889048	1,246107211	1,091538679	1,161913518	1,063067836
<i>Fanci</i>	1,014526299	1,308837619	1,188875761	1,318481459	0,955435075
<i>Slc45a4</i>	0,869126086	1,244770699	1,005898433	1,143984229	0,955439449
<i>Zfp870</i>	0,808342896	1,1779209	1,081727099	1,159592446	0,942520863
<i>Bmp2k</i>	0,839670517	1,256755432	1,083191237	1,281277567	1,008541237
<i>Gpr179</i>	0,901359064	1,155920356	1,006843858	1,21844686	0,951789991
<i>Sox13</i>	0,982564189	1,172942345	1,053261234	1,257167131	0,96651513
<i>Wdfy2</i>	0,934904702	1,142407038	1,218309357	1,045627666	1,041914811
<i>6030440G07Rik</i>	0,95945831	1,185308017	1,187834876	1,002350159	1,028308266
<i>Tespa1</i>	0,851745703	1,183279868	1,165210015	1,03474964	1,104927818
<i>Ndrp3</i>	1,009283582	1,228537782	1,165731411	1,007619549	1,108499645
<i>Zswim1</i>	1,007581108	1,258886348	1,324757502	0,973235542	1,05020273
<i>Itga9</i>	1,050851796	1,137642073	1,168243032	1,047341804	0,924490774
<i>Sall3</i>	1,026381339	1,254318312	1,223603391	1,004796301	0,936146937
<i>Slc25a25</i>	0,952326407	1,181208023	1,133088041	1,11262137	1,216811148
<i>Tm7sf3</i>	0,974050291	1,188576001	1,135402085	1,130926654	1,225496548
<i>Slc25a12</i>	1,018232643	1,127925005	1,098249041	1,100938506	1,160949211
<i>Trim71</i>	1,007340536	1,189730901	1,23007426	1,102449583	1,201185256
<i>Tpm2</i>	1,015406119	1,120505726	1,148619746	1,059730583	1,199934704
<i>Ptprn</i>	1,027610573	1,100302048	1,167146254	1,015426192	1,146843709
<i>Fzr1</i>	1,043888666	1,116004757	1,161108678	0,987926604	1,249550809
<i>Acot13</i>	1,034919362	1,044662068	1,143959457	1,023173689	1,19589779
<i>4833420G17Rik</i>	1,009497114	1,02989151	1,073752453	1,028801181	1,188138726
<i>Cand2</i>	1,128011024	1,076171292	1,223541842	1,220707074	1,281552837

<i>Med24</i>	1,059480145	1,098531891	1,224205379	1,178812647	1,250388105
<i>Nfe2l3</i>	1,127767225	1,144088389	1,235673912	1,249718634	1,170562114
<i>Cpne5</i>	1,125561338	1,213075783	1,075365903	1,138131399	1,146907239
<i>Kidins220</i>	1,167197506	1,181580676	1,049689345	1,110435806	1,104616311
<i>Fam129c</i>	1,160594419	1,198869934	1,157840412	1,172983353	1,114899587
<i>Polrmt</i>	1,244816204	1,2401396	0,990658644	1,128929265	1,117434784
<i>Fbxo17</i>	1,135281943	1,121675046	1,024846877	1,223847338	1,18761511
<i>Ap2s1</i>	1,147652625	1,111689273	0,982602516	1,141813891	1,153904451
<i>8430406I07Rik</i>	1,068660581	1,233253564	1,025403536	1,147589408	1,1599899
<i>Uhrf1bp1l</i>	1,020084335	1,303774895	1,169150493	1,114024413	1,167658518
<i>Dnajc25</i>	1,066602561	1,316110002	1,233623411	1,150081439	1,125581624
<i>Ppt2</i>	1,151374902	1,239360053	1,172855526	1,087052233	1,225619752
<i>Gdf11</i>	0,986917368	1,426662629	1,187895217	1,11425353	1,212010998
<i>Galt</i>	1,087180542	1,414029211	1,077738588	1,125387813	1,266296372
<i>Gabarapl2</i>	0,474557033	1,23184309	1,197761678	1,489193688	1,245362407
<i>Aim1</i>	0,623189602	1,2244352	1,202273748	1,507489816	1,320698968
<i>Slc22a1</i>	0,540735387	1,183390409	1,156600099	1,349041633	1,276892249
<i>Micall1</i>	0,580916583	1,214918408	1,149714917	1,390935462	1,257936547
<i>Yaf2</i>	0,568546561	1,274939071	1,140308371	1,404306246	1,295352331
<i>Ranbp10</i>	0,573111088	1,204598726	1,006787987	1,508463645	1,196369224
<i>Nr2e3</i>	0,415243628	1,158937942	0,978295381	1,566187071	1,22127899
<i>Gpnmb</i>	0,566002154	1,136783271	1,018291803	1,284573682	1,130418815
<i>Dpf2</i>	0,536514735	1,04164435	1,014430989	1,304086669	1,096469101
<i>Fam84b</i>	0,461594565	1,070750359	1,092312966	1,409443332	1,059328665
<i>Fam55c</i>	0,586847155	1,05369746	0,903895579	1,376990996	1,142782844
<i>Zfp623</i>	0,539088638	1,130124818	0,880498167	1,452410738	1,116348119
<i>Kifc5b</i>	0,664259518	1,231094571	1,145194846	1,359396098	1,088414198
<i>Gm129</i>	0,650638856	1,200048549	1,011604678	1,317310341	1,045069107
<i>Myo10</i>	0,736283184	1,11491913	1,01925319	1,447906107	0,918355829
<i>Tssc4</i>	0,722852671	1,235707745	1,032356873	1,415972626	0,89403782
<i>Apoa5</i>	0,831642631	1,157657509	1,009671551	1,498888899	1,176222893
<i>Lpar5</i>	0,809973242	1,107073977	0,91616377	1,445768686	1,143674942
<i>Espn</i>	0,718297319	1,237780281	0,91328793	1,561651144	1,129914318
<i>1600012H06Rik</i>	0,539113725	0,831416939	1,065142824	1,326978615	1,060526594
<i>Gfod2</i>	0,52589656	0,820228472	0,995796466	1,33152904	1,065792279
<i>Trmt12</i>	0,625563837	0,887665721	1,058405007	1,46890295	1,142546762
<i>Rnf5</i>	0,751049575	0,777594354	1,164030133	1,373833019	0,98412361
<i>P2ry14</i>	0,808447942	0,918976059	0,919802941	1,21992226	0,97020425
<i>Asprv1</i>	0,745212447	0,900504886	1,086897035	1,23315668	0,882420136
<i>Snrpb</i>	0,585724864	0,874454044	1,092335736	1,242941811	1,016797393
<i>Igf2bp3</i>	0,657572713	0,853754482	1,091173054	1,119562895	1,007713443
<i>4831440E17Rik</i>	0,886580455	0,832081413	1,040245882	1,19836665	1,172155157
<i>Bckdk</i>	0,918255044	0,868930296	1,104831907	1,337311095	1,182461474
<i>Commd6</i>	0,861931484	0,916205098	0,924691586	1,330790346	1,23385785
<i>Slc25a45</i>	0,836675009	0,945532914	0,85400768	1,242748018	1,201203087
<i>Ddx3x</i>	0,826143077	1,086756851	1,095351373	1,196790171	1,235573888
<i>Tbc1d1</i>	0,770785787	1,017349098	1,022920449	1,247190638	1,236913414
<i>Fam49a</i>	0,809081447	1,128258981	1,099373451	1,360681089	1,237157505
<i>AI480653</i>	0,847840146	1,053096637	1,082673235	1,213953602	1,06654877
<i>Tmc3</i>	0,437798899	1,029463488	1,059051427	1,044225963	0,94841641
<i>Grhl1</i>	0,34999505	1,111560263	1,058313907	1,055752526	1,005833957

<i>Nit1</i>	0,35729484	0,972856794	1,045623588	1,108553439	1,029119496
<i>Kdm1a</i>	0,348061148	0,982841202	1,004113503	1,013892286	1,01621619
<i>Wasl</i>	0,372050837	1,012879356	1,110442631	1,076913416	1,139833167
<i>Hmox2</i>	0,374780034	1,023187565	1,153584435	1,121689433	1,166077906
<i>Nono</i>	0,322483459	1,025506685	1,095470257	1,157081583	1,102671158
<i>Dock9</i>	0,361248281	1,016912735	1,217694831	1,084581316	1,091062431
<i>Man1a2</i>	0,357550803	1,108275197	0,994233826	1,147348927	1,096831911
<i>Ankrd12</i>	0,233406023	1,039777711	0,920146342	1,135845408	1,101021043
<i>Tbc1d15</i>	0,331154018	0,919758155	1,056650572	1,15673714	1,160815399
<i>Dicer1</i>	0,35681133	0,974939669	1,01614901	1,180913532	1,136494121
<i>BC017647</i>	0,296456189	0,964229707	1,030367425	1,148872099	1,222319912
<i>Ggnbp2</i>	0,407637951	0,92415134	1,223991059	1,052152579	1,171098553
<i>Arhgap11a</i>	0,315634294	0,891130167	1,211890688	1,125392983	1,216118699
<i>Mapre1</i>	0,315200857	0,954435075	1,247073838	0,934504723	1,204375913
<i>Tox4</i>	0,229329612	0,977795049	1,12087101	1,031234047	1,233051207
<i>Lsm12</i>	0,311344113	1,014352738	1,191974006	1,029100865	1,236489106
<i>Psmc4</i>	0,359510967	0,979848067	1,154208313	1,035982392	1,328454257
<i>Rchy1</i>	0,374129019	1,032735709	1,10510656	1,055518013	1,323610983
<i>Gtf2b</i>	0,315540247	0,785448031	1,054305015	1,026281874	1,129261688
<i>Eif1a</i>	0,348409093	0,776112046	1,112546722	1,109402586	1,153555705
<i>Psen1</i>	0,348679113	0,829307862	1,046118667	1,126752153	1,119448301
<i>Rsb1</i>	0,373378072	0,862310667	1,022909439	1,125206688	1,112865446
<i>Tnrc6a</i>	0,290845209	0,925873283	1,051487345	0,98614158	1,1738528
<i>Ndfip2</i>	0,258822423	0,934634171	1,036497128	1,018720699	1,149237843
<i>Rsf1</i>	0,323555229	0,924408799	1,05906307	1,010807252	1,120200178
<i>Gm7244</i>	0,420855047	1,013680845	1,098171265	1,247506856	1,101840898
<i>Lpcat1</i>	0,463768988	0,976057712	0,987838029	1,265108397	1,039810129
<i>Tgds</i>	0,447729758	1,020370239	1,035645885	1,165852405	1,139855525
<i>Ttc28</i>	0,447249322	0,9710465	0,975536653	1,144363701	1,130932438
<i>Zfp14</i>	0,466499	0,99165277	0,982548422	1,232323553	1,137361667
<i>Itpr1</i>	0,466110017	1,082431689	0,973635131	1,158951453	1,007971573
<i>Fdft1</i>	0,562584727	1,059662501	1,011858756	1,170514173	0,941128606
<i>Heatr5a</i>	0,572531515	1,107727505	1,063822536	1,12937997	1,050179946
<i>4930579G22Rik</i>	0,587412856	0,999076927	1,136975518	1,281182641	0,941697232
<i>Srrd</i>	0,535365286	1,071506057	1,172785805	1,17634075	0,897097087
<i>Polr2a</i>	0,444783837	1,112987376	1,202684824	1,189891267	1,318815758
<i>Cnot1</i>	0,431122848	1,152569099	1,283711771	1,142342341	1,348099743
<i>Gmeb1</i>	0,445960204	1,076468372	1,279053767	1,115721834	1,239414169
<i>Riok3</i>	0,446310677	1,052975972	1,293577743	1,181194682	1,295824188
<i>Ino80d</i>	0,41729825	1,095638987	1,105392014	1,088493194	1,320809609
<i>Eif4g3</i>	0,431295559	1,064122374	1,145640873	1,14861869	1,2916721
<i>Atp6v1d</i>	0,354888744	1,141096166	1,107954981	1,176269087	1,311553685
<i>Lims1</i>	0,313462899	1,046157711	1,110691693	1,210607097	1,20667787
<i>Nap1l4</i>	0,327867336	0,948888729	1,134676017	1,218830475	1,247026421
<i>Cltc</i>	0,284324887	1,08927062	1,149544041	1,157362398	1,287905905
<i>Supt6h</i>	0,283072889	1,076961302	1,162222483	1,154352863	1,318095288
<i>Zc3h11a</i>	0,323912248	1,075580081	1,140576945	1,131895221	1,295873574
<i>Erb2ip</i>	0,315166589	1,039075581	1,215222935	1,134949969	1,243396391
<i>Epc2</i>	0,320293812	1,066963411	1,184440049	1,211918669	1,328917393
<i>Cct6a</i>	0,355366866	1,027274658	1,180542595	1,165341829	1,395476281
<i>Scaf11</i>	0,344558744	1,083333528	1,139053886	1,30342516	1,356321999

<i>Asxl1</i>	0,384699879	1,063343232	1,210287949	1,275231189	1,339984716
<i>Ptpn12</i>	0,455089685	1,164069159	1,123565398	1,265349257	1,331660615
<i>Ddx46</i>	0,496975676	1,159536406	1,087847914	1,30249778	1,316228518
<i>Zbtb32</i>	0,458422432	1,106821569	1,063051857	1,255873799	1,327113996
<i>Serp1</i>	0,395291082	1,107598012	1,081350653	1,255738867	1,321863878
<i>Pdcd2</i>	0,449240618	1,185474895	1,150541844	1,259860849	1,212824722
<i>Mfap4</i>	0,464507194	1,150665938	1,088510188	1,292228739	1,19980623
<i>Polr1d</i>	0,40002843	1,041180259	1,131586361	1,318207687	1,254713468
<i>E330009J07Rik</i>	0,378375376	1,05436201	1,033239131	1,340577712	1,211322758
<i>Pigo</i>	0,560408664	1,045030537	1,019253988	1,11017815	1,229819212
<i>Herc3</i>	0,541280105	0,998181787	1,035001909	1,077817327	1,147537167
<i>Specc1l</i>	0,503786593	1,087718413	0,982160294	1,098618852	1,121971359
<i>Rab40c</i>	0,508864509	1,062516038	0,99423329	1,02557807	1,144617739
<i>Bcl7b</i>	0,409949086	1,114754897	0,982310652	1,005613592	1,182363061
<i>Nmi</i>	0,377336813	1,086789602	1,03196228	1,035255163	1,221741412
<i>Polr3gl</i>	0,421581542	1,048944103	0,962011988	1,221532472	1,204693108
<i>Tk2</i>	0,425255257	1,033751049	1,047882262	1,20080966	1,239350879
<i>2010002M12Rik</i>	0,505497746	1,062858615	0,95658564	1,139419505	1,296542516
<i>March6</i>	0,404482224	1,121011257	1,147084011	1,192485739	1,10563671
<i>1700052N19Rik</i>	0,433956734	1,174199586	1,123959724	1,106464333	1,084291372
<i>Jak2</i>	0,445177445	1,196308811	1,14328906	1,161500681	1,228932177
<i>Suclg1</i>	0,466866047	1,166065935	1,149698572	1,194879736	1,214806768
<i>Mtap</i>	0,471358509	1,147686851	1,080014777	1,127291799	1,182488886
<i>Zdhhc17</i>	0,489966735	1,147003477	1,072646869	1,146782973	1,186338311
<i>Jmjd1c</i>	0,494031355	1,02405477	1,126626781	1,125570376	1,205714152
<i>Trp53bp2</i>	0,467963005	1,017503812	1,142343229	1,142442053	1,215993912
<i>Tmem165</i>	0,472763031	1,052363226	1,193782195	1,034249597	1,178421174
<i>Hmg20a</i>	0,551654477	1,077736905	1,081998752	1,018244277	1,226073305
<i>Rbm24</i>	0,589255165	1,020867771	1,139907298	1,036175212	1,191598413
<i>Fez2</i>	0,464649277	1,000993004	1,044746072	1,126045364	1,305287284
<i>Hnrrnpr</i>	0,493801927	0,989777436	1,042912124	1,129345978	1,262623536
<i>Gorasp2</i>	0,480886071	0,960295977	1,108276018	1,113188529	1,298645288
<i>Nsd1</i>	0,521809452	1,033751154	1,108929576	1,149963323	1,294129045
<i>Thnsl1</i>	0,244098151	0,966365434	1,3219147	1,254908824	1,250630792
<i>Rps4x</i>	0,324844979	0,979179105	1,335109066	1,146300678	1,209157321
<i>Rnf19a</i>	0,275464938	1,108443227	1,331319736	1,328084511	1,217896985
<i>Rab10</i>	0,222843277	1,079219011	1,271912557	1,330361037	1,259359023
<i>D1Bwg0212e</i>	0,345163044	0,810950099	1,295211803	1,185156187	1,099052627
<i>Tns4</i>	0,248754039	0,82329675	0,936836798	1,223670902	1,380461822
<i>Bzw1</i>	0,23922166	0,710848742	1,064939843	1,275140933	1,35371096
<i>Gm2447</i>	0,315997317	0,743407733	0,973062499	1,410856508	1,203842671
<i>Tnfsf8</i>	0,307239093	0,861485006	0,946528048	1,454801777	1,294292154
<i>Ensa</i>	0,36781461	0,914947623	1,124127506	1,343457503	1,404850652
<i>Hnrrnpa1</i>	0,282953762	0,898273318	1,108215008	1,372218408	1,398238153
<i>Gm10052</i>	0,298908168	0,893097935	1,122696551	1,297206829	1,329579669
<i>Tmem60</i>	0,385632921	0,890080934	1,164985993	1,427600524	1,291564281
<i>Syncrip</i>	0,29747098	0,895201796	1,217869116	1,330101351	1,341214862
<i>Smndc1</i>	0,238968399	0,922579066	1,266268905	1,369778111	1,360213169
<i>Gm12191</i>	0,408880528	0,787495979	1,102009264	1,541732187	1,075463594
<i>Rpl30</i>	0,408641885	0,759929876	1,101985417	1,534197276	1,075433208
<i>Tmem93</i>	0,229143751	0,745872371	1,151044358	1,428037989	0,951683232

<i>Csrp1</i>	0,758925995	1,048757149	1,493286992	1,140544393	1,191036796
<i>Rab7l1</i>	0,746932464	1,07059353	1,536090219	1,088689234	1,292126695
<i>Npm3</i>	0,791010922	0,885106973	1,566933347	1,025972459	1,135861114
<i>Taldo1</i>	0,795396615	0,987137509	1,338566067	1,188199489	1,103134773
<i>Chaf1b</i>	0,816040457	1,124292673	1,33727617	1,188291156	1,04673777
<i>Naa10</i>	0,704674648	1,023367693	1,419284743	1,0987453	1,02627856
<i>1700064J06Rik</i>	0,912486084	0,902467845	1,429170616	0,990457224	1,354723314
<i>Fem1a</i>	0,92566511	0,941900152	1,382890357	1,01432768	1,354124387
<i>Slbp</i>	1,035740599	0,853334003	1,339658435	1,047694926	1,324974431
<i>Cic</i>	1,087665375	0,81792089	1,404365009	1,143068769	1,112976781
<i>H3f3b</i>	0,769225609	0,802937061	1,576502797	1,583819785	0,987315711
<i>Mrps2</i>	0,409664821	1,090576755	0,64045755	1,47084722	0,743234104
<i>Cdhr3</i>	0,338321707	1,152853224	0,709355507	1,411690519	0,700747341
<i>Flad1</i>	0,526807241	1,115589192	0,707204732	1,293907319	0,589352266
<i>Polr1a</i>	0,229718336	1,218027378	0,817692368	1,301056622	0,775861051
<i>Pyroxd2</i>	0,325051464	1,163863861	0,737250207	1,198485955	0,685656099
<i>Paqr8</i>	0,174681986	1,039931355	0,684820322	1,18407011	0,703553144
<i>Zg16</i>	0,420150531	1,243739006	0,454853826	1,323823458	0,92233785
<i>1110028F11Rik</i>	0,480354469	1,100215352	0,723109711	1,229912243	0,944362864
<i>Trub1</i>	0,623812595	1,024654309	0,820374619	1,339151149	0,893146978
<i>Ctdsp2</i>	0,42763651	0,960209459	0,833712717	1,32322949	1,102728307
<i>A330049M08Rik</i>	0,413963111	0,918708873	0,696572074	1,465685328	0,851834632
<i>Timm8a2</i>	0,294634662	1,298976054	1,000311593	1,393584897	0,969715073
<i>1700025G04Rik</i>	0,394933451	1,297618554	1,056707287	1,295800843	0,986260229
<i>Gcfc1</i>	0,374004058	1,252776334	0,996835205	1,307048659	1,18131085
<i>Zfp330</i>	0,367855406	1,217651516	0,997911212	1,248039713	1,102970252
<i>Vrk3</i>	0,34991414	1,15730311	0,809542366	1,194351592	1,061002562
<i>3230401D17Rik</i>	0,20494482	1,141360324	0,806888155	1,239491451	1,013324525
<i>Drosha</i>	0,542930238	1,235374354	0,869194842	1,310544555	0,852686469
<i>Mmp9</i>	0,438985646	1,302801957	0,804516524	1,256252152	1,028217653
<i>Litaf</i>	0,436652864	1,486454275	0,858043854	1,496074413	1,193827953
<i>Ccdc87</i>	0,365715111	1,357367509	0,864728438	1,507582576	1,05670058
<i>Slx4</i>	0,462865309	1,419982014	0,984269851	1,209371261	1,038989795
<i>Lbx2</i>	0,403560377	1,496732848	0,874091761	1,192130694	1,149965379
<i>2010010A06Rik</i>	0,324136771	1,685136091	1,02187587	1,526411293	1,544823932
<i>Btla</i>	0,212056225	1,623003232	1,214282054	1,692575588	1,543844126
<i>Tceb1</i>	0,244592369	1,820200526	1,45177008	1,627243276	1,541694743
<i>Ddx24</i>	-0,010610521	1,78657445	1,357210124	1,653949862	1,605725332
<i>Itm2a</i>	-0,340927139	2,060976849	1,414564037	1,302307852	1,141071734
<i>Il18bp</i>	0,542986912	1,844760758	1,533485366	1,430467856	1,376655827
<i>Tox</i>	0,475382605	1,804648344	1,74366172	1,608096	1,541879684
<i>1810032O08Rik</i>	0,460788149	1,683900202	1,397623603	1,784177242	1,496827988
<i>BC027231</i>	0,646770809	1,807227307	1,432129045	1,702600664	1,504201489
<i>2810001G20Rik</i>	0,287698997	1,815536573	1,745379473	1,791372438	1,303456855
<i>Acot7</i>	0,611320809	1,741386167	1,19634608	1,548023978	1,126233356
<i>Thap2</i>	0,615187415	1,708259618	1,305111537	1,383436971	1,216427352
<i>Zfp446</i>	0,457467217	1,847024556	1,211957696	1,232857691	1,227607829
<i>Gm766</i>	0,481798625	1,521479679	1,026388068	1,205765318	0,880889238
<i>Tnfsf11</i>	0,405652043	1,697535494	1,076355983	1,262728425	0,785627862
<i>AA986860</i>	0,545768052	1,499650465	1,353181049	1,319957593	0,796091216
<i>Mpi</i>	0,664074416	1,820654774	1,437869842	1,66030712	0,988742374

<i>Sypl</i>	0,559148801	1,847909918	1,363023098	1,638181972	1,213994116
<i>1700121N20Rik</i>	0,763125096	1,60536738	1,47473628	1,636745229	0,848498062
<i>Npc1</i>	1,262985741	1,256177952	1,413028148	1,375218953	1,449866031
<i>Klc3</i>	1,274043581	1,330826387	1,334089731	1,484494163	1,443859668
<i>Impa1</i>	1,245905016	1,379985991	1,394542378	1,411992764	1,43916746
<i>Atp6v1g3</i>	1,251206502	1,428695159	1,428550405	1,424802712	1,466827809
<i>Tex9</i>	1,261781801	1,458255433	1,357871187	1,385395762	1,37020621
<i>Tuba1c</i>	1,194616117	1,33847184	1,352283933	1,321856976	1,573977837
<i>Ehmt2</i>	1,172363062	1,394453731	1,325911235	1,334528681	1,496088277
<i>Btbd19</i>	1,257327877	1,406098941	1,24958313	1,348459967	1,547639235
<i>Sesn1</i>	1,166449792	1,37992582	1,213534861	1,386513708	1,445495614
<i>Isg20</i>	1,140728945	1,449126839	1,239744959	1,373534689	1,529487477
<i>Mapk7</i>	1,002467158	1,497084644	1,228236829	1,507286938	1,533759098
<i>Hdac5</i>	1,024375347	1,532104248	1,299043237	1,456377746	1,483629869
<i>Zfp414</i>	1,143153406	1,581692841	1,236537963	1,314412316	1,580421239
<i>Dapp1</i>	1,279974106	1,581205477	1,507335025	1,410891292	1,619556939
<i>Hmgcn1</i>	1,22886531	1,495826991	1,543212444	1,334524282	1,660002172
<i>Gm16907</i>	1,185625025	1,587066377	1,459006199	1,246336652	1,498553921
<i>Camk4</i>	1,255177798	1,462740887	1,639349688	1,33288557	1,433920558
<i>Eif2ak3</i>	1,174400326	1,475646139	1,629124243	1,402346524	1,446032596
<i>Hs2st1</i>	1,144622914	1,476050844	1,624446279	1,283036503	1,418931529
<i>Manba</i>	1,23384196	1,57709948	1,614851472	1,3239018	1,516843018
<i>Ift80</i>	1,155161875	1,427607536	1,429322556	1,316129897	1,480841032
<i>Zfpm1</i>	1,186733349	1,447463813	1,42408165	1,327821355	1,535704156
<i>Lrrc8d</i>	1,226403157	1,432304515	1,448226059	1,373063146	1,505303929
<i>Mcoln3</i>	1,220391267	1,455883931	1,461692455	1,302697446	1,426819631
<i>Themis</i>	1,182183873	1,312543392	1,50901126	1,242004203	1,518007242
<i>Ppp1r10</i>	1,186785678	1,413424958	1,482961447	1,264290755	1,566654063
<i>Hdc</i>	1,015316651	1,489275849	1,428654193	1,300547308	1,528650783
<i>Slc16a10</i>	1,041365011	1,474491239	1,439712463	1,376499229	1,43430023
<i>Tec</i>	1,079979302	1,530493531	1,538805667	1,30580154	1,45279785
<i>Impdh1</i>	1,310581359	1,421093993	1,529766284	1,438049781	1,678536123
<i>Rufy2</i>	1,273704802	1,434797813	1,560522615	1,436146688	1,711688567
<i>Dda1</i>	1,237280452	1,316325272	1,566100989	1,416411939	1,735874699
<i>Nt5c3l</i>	1,109282482	1,398061988	1,630881287	1,412306531	1,58458695
<i>Arid2</i>	1,097446461	1,42930248	1,576545404	1,416649948	1,578954887
<i>E330020D12Rik</i>	1,161773277	1,424505297	1,588822133	1,454345219	1,557954232
<i>Zfp395</i>	1,110793872	1,341217756	1,614489065	1,369500259	1,555413461
<i>Zbtb3</i>	1,35512873	1,665472012	1,325156735	1,251036069	1,567766772
<i>InsI6</i>	1,306000883	1,566121985	1,241105558	1,085605203	1,574447432
<i>Rraga</i>	1,168461899	1,672182748	1,503630334	1,043184365	1,642041738
<i>2610002D18Rik</i>	1,179673622	1,259552201	1,301916685	1,289525139	1,534009154
<i>Avpi1</i>	1,116788514	1,318277031	1,247893678	1,242057535	1,539522964
<i>Cabp1</i>	1,083195557	1,280959617	1,412840949	1,224378028	1,571013724
<i>Rundc1</i>	1,094442558	1,348246357	1,354070454	1,250318325	1,560129079
<i>Ppcdc</i>	1,213846936	1,277650265	1,355466093	1,14459253	1,561158224
<i>Ech1</i>	1,261674146	1,349509818	1,401134315	1,151174879	1,525980584
<i>Slx1b</i>	1,128426365	1,366228929	1,400905968	1,156596315	1,519767956
<i>Tigd2</i>	1,175323231	1,351927753	1,429246003	1,157093222	1,514340965
<i>Nup62-il4i1</i>	1,098695363	1,278353735	1,476645519	1,214117034	1,756867398
<i>Zfp687</i>	1,120769341	1,265198778	1,50249217	1,321017638	1,773616571

<i>Kif3b</i>	1,002908973	1,253135174	1,514640783	1,174702538	1,730674917
<i>N4bp2</i>	1,104568746	1,228150551	1,561074284	1,297943418	1,584726364
<i>Dlst</i>	1,082268526	1,266626689	1,524720406	1,343058699	1,637805107
<i>4930429B21Rik</i>	1,19596494	1,224566654	1,487204982	1,281608277	1,596580234
<i>Slc24a6</i>	1,279148162	1,206158767	1,452806229	1,239733081	1,565558155
<i>Ppp1r15b</i>	1,269618951	1,28123011	1,457069111	1,317699707	1,635185997
<i>Mex3d</i>	1,187136935	1,239621902	1,411496316	1,235972333	1,653176768
<i>Tead3</i>	1,354736436	1,165030647	1,459547839	1,270010839	1,691793008
<i>B3gnt9-ps</i>	1,266446116	1,132831089	1,407808957	1,282347476	1,730132832
<i>Fam38a</i>	1,244266302	1,090545845	1,330803124	1,19727641	1,731510141
<i>Fbxl8</i>	1,202311003	1,089823041	1,387439844	1,149447089	1,695467011
<i>Ankrd9</i>	1,36617688	1,202424579	1,405123475	1,357696487	1,804145778
<i>4933403G14Rik</i>	1,367786196	1,180367016	1,368026077	1,286991035	1,831098038
<i>Esrra</i>	1,300727218	1,283548123	1,382080538	1,353225469	1,786729011
<i>Bst2</i>	1,263515178	1,241561168	1,447513693	1,230477955	1,894070751
<i>Rxrb</i>	1,256401235	1,167919938	1,479588347	1,306368892	1,870312316
<i>Zmiz2</i>	1,253472087	1,351119785	1,428997651	1,235260015	1,830797909
<i>Fcho1</i>	1,315286914	1,270151413	1,446702971	1,248194676	1,780106755
<i>Slc11a1</i>	1,208906934	1,231095054	1,544985111	1,029161054	1,671893158
<i>2310061C15Rik</i>	1,249491661	1,288841971	1,606753266	1,116745339	1,682850247
<i>Pgpep1l</i>	1,34412764	1,276026707	1,496305041	1,119129613	1,64808359
<i>Map3k8</i>	1,265674219	1,290193269	1,453108614	1,0513989	1,66915126
<i>Tmem120b</i>	1,406305625	1,305361653	1,64989325	1,12266525	1,692632281
<i>Hilpda</i>	1,384891029	1,351223239	1,619401705	1,250083557	1,683454743
<i>Cbx6</i>	1,413644985	1,380694663	1,513468541	1,148347578	1,746767927
<i>Gas2l1</i>	1,389467176	1,209471171	1,430682167	1,206557476	1,44109221
<i>Lrrc8b</i>	1,38328978	1,249826139	1,467468552	1,276720121	1,485930157
<i>Slc12a3</i>	1,429535517	1,235466476	1,423791915	1,248212021	1,525908283
<i>Hs6st1</i>	1,397667221	1,219760738	1,395616624	1,219885568	1,543860897
<i>Nek8</i>	1,356352276	1,357744897	1,477027099	1,194934083	1,581809652
<i>Pkm</i>	0,720364082	1,240114422	1,378937922	1,418555039	1,354055096
<i>Itpr1l1</i>	0,72124365	1,211400908	1,329519748	1,519978682	1,339033868
<i>Ankrd46</i>	0,772663066	1,329745526	1,306716206	1,538429475	1,290650177
<i>Ctage5</i>	0,868863255	1,374742308	1,24500382	1,505272578	1,442949009
<i>Cyp4f17</i>	0,782372696	1,265841874	1,188713294	1,4200169	1,509984544
<i>Twsg1</i>	0,975596362	1,350717167	1,329139389	1,416343815	1,346478054
<i>Hspbap1</i>	1,01260578	1,326561701	1,24251212	1,439534114	1,417515624
<i>Lclat1</i>	0,919332119	1,346705996	1,315200137	1,347155971	1,403073272
<i>Aak1</i>	0,883909482	1,344811729	1,27978343	1,418878798	1,442074008
<i>Tlk1</i>	0,99152782	1,281374492	1,302312177	1,300745264	1,36178368
<i>Gm1647</i>	1,019384489	1,310939487	1,28420076	1,302257042	1,344558326
<i>Anks1</i>	1,050441272	1,344085501	1,318222937	1,344230936	1,378178682
<i>Lif</i>	0,990122006	1,16902254	1,239387613	1,309094386	1,440464166
<i>Top2a</i>	0,981256489	1,125522078	1,235150355	1,391034338	1,358930248
<i>Atf6b</i>	1,037375605	1,255974429	1,13833056	1,379664561	1,366345873
<i>4930539E08Rik</i>	0,97648419	1,15217232	1,394044709	1,267233382	1,277039252
<i>H2afv</i>	0,884536353	1,005430768	1,428455505	1,309606044	1,316614098
<i>Actn4</i>	0,944670211	1,105345699	1,351709926	1,180741308	1,37847961
<i>Papd7</i>	0,948091743	1,102145983	1,406491272	1,259660399	1,454588981
<i>Grina</i>	0,984290255	1,072723604	1,365677505	1,422120923	1,428826365
<i>1600027N09Rik</i>	0,997415993	1,078118509	1,428958022	1,383001857	1,494419158

<i>Gabrr2</i>	0,860911537	1,149681013	1,38842663	1,431260115	1,45350008
<i>Stmn1</i>	1,047256003	1,098159512	1,377647113	1,312594407	1,398215921
<i>Letm2</i>	1,083966781	1,0834433	1,271148166	1,301754952	1,395249811
<i>1700029G01Rik</i>	1,14121096	1,167688434	1,414190769	1,322723591	1,449481771
<i>Fbxo42</i>	1,135285612	1,152362063	1,360608315	1,290664438	1,476567253
<i>Impdh2</i>	1,131450893	1,062825116	1,307426413	1,459039098	1,358292881
<i>A630072M18Rik</i>	0,975675777	1,436397628	1,430367877	1,574128835	1,638322835
<i>Mapk3</i>	1,028761297	1,391680459	1,508291101	1,505563256	1,665785175
<i>Cstad</i>	1,136984381	1,437934815	1,361472839	1,554242798	1,618201697
<i>Thada</i>	1,063148098	1,338471847	1,457489127	1,396584821	1,606450407
<i>Prps1l3</i>	1,02536191	1,322178654	1,379742288	1,450251715	1,694697056
<i>Pdlim2</i>	1,010925797	1,335954821	1,545496037	1,620313667	1,579115519
<i>Gatsl3</i>	0,936262863	1,308355607	1,516595131	1,653064074	1,462365805
<i>Sardh</i>	1,056966593	1,27466123	1,555527613	1,274906784	1,457324435
<i>Birc2</i>	0,976427862	1,3391856	1,585620114	1,312027878	1,556757188
<i>Map3k12</i>	0,930605717	1,41947238	1,579748368	1,275446056	1,441877112
<i>Mxi1</i>	1,080072779	1,422949031	1,567220435	1,431353205	1,393472413
<i>Ccnb1</i>	0,981877382	1,368309462	1,669322991	1,395451406	1,435013245
<i>Upb1</i>	1,008081286	1,255711447	1,368870201	1,387695718	1,438376563
<i>Traf2</i>	1,006695626	1,288186965	1,386977202	1,382102472	1,403334467
<i>Arl16</i>	1,010997501	1,295503901	1,344444426	1,395849814	1,4804601
<i>Nisch</i>	1,014970183	1,326185054	1,369665682	1,353820795	1,399836946
<i>Unc45a</i>	1,032956486	1,318555936	1,37026635	1,372762833	1,442196282
<i>Ctsb</i>	1,001617003	1,391222412	1,380513456	1,343399629	1,440996682
<i>Fbxo25</i>	0,971442167	1,264671885	1,472534615	1,368499447	1,389597979
<i>Zfp668</i>	1,028844073	1,408709745	1,50344986	1,352116975	1,507855022
<i>Sdhb</i>	1,000634368	1,387368669	1,526716421	1,374955538	1,489672992
<i>Cdkn2aipnl</i>	1,042399956	1,37722771	1,482014022	1,41465837	1,472761149
<i>Taok3</i>	0,974706735	1,405759564	1,448607602	1,437181917	1,554416076
<i>Zfp553</i>	1,050252162	1,159511637	1,316603227	1,32320238	1,5210489
<i>Srpk2</i>	1,089322009	1,177480898	1,319697449	1,362620004	1,632197854
<i>Syvn1</i>	1,068017241	1,205589867	1,316449274	1,524705579	1,573667576
<i>Mrps24</i>	1,060726739	1,186408082	1,270534723	1,465793639	1,627492356
<i>Rnf139</i>	0,916297764	1,306354329	1,281717997	1,378766044	1,594356205
<i>Zc3h12d</i>	0,953403109	1,251782824	1,280254471	1,384600384	1,669995944
<i>Pml</i>	0,882328134	1,193558489	1,293978704	1,377526634	1,580083471
<i>C80913</i>	0,819832755	1,245020292	1,497746569	1,406147966	1,666621534
<i>Plekha2</i>	0,800177505	1,196195285	1,434481206	1,414486561	1,683256303
<i>Rnf2</i>	0,874997487	1,196703805	1,529553904	1,378419378	1,704728874
<i>Acot8</i>	0,878957871	1,252001757	1,404359548	1,394911576	1,751825595
<i>Ap1m2</i>	0,932107763	1,253638631	1,38709393	1,430812937	1,689927803
<i>Bahd1</i>	0,881003422	1,274390765	1,528815721	1,367028953	1,655795561
<i>Wdr20a</i>	0,942929112	1,258827737	1,499643973	1,314730278	1,6549675
<i>Preb</i>	0,882804763	1,232044099	1,476996821	1,333477245	1,581421693
<i>E2f3</i>	0,947923647	1,330130611	1,401353643	1,27456327	1,505591227
<i>Tac4</i>	0,943418623	1,307373807	1,382451493	1,27809311	1,500317094
<i>Iffo2</i>	0,933401365	1,37089187	1,411576492	1,289911388	1,456286313
<i>Uvrug</i>	0,930331934	1,374372788	1,413342382	1,305849484	1,443264948
<i>Reep3</i>	0,830901929	1,280670027	1,397799229	1,292564147	1,54420929
<i>Lta4h</i>	0,816916126	1,33063484	1,370920066	1,25802106	1,550036259
<i>Scamp2</i>	0,901869431	1,263125522	1,322841142	1,202954933	1,491737715

<i>Slc23a2</i>	0,831339481	1,256360609	1,327787765	1,19746652	1,449000851
<i>Ece1</i>	0,930406698	1,254837434	1,360459988	1,270998738	1,387035498
<i>Itm2c</i>	0,8911206	1,328886147	1,138297354	1,380114103	1,547449258
<i>A330035P11Rik</i>	0,924602464	1,365427055	1,235415809	1,341437589	1,500516797
<i>Mrps21</i>	0,813033104	1,406218634	1,125680002	1,255095259	1,494311906
<i>Trim21</i>	0,762286645	1,439229729	1,332099997	1,246665147	1,6337304
<i>2610035D17Rik</i>	0,674502479	1,356681065	1,323359351	1,374398716	1,620757041
<i>Dennd4b</i>	0,873133463	1,350719414	1,306694414	1,373012355	1,652602114
<i>Lmna</i>	0,820405836	1,327689259	1,329173807	1,405587708	1,62663354
<i>E430018J23Rik</i>	0,786804373	1,431975789	1,282721165	1,389128358	1,600417205
<i>Atp6v1e1</i>	0,777160134	1,36556996	1,403082773	1,353441684	1,46862886
<i>Enoph1</i>	0,732365438	1,364596783	1,396939169	1,363436891	1,506554647
<i>Ppp1r13b</i>	0,778797618	1,322146478	1,331079828	1,37834647	1,4597434
<i>Tbc1d10a</i>	0,837130231	1,359774886	1,449835334	1,363443325	1,494266279
<i>Sufu</i>	0,87558031	1,389203497	1,371529701	1,396317733	1,463818144
<i>Atg12</i>	0,833281971	1,345019465	1,499037534	1,092338357	1,592619235
<i>Zfp839</i>	0,930889294	1,252981219	1,489150608	1,096381931	1,552138908
<i>Tmed7</i>	0,96847072	1,350564308	1,430529787	1,090912502	1,585443123
<i>Gfod1</i>	0,947278563	1,388857292	1,485588831	1,149573254	1,632787666
<i>Erc2</i>	0,930046605	1,412173315	1,233644353	0,99458634	1,524102921
<i>Il4i1</i>	0,830068085	1,337111177	1,3132114	1,007034151	1,585146975
<i>Scaf1</i>	0,844402007	0,981254799	1,279670623	1,215782957	1,597656582
<i>Gga3</i>	0,8336519	0,997644094	1,376607267	1,188798699	1,60810174
<i>Eno2</i>	0,853896772	0,89782469	1,437804147	1,206533907	1,592994495
<i>Tenc1</i>	0,787160708	0,956170469	1,347754836	1,240937318	1,485606298
<i>Apeh</i>	0,778136067	0,972040761	1,292397599	1,234183246	1,497654756
<i>4930486L24Rik</i>	0,856240781	0,8810765	1,27262611	1,263948301	1,464610277
<i>Bsg</i>	0,863313136	1,037118986	1,390149188	1,283357865	1,51325667
<i>Serinc3</i>	0,91372381	1,066526783	1,332516305	1,285663299	1,517592519
<i>Apbb1ip</i>	0,840511404	1,112469475	1,412496509	1,296254548	1,501157004
<i>Zfp879</i>	0,901689011	1,030752815	1,403195391	1,18542842	1,509966612
<i>Tfap4</i>	1,089955333	0,975351326	1,209771577	1,144026089	1,487639289
<i>Dnmt1</i>	1,011427112	0,945571667	1,209872636	1,159126382	1,474438298
<i>Tinf2</i>	0,985253449	0,954144007	1,254410976	1,205058085	1,379120684
<i>Lass2</i>	0,99607966	0,926915326	1,217649094	1,377585352	1,448930577
<i>Arid3a</i>	0,961223263	0,970126953	1,282128274	1,283845761	1,51934591
<i>Pigv</i>	0,86576891	1,15475286	1,144981963	1,298457709	1,696559377
<i>Pkn1</i>	0,912562533	1,25722393	1,181473435	1,257197105	1,645955328
<i>AK010878</i>	0,947507181	1,073413195	1,212724315	1,288073948	1,646962787
<i>Tmem134</i>	0,947772142	1,086639432	1,170739946	1,247640868	1,584782909
<i>Pias4</i>	0,982363907	1,145764637	1,191916661	1,193750719	1,728541928
<i>Slc39a1</i>	0,886509464	1,12369175	1,240579596	1,196896798	1,801841411
<i>1110008J03Rik</i>	0,947971793	1,13260226	1,141053517	1,24211685	1,794648497
<i>Sgsh</i>	0,972589069	1,0836595	1,163278897	1,306628692	1,780652637
<i>Ctsz</i>	1,004467576	1,041672949	1,399501757	1,24243064	1,566266407
<i>Hnrnpf</i>	1,075691193	1,10061419	1,426389821	1,230605058	1,600590635
<i>Gm5868</i>	1,033187947	1,087005284	1,306787386	1,24271246	1,550780311
<i>Akirin1</i>	0,972515521	1,086681609	1,308489107	1,18220565	1,579938052
<i>Tmem86b</i>	1,042624187	1,10866622	1,377762636	1,090914816	1,597554008
<i>Rexo1</i>	1,109293066	0,996394499	1,272946998	1,226239418	1,632350837
<i>Gm11974</i>	1,01671312	1,045645945	1,234444719	1,133562307	1,639748994

<i>Atp5h</i>	1,167460139	0,981902312	1,739835523	1,205518186	1,426092878
<i>Arl4a</i>	1,29508748	0,916567781	1,647685854	1,292409283	1,325280882
<i>Zfp161</i>	1,094453885	0,938882057	1,518848868	1,1866037	1,440495369
<i>Cfl2</i>	0,87387098	0,975179816	1,718385302	1,198461857	1,418414728
<i>Srp14</i>	0,980107776	0,866158561	1,684113878	1,22235612	1,258916026
<i>Rnf126</i>	0,984783493	1,108391165	1,547756907	1,153684614	1,555286212
<i>Nop56</i>	1,041358722	1,199087101	1,564331418	1,234316899	1,592176075
<i>Capn12</i>	1,186417783	1,082219796	1,515892277	1,179301388	1,624443793
<i>Gp5</i>	1,143672699	1,132409969	1,440278448	1,137015838	1,596754638
<i>Lypd3</i>	1,131354898	1,135666039	1,637279254	1,108782149	1,55762992
<i>Prss53</i>	1,158235887	1,18950866	1,697949434	1,120479329	1,538580056
<i>Arf6</i>	1,09010166	1,133085854	1,535704628	1,05950267	1,464430256
<i>Fbxw4</i>	1,106046079	1,094804822	1,498394915	1,148980315	1,413024174
<i>Prkcb</i>	1,175741185	1,190392297	1,441423657	1,048636447	1,464246032
<i>Ntpcr</i>	1,36083068	1,068410848	1,503075074	1,289116393	1,406208904
<i>Tmem102</i>	1,377926241	1,091809163	1,546048297	1,304211225	1,401666441
<i>Tigd5</i>	1,44035263	1,032551871	1,581949571	1,403222493	1,516760743
<i>Cd3eap</i>	1,379739578	1,120606485	1,639443942	1,505341471	1,249430408
<i>Dnajc4</i>	1,277007849	1,084631968	1,52355879	1,595433106	1,316828507
<i>C030044B11Rik</i>	1,321755463	1,178798293	1,921790996	1,421489714	1,52631489
<i>Ino80b</i>	1,238472307	1,139774774	1,865459471	1,449310308	1,346805383
<i>B4galnt4</i>	1,047135727	1,437671461	1,506498906	1,251291136	1,869736622
<i>Plec</i>	1,081048928	1,40187956	1,449958278	1,421479906	1,901946387
<i>Klf6</i>	0,988574647	1,356736688	1,526733421	1,395367844	2,009659506
<i>Zfp646</i>	1,014319059	1,348127901	1,653776565	1,388988722	1,946892133
<i>Tmem200b</i>	1,146058206	1,503647666	1,398570581	1,355012267	2,063429022
<i>Dnajb13</i>	1,013641803	1,259837004	1,338259309	1,230466269	1,816685479
<i>Cmah</i>	0,98097063	1,221743326	1,388339951	1,277171726	1,795161225
<i>Psmc3ip</i>	1,013702658	1,395437169	1,377965964	1,222286824	1,791626973
<i>Cnih</i>	1,006796271	1,367357717	1,332259777	1,276186331	1,807994077
<i>Gnptg</i>	0,854523259	1,300320397	1,385089046	1,288850274	1,872313549
<i>Pank4</i>	0,876335092	1,243423639	1,38761272	1,315734947	1,845722417
<i>Pdp2</i>	0,891946223	1,324760419	1,405666327	1,3660021	1,940814083
<i>Snrpd3</i>	0,857526414	1,376965378	1,53079037	1,486487558	1,880329769
<i>Slc37a4</i>	0,875614089	1,478606276	1,50446565	1,471577051	1,94433192
<i>Mcmbp</i>	0,887717884	1,397097741	1,571967363	1,666042247	1,917312504
<i>Usf1</i>	0,954953146	1,357455161	1,506033194	1,624483485	1,939013303
<i>Ssh3</i>	1,144471766	1,43989755	1,513859996	1,603020031	1,93619245
<i>Leng8</i>	1,098108629	1,397706811	1,412582057	1,632046021	1,946073996
<i>Msto1</i>	1,111786242	1,299831952	1,438897916	1,55958417	1,932237639
<i>Rtp3</i>	1,068120692	1,356966398	1,479591108	1,625860442	1,752978723
<i>Gipc1</i>	1,049469091	1,290021861	1,469856093	1,601290811	1,799131234
<i>Pdk1</i>	1,078590225	1,326475094	1,563659445	1,610415276	1,714549507
<i>Psemb3</i>	0,899769936	1,341131305	1,524080937	1,657629128	1,738286035
<i>Prkab1</i>	1,012309063	1,216348666	1,434378799	1,459878552	1,739447427
<i>Agxt2l2</i>	1,006502533	1,26750819	1,42106261	1,49456556	1,81544559
<i>Tnfrsf14</i>	0,98754789	1,183252939	1,51254546	1,487822238	1,796866974
<i>Mppe1</i>	0,970020272	1,296452332	1,527652516	1,395747547	1,703999842
<i>Tmem206</i>	0,983017086	1,279031449	1,511053074	1,37052274	1,757988301
<i>Ccdc69</i>	1,023676512	1,285391445	1,475257922	1,426918776	1,710291205
<i>Pld3</i>	1,192708565	1,390320169	1,768683502	1,36938151	1,842010614

<i>Ninj2</i>	1,191017856	1,419463774	1,754317665	1,46029043	1,834393981
<i>Irs2</i>	1,081903742	1,488374326	1,79757915	1,316903197	1,823943034
<i>Ube2d1</i>	1,111189288	1,525263093	1,632363707	1,477323978	1,85529407
<i>Ralbp1</i>	1,111817292	1,415000263	1,620155159	1,447805408	1,823823824
<i>Doc2a</i>	1,022493515	1,386781308	1,609010548	1,31688502	1,836676172
<i>Zcchc2</i>	1,003499715	1,368444515	1,655638943	1,291479918	1,717041519
<i>Exosc2</i>	1,068606062	1,291176266	1,660059775	1,375246521	1,759856843
<i>Ccdc12</i>	1,124534442	1,317191146	1,571414025	1,40179858	1,773606115
<i>Tyropb</i>	1,14987006	1,397727983	1,75003118	1,203456282	1,726067398
<i>Mxra7</i>	1,168365157	1,317676628	1,668727916	1,19772363	1,755972163
<i>Gtf2ird2</i>	1,230195122	1,324115071	1,799917508	1,244769556	1,707976396
<i>Aagab</i>	1,29817903	1,422195504	1,72037151	1,169361844	1,835451439
<i>Txn1</i>	1,248627769	1,223333804	1,613007687	1,305150615	1,834214635
<i>Glrp1</i>	1,116979333	1,255358418	1,70525923	1,252594525	1,837642498
<i>Wbp11</i>	0,960233793	1,181152512	1,833443638	1,285947184	1,743213832
<i>Dhps</i>	1,054469057	1,017874069	1,696457802	1,365139604	1,886682088
<i>Nosip</i>	1,059626892	1,232578426	1,745113193	1,21027172	1,999352538
<i>P2rx7</i>	0,977177481	1,509460801	1,467810169	1,461140674	1,581800235
<i>Slc7a1</i>	1,066166128	1,564422324	1,466008143	1,487922651	1,60783944
<i>Por</i>	0,989938003	1,670996291	1,516182106	1,492179187	1,544808121
<i>Rere</i>	0,993491997	1,493830959	1,455596145	1,454405397	1,494722876
<i>Sik3</i>	0,920602212	1,498397127	1,484367242	1,465073853	1,460801018
<i>Hbs1l</i>	0,913044382	1,519781969	1,566886466	1,390880577	1,54286586
<i>Mkrn1</i>	0,906808464	1,502683161	1,562034994	1,447771363	1,521083503
<i>Cand1</i>	1,053291186	1,500435622	1,605728571	1,544958746	1,63243526
<i>Jmjd8</i>	1,037760176	1,491894796	1,59699136	1,482081829	1,580677004
<i>Slc5a3</i>	0,93234223	1,555202877	1,601010984	1,524666726	1,616895362
<i>Ndufb4</i>	0,91825098	1,522895567	1,702932102	1,533663381	1,596078408
<i>Arl8b</i>	0,996482838	1,478173666	1,687455187	1,556252794	1,558835476
<i>Rapsn</i>	0,997559674	1,619319386	1,661260528	1,532403289	1,643218037
<i>Ccdc90a</i>	1,025633509	1,643937211	1,727877343	1,543039518	1,649026588
<i>Susd1</i>	1,081588938	1,686482885	1,536631913	1,464229721	1,591894825
<i>Lrp10</i>	1,169871564	1,657727095	1,573953203	1,439243751	1,589866265
<i>Tufm</i>	1,060459937	1,662885119	1,528733001	1,509850602	1,768243055
<i>Donson</i>	0,9605881	1,754039969	1,486737152	1,354490183	1,623775105
<i>Creb3</i>	0,616694946	1,649097098	1,616174918	1,410972823	1,538731241
<i>Spcs3</i>	0,719371883	1,709747067	1,550664161	1,525153976	1,54193561
<i>Qsox1</i>	0,786070587	1,641857711	1,631799965	1,387284078	1,392699361
<i>2810046L04Rik</i>	0,802919976	1,588325524	1,625464905	1,38632044	1,664418593
<i>Slc3a2</i>	0,803568404	1,524579172	1,622677088	1,337386062	1,643098003
<i>Jarid2</i>	0,695665395	1,491840137	1,562403315	1,431382048	1,62127426
<i>Ppp6r1</i>	1,049823257	1,492366917	1,67356069	1,287716432	1,710630933
<i>Foxj2</i>	1,008993656	1,496746751	1,597499368	1,407649933	1,676048244
<i>Alkbh2</i>	0,924061543	1,618909228	1,590788096	1,336918355	1,756233163
<i>Rxfp4</i>	0,857283118	1,559973953	1,537658241	1,132651957	1,785718632
<i>Cstf2t</i>	0,877146996	1,588426773	1,504303634	1,215189878	1,792024925
<i>Pex12</i>	0,962181257	1,699809716	1,634201668	1,359737633	1,913958818
<i>1810046J19Rik</i>	1,019844787	1,734884138	1,733850422	1,272594936	1,883470967
<i>Tcap</i>	0,526147611	1,445428375	1,51746602	0,603252346	1,315169412
<i>Rpl10a</i>	0,540244352	1,45398933	1,321843428	0,751634599	1,438461736
<i>Ikzf2</i>	0,749240762	1,200011108	1,754992201	0,627558779	1,639558618

<i>Cnpy2</i>	0,883110239	1,35503134	1,617231331	1,177737419	1,327666752
<i>Mxd4</i>	0,742385558	1,360598233	1,532815148	1,13420921	1,327262854
<i>Ifi27l2a</i>	0,707365611	1,462042702	1,626181844	0,933982273	1,208578882
<i>Atat1</i>	0,698447764	1,395465198	1,72240155	1,014051735	1,61747302
<i>Chmp1b</i>	0,848323867	1,327636655	1,750482387	1,145329961	1,59278935
<i>Myo1c</i>	1,150811199	0,99022696	1,354540343	0,815957226	1,405227685
<i>Ankrd60</i>	1,247168122	0,958493543	1,39147285	0,846211754	1,411252111
<i>Rgs16</i>	1,155959301	1,171535856	1,564399564	0,701911877	1,514476462
<i>Dnajb3</i>	1,067393595	0,904849171	1,470550168	0,629887656	1,570843392
<i>Gja8</i>	0,834768694	0,918371422	1,48954383	0,619168031	1,456763708
<i>Exoc3l</i>	1,027286741	1,060361676	1,492107139	0,798460511	1,41566829
<i>Gpr55</i>	0,874094023	0,944665259	1,5389218	0,870918905	1,487118362
<i>Afap1</i>	0,963259272	0,928806385	1,389601012	0,772674972	1,141667994
<i>Hsd17b11</i>	1,033802621	0,948881019	1,279288029	0,74743216	1,150926688
<i>Hsd17b1</i>	1,152011528	0,965587695	1,425695882	0,756351136	1,132425676
<i>Atp5k</i>	0,931174916	1,15364057	1,464292075	0,837093252	1,177034123
<i>Gm17746</i>	0,96618381	1,933270484	1,785630569	1,137257816	1,03568502
<i>Il2rg</i>	1,072335476	1,843258122	1,778962074	0,951134593	1,159116254
<i>Clec2d</i>	0,400028296	1,594121919	2,172525002	1,246186623	1,471146182
<i>Arl14</i>	0,783322636	1,634202539	0,815568312	1,772697743	0,895581493
<i>1810009A15Rik</i>	0,737501388	1,277802564	0,805200771	1,766637948	1,038116769
<i>Gdf9</i>	0,883999875	1,451339997	1,11460111	1,886140102	1,085217772
<i>Nudt17</i>	0,851113262	1,474361407	0,971628947	1,686975074	1,154511247
<i>Dnajc30</i>	1,424922728	1,174847377	0,930136449	2,18009489	0,829836087
<i>St3gal2</i>	1,068928177	2,24558042	1,352588392	1,978798857	1,055532519
<i>Abra</i>	1,006754953	1,863119791	0,99850936	1,725722672	1,098649522
<i>Il21</i>	0,079159271	1,656981238	0,207825734	2,009452603	0,494316196
<i>Tmem64</i>	0,253253533	1,722974554	0,74093015	1,862838946	0,954934439
<i>Hs3st3b1</i>	0,02797027	1,408320904	0,641548792	2,342141579	1,575706731
<i>Igfbp4</i>	0,314397516	1,330663066	1,102341179	2,709337401	1,955122682
<i>Dynlt1f</i>	-2,239046644	1,757586556	0	2,484424321	2,989876519
<i>Dynlt1c</i>	-2,258084694	1,774612081	0	2,504256813	3,010974929
<i>Cul3</i>	0,211038531	1,41149022	1,470830538	1,514192002	1,589743527
<i>Xaf1</i>	0,11156157	1,461922862	1,451544062	1,590741341	1,657862877
<i>Golph3</i>	0,353273053	1,394955555	1,466321061	1,633091049	1,725343675
<i>Birc3</i>	0,365363451	1,387968356	1,460453452	1,573146937	1,673849687
<i>Gt(ROSA)26Sor</i>	0,344536429	1,446218733	1,471742603	1,598194388	1,603580517
<i>Pabpc1</i>	0,154122748	1,200465495	1,507031605	1,765739305	1,674910069
<i>Slfn8</i>	0,216966907	1,11855472	1,564239651	1,538513511	1,825971892
<i>Trim34a</i>	0,260998571	1,119027955	1,48440293	1,547858493	1,73730812
<i>Rpl27</i>	0,296652946	1,030114906	1,475720052	1,514793833	1,824946888
<i>Ythdf2</i>	0,408945652	1,236612578	1,561121176	1,524759567	1,7403443
<i>Mat2b</i>	0,455341508	1,241590686	1,543575722	1,580282798	1,784372186
<i>Ifi35</i>	0,351699741	1,204539408	1,463042633	1,580711433	1,73800277
<i>Marveld1</i>	0,419893297	1,288583448	1,480522162	1,551400754	1,827874896
<i>Tm9sf2</i>	0,379302716	1,284973896	1,456016009	1,545869119	1,818255383
<i>Glpr1</i>	0,249354291	1,252428846	1,500537169	1,522639452	1,710554947
<i>Actr2</i>	0,288398401	1,238328607	1,568453636	1,482478722	1,790728782
<i>Btf3</i>	0,163981631	1,197364728	1,580157944	1,440193284	1,660105882
<i>Cbfb</i>	0,267094362	1,109008687	1,440405796	1,384572484	1,696709653
<i>Zgpat</i>	0,335344011	1,140312664	1,490388526	1,427675445	1,751240374

<i>Pde7a</i>	0,300043682	1,340280627	1,645007504	1,412272238	2,149737444
<i>Rpl5</i>	0,208350132	1,204454719	1,57891112	1,617678976	2,004383567
<i>1700001K23Rik</i>	0,208315911	1,052641185	1,213109075	1,694010569	1,956634794
<i>Rcn1</i>	0,211991429	0,963529616	1,095783764	1,643969187	1,869864964
<i>Dph5</i>	0,071670626	1,179831669	1,279142252	1,67083308	1,982779002
<i>Rapgef6</i>	-0,068977719	1,168917327	1,21316063	1,50218883	1,687657346
<i>Sos1</i>	0,245101154	0,967477284	1,478454229	1,13670147	1,769064628
<i>Nlrc3</i>	0,357284596	1,041243347	1,282796446	1,143890606	1,80688269
<i>Zfp869</i>	0,259335412	0,962105387	1,47764598	1,346679699	1,977729587
<i>Gm12657</i>	0,16541241	1,097604421	1,441951573	1,409321961	1,874885153
<i>Crtam</i>	0,031344538	1,039233876	1,649929073	1,091751435	1,856584853
<i>Rab8a</i>	0,353506415	0,79639134	1,501460123	1,594784432	2,080581197
<i>Sike1</i>	0,313626347	0,62399317	1,293920967	1,606575652	2,212038588
<i>Adam19</i>	0,035864605	0,818446652	1,727218139	1,533163156	2,203834196
<i>Arpc4</i>	0,559612471	1,021411193	1,471802166	1,544923256	1,654715778
<i>Mov10</i>	0,553144174	1,134073813	1,502472657	1,568124111	1,781546487
<i>Ube2j2</i>	0,489137249	0,989425179	1,456916126	1,469916042	1,814773927
<i>Oas1b</i>	0,445285545	1,075953656	1,637511394	1,58137442	1,683455194
<i>Rpl35</i>	0,473202774	0,986981033	1,658322825	1,444909339	1,679857243
<i>Ccnt2</i>	0,400515948	1,169152482	1,599616944	1,418525571	1,647204463
<i>Wdr1</i>	0,437817443	1,186200256	1,535882106	1,358202034	1,71673684
<i>Eif4e</i>	0,43993249	1,241100017	1,538549316	1,416003824	1,608220829
<i>Sfrs18</i>	0,43347101	1,199536308	1,534677889	1,430783888	1,567965791
<i>Ube2n</i>	0,497638024	1,235273579	1,456035168	1,430258934	1,5902968
<i>Rpl22</i>	0,518115849	1,130867035	1,435997096	1,433155094	1,745492115
<i>Capza1</i>	0,455673401	1,203569898	1,453961189	1,453772883	1,721258818
<i>Atp8b2</i>	0,641874643	1,197274157	1,561920004	1,493966746	1,902999313
<i>1810008A18Rik</i>	0,63216647	1,190481057	1,597946956	1,487166501	1,836824891
<i>Il10rb</i>	0,691314263	1,171901885	1,570195526	1,441844015	1,856674114
<i>2810407C02Rik</i>	0,68512843	1,157944832	1,607564978	1,535042134	1,799237135
<i>Tdg</i>	0,640070489	1,277857206	1,54874781	1,49657423	1,744625016
<i>Gm9855</i>	0,64252409	1,298945552	1,550031865	1,512649212	1,753009677
<i>Itfg3</i>	0,616404202	1,270871364	1,626116641	1,533405266	1,746350632
<i>Ube2g2</i>	0,660379848	1,237687325	1,539384281	1,589217674	1,776469555
<i>Atp5l</i>	0,500190935	1,256902804	1,705786597	1,519853282	1,876556938
<i>Plcl2</i>	0,478226977	1,200277329	1,612650328	1,554983027	1,867101107
<i>Cct5</i>	0,526871243	1,261770458	1,648659063	1,514853369	1,82064409
<i>Dnajc5</i>	0,548927017	1,274004417	1,644181255	1,569852308	1,793761414
<i>Cib1</i>	0,596342054	1,065682539	1,598499482	1,448852762	1,896923474
<i>Zfp386</i>	0,562644644	1,110245453	1,494117125	1,388717303	1,926974749
<i>Slmo2</i>	0,584561513	1,152904032	1,695804687	1,302850941	2,047051179
<i>6720483E21Rik</i>	0,591206109	0,933525848	1,6558977	1,46901605	1,83483332
<i>AW011738</i>	0,543009241	1,056508173	1,691571347	1,519847503	1,97475301
<i>Polr2e</i>	0,46018857	0,98130319	1,584788353	1,317841686	2,094206116
<i>Nod1</i>	0,425404713	0,866223131	1,506204679	1,322844104	2,014386459
<i>Klhdc3</i>	1,03486124	1,143288452	1,426615168	1,291403813	1,984324858
<i>2510039O18Rik</i>	1,019007547	1,067727374	1,467391087	1,27992118	1,849207564
<i>Cbx8</i>	0,916636164	1,122241344	1,548756313	1,001706052	1,905596305
<i>Slc12a7</i>	0,762992871	1,056934068	1,424493509	1,311286529	1,90625885
<i>Gmppb</i>	0,706896463	1,127870396	1,460237447	1,180654166	1,907471541
<i>Adam1a</i>	0,704968448	1,186041751	1,332586602	1,059239534	1,937357228

<i>Tacc1</i>	0,863180205	1,165556315	1,512620654	1,202093149	1,689415663
<i>Ring1</i>	0,801417521	1,192085608	1,488048302	1,177842552	1,606634977
<i>Ndufs8</i>	0,852073112	1,137363985	1,43883151	1,275232728	1,634771221
<i>Zfp598</i>	0,736791937	1,151984373	1,434136793	1,198484345	1,700485555
<i>Mpnd</i>	0,960852356	1,144167317	1,348740337	1,196951195	1,689841652
<i>Oas3</i>	0,960789191	1,173469252	1,434918894	1,266082633	1,732245781
<i>Nmb</i>	0,92667401	1,109421368	1,349295871	1,310941124	1,706792225
<i>Lphn1</i>	0,86110695	1,080184284	1,439705943	1,130290923	1,590483686
<i>Adrm1</i>	0,829389389	1,111605185	1,412825702	1,138463254	1,690127059
<i>Pltp</i>	0,899714583	1,032240306	1,358309465	1,117105689	1,742643156
<i>Fiz1</i>	0,960897444	1,03706509	1,411382804	1,138171707	1,746080701
<i>2510049J12Rik</i>	0,991884956	1,065160569	1,556597886	1,133832023	1,72566189
<i>Tmem186</i>	0,701071896	0,870187617	1,40823358	1,195637603	1,814115746
<i>Rpl38</i>	0,797042193	0,860075686	1,542680341	1,138946982	1,718020444
<i>Zfp62</i>	0,75289827	1,279503783	1,540337238	1,239448699	1,592803875
<i>Ppp5c</i>	0,812677407	1,291938916	1,617379961	1,334387154	1,568372438
<i>N4bp2l1</i>	0,80313455	1,122801538	1,534285527	1,262802897	1,553256173
<i>Slc25a3</i>	0,67846437	1,131867733	1,688389047	1,300466064	1,793731198
<i>Sdccag3</i>	0,699325579	1,125545292	1,688126767	1,321035486	1,636274855
<i>Slc25a30</i>	0,82089354	1,23308488	1,578863657	1,383231728	1,929579173
<i>Pgm1</i>	0,834527816	1,347646764	1,605523238	1,385732521	1,847883655
<i>Evl</i>	0,897666431	1,269062448	1,532720268	1,454579808	1,787790953
<i>Mta2</i>	0,856703917	1,221263773	1,512867502	1,426409035	1,830270025
<i>1810013D10Rik</i>	0,818795237	1,31877158	1,626656782	1,426691732	1,716545215
<i>Stau1</i>	0,761985454	1,330209413	1,620961856	1,452388911	1,743916917
<i>Sart1</i>	0,775705152	1,232640985	1,599036272	1,400505965	1,781678137
<i>Srsf1</i>	0,87644394	1,172495854	1,508253996	1,276416353	1,866036965
<i>Hip1r</i>	0,867967251	1,268717527	1,589781957	1,275176239	1,8074673
<i>Khsrp</i>	0,774938984	1,124151387	1,538326154	1,259054464	1,789477562
<i>Al854703</i>	0,689764659	1,046180999	1,753049565	1,062261992	1,492545596
<i>Tspan9</i>	0,505760231	0,871268059	1,684816558	1,139688946	1,713907414
<i>Eng</i>	0,600224325	0,805259942	1,501757101	0,825740164	1,836308451
<i>Fbll1</i>	0,607090787	0,929918178	1,631274979	0,763313926	1,768073612
<i>Eif1</i>	0,582776044	1,000748581	1,522343137	0,980610565	2,005039181
<i>1700016G22Rik</i>	0,564751868	1,013795687	1,540990287	0,957707507	1,920537548
<i>B3gnt3</i>	0,751787243	1,318422917	1,419037877	1,546236337	1,807643086
<i>Nat15</i>	0,655008084	1,379027122	1,425844166	1,575877313	1,761550321
<i>Kin</i>	0,647762214	1,322636516	1,397929397	1,436469386	1,788759941
<i>Rps24</i>	0,597680865	1,184834765	1,347466971	1,494642264	1,815288203
<i>Tbrg4</i>	0,710727321	1,176039972	1,44297045	1,465622903	1,784617664
<i>Irak2</i>	0,920031545	1,287876521	1,284285571	1,539221747	1,756611515
<i>Cyb561d2</i>	0,942733171	1,32510468	1,386604016	1,540745633	1,815077074
<i>Ndufa6</i>	0,871065195	1,317002134	1,253366202	1,432165361	1,784570238
<i>Gm16675</i>	0,855593925	1,408460031	1,323688866	1,573840455	1,679577374
<i>Ikbkb</i>	0,762952429	1,044657992	1,305354815	1,493431616	1,745446407
<i>Stip1</i>	0,791184931	1,138711356	1,331116916	1,545987748	1,628176378
<i>Pole2</i>	0,69579716	1,041248977	1,157574666	1,553126477	1,631367053
<i>Fndc5</i>	0,634384613	1,137143741	1,371849476	1,661396134	1,691184284
<i>Gm19589</i>	0,840890676	1,163557937	1,314741146	1,360565892	1,89768494
<i>Ckap4</i>	0,874514369	1,112400174	1,324969702	1,437479557	1,80652003
<i>Mfng</i>	0,793381343	1,192839729	1,302865944	1,51623727	1,848945578

<i>Ilk</i>	0,85048145	1,234230425	1,246426471	1,539852046	2,008157934
<i>Myd88</i>	0,788273138	1,065265653	1,077749205	1,470436766	1,884257043
<i>Gltscr1</i>	0,725304269	1,097644214	1,313755	1,470149007	1,977207579
<i>B3gat3</i>	0,766481077	1,070911733	1,495787057	1,48272554	1,984019507
<i>Tceb2</i>	0,675242006	1,245451337	1,441879854	1,510258955	1,933371201
<i>Polg2</i>	0,68696089	1,269860031	1,405139056	1,389248644	1,924030083
<i>Slc30a1</i>	0,811252874	1,300474696	1,392691451	1,467907216	1,996924654
<i>Klhdc1</i>	0,644019157	0,99350036	1,279584389	1,643775251	1,872540973
<i>Rps6</i>	0,54457486	1,103628084	1,38700689	1,518776985	1,958060162
<i>Rpl31</i>	0,482896253	0,994902871	1,135651008	1,589909863	1,967383374
<i>Palm3</i>	0,640848569	1,055793966	1,320000204	1,478644083	2,173327066
<i>Rhoc</i>	0,66694951	1,115461021	1,208315521	1,683905925	2,076246515
<i>Dtx3l</i>	0,4391903	1,286229534	1,328561713	1,556412598	1,805221705
<i>Tmem173</i>	0,346484479	1,277021753	1,24126167	1,528505114	1,855453374
<i>Myo1g</i>	0,425557925	1,187448651	1,380701611	1,713609093	1,927128205
<i>Rpl19</i>	0,339808054	0,983054523	1,310979306	2,021605075	1,808176634
<i>Ppm1j</i>	0,531074542	1,199340395	1,158702412	1,971537547	1,786830157
<i>Tmem141</i>	0,549980073	1,036297671	1,386955339	1,957596144	1,971928947
<i>1110038D17Rik</i>	0,636575533	1,088538836	1,510473733	2,006936533	2,056192322
<i>Fam101b</i>	0,809169904	1,057576772	1,292096035	1,924543839	2,082539013
<i>D630010B17Rik</i>	0,573249716	0,994643724	1,300477836	1,784601831	1,526773338
<i>Ppp1r27</i>	0,688902003	0,842200409	1,466422276	1,847633022	1,54714347
<i>Tor1a</i>	0,840207492	1,282763185	1,744487038	1,531482577	1,582640732
<i>Prss43</i>	0,783743194	1,187424473	1,78213392	1,57581077	1,663269069
<i>Cdkn2aip</i>	0,56606786	1,365102732	1,641852582	1,550662544	1,423662695
<i>Ppp1r3f</i>	0,751388579	1,485452319	1,719679207	1,488031139	1,588537718
<i>Ndufa4</i>	0,796275713	1,39883445	1,737410312	1,511277828	1,544328704
<i>Srsf4</i>	0,779885355	1,396725499	1,905469533	1,426509245	1,71209836
<i>Polr2m</i>	0,685427479	1,485017034	1,67857312	1,352811557	1,703352448
<i>Chmp2a</i>	0,750264707	1,442486743	1,666978003	1,379920141	1,647423743
<i>Slc16a6</i>	0,767031153	1,36899788	1,741615787	1,330480331	1,713701484
<i>Smap2</i>	0,717786165	1,34310587	1,716740282	1,317131866	1,726782136
<i>Eif3g</i>	0,457450351	1,182177685	1,680945108	1,12334512	1,917207265
<i>Cd226</i>	0,471103641	1,239122477	1,833053641	1,142933194	1,753289027
<i>Il2rb</i>	0,624736409	1,407672602	1,74973044	1,085097543	1,889007103
<i>Txn2</i>	0,678356661	1,380602584	1,575268142	1,375591599	1,86773244
<i>Smcr8</i>	0,629270269	1,373346096	1,535508721	1,268033291	1,947983452
<i>Csnk2b</i>	0,531138578	1,567906881	1,639551891	1,25231982	1,802510139
<i>Atp5c1</i>	0,620982969	1,485579646	1,743817474	1,524451639	1,873989455
<i>Dnaja1</i>	0,623533163	1,525035954	1,787044658	1,431679744	1,876990664
<i>Tab2</i>	0,723834864	1,537141641	1,661200644	1,459690238	1,84116581
<i>Luc7l3</i>	0,667169677	1,561921772	1,753324532	1,633124213	1,823928096
<i>Psd4</i>	0,753589121	1,558911651	1,732060742	1,653362209	1,795572361
<i>Mll1</i>	0,751888567	1,574608347	1,666284416	1,595524512	1,844361406
<i>Rictor</i>	0,748077178	1,595837046	1,70541503	1,609986142	1,904079373
<i>Foxn2</i>	0,752315972	1,487823657	1,698007699	1,653601703	1,913891664
<i>Cox7a2l</i>	0,745287271	1,49810234	1,732158434	1,630253421	1,927471777
<i>Myst3</i>	0,661233373	1,545313037	1,733833989	1,706009414	2,016489286
<i>Atxn2l</i>	0,669026965	1,541686128	1,783507473	1,643420487	2,061081618
<i>Dcaf7</i>	0,666104515	1,530207076	1,83461774	1,63730823	1,945142432
<i>Pak2</i>	0,56202835	1,622031471	1,762552874	1,593087404	2,019801938

<i>Cblb</i>	0,540886345	1,524598563	1,595399525	1,702676181	1,915132753
<i>Cggbp1</i>	0,501277531	1,644192154	1,575007885	1,555801245	1,999746039
<i>Icos</i>	0,606324241	1,647665305	1,583404779	1,517427535	1,801777797
<i>Zfp865</i>	0,654675832	1,739956776	1,581485074	1,56929833	1,905299577
<i>1700113A16Rik</i>	0,761398765	1,502390018	1,433168882	1,587958182	1,920166323
<i>Slc37a3</i>	0,71346648	1,588431793	1,457672444	1,568252769	1,829720391
<i>1700101111Rik</i>	0,809668729	1,608669646	1,530342574	1,587480744	2,001697593
<i>Dnase2a</i>	0,742977597	1,556760328	1,449203751	1,361025176	1,965071554
<i>Zfp628</i>	0,791283228	1,563444786	1,538541932	1,391374833	1,907164688
<i>Sept11</i>	0,578736382	1,412940993	1,625119604	1,440274903	1,792726171
<i>Tbk1</i>	0,558872239	1,392384099	1,653742995	1,447540164	1,692232237
<i>Zbtb4</i>	0,632970487	1,431011909	1,614498043	1,488958619	1,732502803
<i>Pum1</i>	0,643743265	1,414299859	1,624664915	1,473147454	1,708072009
<i>Isca1</i>	0,58652103	1,499152007	1,649962603	1,467854519	1,70274042
<i>Cpne1</i>	0,588707128	1,426762302	1,691269407	1,606426854	1,67050085
<i>Tcf20</i>	0,574700536	1,41121897	1,640429756	1,55284559	1,656992687
<i>Lemd3</i>	0,678230858	1,352828205	1,584848491	1,575777109	1,811155174
<i>Prdm2</i>	0,681561376	1,386907466	1,635555356	1,565051536	1,78718361
<i>Minos1</i>	0,709731851	1,33550141	1,572108491	1,51241599	1,746824174
<i>Gbp4</i>	0,715503984	1,402578629	1,687393286	1,495714694	1,761332164
<i>Hnrnpc</i>	0,58008856	1,510830142	1,727159183	1,538068109	1,697913484
<i>Slc15a1</i>	0,589414787	1,510124791	1,76397455	1,516014636	1,649786021
<i>Ms4a6d</i>	0,647430348	1,555053073	1,818710092	1,589155902	1,755919783
<i>Arglu1</i>	0,450259455	1,524249545	1,737952356	1,59679892	1,748515019
<i>Lsm14a</i>	0,459701698	1,544084249	1,711849305	1,549785796	1,736128375
<i>Ndfip1</i>	0,497987465	1,593033543	1,652885075	1,611827492	1,76825121
<i>Srp9</i>	0,44684546	1,379295379	1,813994344	1,455749921	1,802688485
<i>Snrk</i>	0,417707087	1,435658684	1,876897586	1,480635136	1,900284576
<i>Mdm2</i>	0,50885139	1,442459946	1,671206256	1,511886905	1,807565164
<i>Cct2</i>	0,518049255	1,38485181	1,688265097	1,568719255	1,908267705
<i>Fam134c</i>	0,366473798	1,517491207	1,699239546	1,569859576	1,838851187
<i>N4bp2l2</i>	0,291821276	1,45673672	1,647389395	1,509413604	1,88094021
<i>Sf3b1</i>	0,363300376	1,429795873	1,673791235	1,637458134	1,724483945
<i>Abhd14b</i>	0,367281362	1,641491021	1,372065514	1,602449383	1,793050191
<i>Tmem126a</i>	0,511357612	1,589331769	1,272063518	1,548214772	1,736085182
<i>C78339</i>	0,4691355	1,449942657	1,456399448	1,441138419	1,827716468
<i>Mettl9</i>	0,46457112	1,430476445	1,474679245	1,65143832	1,852954161
<i>Tshz1</i>	0,490141273	1,470282695	1,482198252	1,814265603	1,783005806
<i>Sdf4</i>	0,460321667	1,663299366	1,546942589	1,681161718	1,760528558
<i>Hk3</i>	0,488567331	1,615833655	1,536482342	1,633671175	1,772151353
<i>Zfp524</i>	1,050450227	1,856272211	1,548244022	1,391248427	2,67284221
<i>Eid2</i>	0,773465336	1,678828052	1,259171357	1,037664037	2,833093097
<i>Alkbh4</i>	0,673664473	0,975321674	1,612291731	1,934454209	3,073778357
<i>Gm12504</i>	0,682161151	1,00511434	1,637117126	1,208049769	2,528891824
<i>Scx</i>	0,823201799	1,253994091	1,656070264	1,078359053	2,534438497
<i>Kremen2</i>	1,003928887	1,000909943	1,5382938	1,278351788	2,325258369
<i>S100a10</i>	0,464734058	1,102015024	1,521442758	1,113880403	2,087876638
<i>F2r</i>	0,483381182	1,340245299	1,534622675	1,173135492	2,093799216
<i>Arhgdig</i>	0,534495964	1,225295109	1,647810148	0,966510836	2,37486696
<i>Gpr68</i>	0,559279729	1,146522093	1,972702294	1,093178755	2,848773328
<i>Snhg10</i>	0,833690995	0,792806505	1,976040154	0,919441703	2,275968414

<i>Itgae</i>	0,629594086	0,870035342	1,895688302	0,938453591	2,069222941
<i>Cxcl10</i>	0,592287799	1,090569517	1,987905927	0,780943731	2,325192261
<i>Ccdc102a</i>	0,751498532	1,147395957	2,183837394	1,248311746	2,39258669
<i>Lsp1</i>	0,894723079	1,14445099	2,100192266	1,337160008	2,243775231
<i>5730508B09Rik</i>	0,969309848	1,249737382	1,960779677	1,091866225	2,334770865
<i>Haa0</i>	0,776325594	0,863223047	1,765314099	1,030946366	2,04167133
<i>Bend4</i>	0,935718538	0,921364768	1,707944059	1,063057774	1,994534542
<i>Rpl28</i>	1,05835572	0,704242637	1,857853037	1,180204083	2,268664661
<i>Gpr114</i>	0,267776013	0,565318288	2,165934798	0,662607427	2,498109734
<i>Cxcr6</i>	0,183212932	0,754126182	1,46896772	0,755595097	2,347095272
<i>D930028M14Rik</i>	0,615652464	1,649842299	2,31271627	2,213518164	2,657175405
<i>B230219D22Rik</i>	0,636943489	1,652081235	2,227683767	2,000402407	2,777089401
<i>Arid5a</i>	0,766240413	1,683877496	2,218193434	2,244228105	2,865720266
<i>BC037034</i>	0,89629439	1,596330868	2,314258529	2,190132715	2,782166927
<i>Fam158a</i>	0,779226781	1,77300002	1,9346335	2,241614633	2,802616453
<i>Glipr2</i>	0,819160255	1,433444691	2,301736275	2,033996657	2,498325545
<i>Fam113b</i>	0,640258487	1,479707133	2,094685049	2,174355712	2,535627328
<i>Fam65b</i>	0,888532799	1,552087158	2,018225371	2,153582198	2,558288013
<i>Rpl32</i>	0,934306971	1,518321379	2,031782482	2,048535101	2,388534289
<i>Srrm2</i>	0,91156877	1,827621293	2,052337197	1,989781668	2,42444106
<i>Tmem59</i>	0,954588244	1,741990944	2,05060598	1,91742288	2,3524424
<i>Spsb3</i>	0,960766767	1,760206129	1,921842167	1,965641157	2,409953246
<i>Agap2</i>	1,061486854	1,779956597	2,065912384	2,067419312	2,547903183
<i>Sp3</i>	0,788429349	1,701139725	2,088414801	2,068281188	2,306855122
<i>Rpl17</i>	0,77654462	1,682423031	2,157579667	2,044611673	2,381740746
<i>Trp53</i>	0,841385339	1,759567988	2,157605887	1,859881697	2,37528765
<i>Rps19</i>	0,895945204	1,737577703	1,990834166	2,161571196	2,403739971
<i>Add3</i>	0,822056169	1,693483053	1,913538262	2,161104009	2,316144714
<i>Ldha</i>	0,845568127	1,814663572	1,904145588	2,26571089	2,255229589
<i>Avpr2</i>	0,761234466	1,762850558	2,006734573	2,190095966	2,506635912
<i>Ccnd2</i>	0,34986514	1,78258168	2,088259239	2,190723725	2,480095409
<i>4921508A21Rik</i>	0,108224474	1,652796641	2,146874198	2,317639182	2,575683767
<i>Hus1b</i>	0,648583903	1,538252328	2,0427677	2,594887378	2,714839845
<i>Rasa3</i>	0,706875199	1,707081745	2,193603296	2,492055368	2,866210214
<i>Enpp7</i>	0,471707205	2,193885397	2,106450104	1,695257381	2,304106977
<i>Egr3</i>	0,08131398	2,051463722	2,164824229	1,792784741	2,695525912
<i>Npff</i>	0,27476667	1,788906606	2,42150958	1,401328234	2,347781483
<i>Vat1</i>	0,814398613	1,388410008	1,428782646	1,733217867	2,171898163
<i>Gcc1</i>	0,599476241	1,388992585	1,397149291	1,528667195	2,123765567
<i>1700061G19Rik</i>	0,717855722	1,230196923	1,573551273	1,753806077	2,215374902
<i>Kcnab2</i>	0,672590909	1,189337933	1,523986767	1,831959526	2,04855031
<i>Cdc42</i>	0,621281896	1,24939763	1,665642515	1,722493709	2,055569617
<i>Irgm1</i>	0,66595623	1,363402424	1,657318078	1,731235885	2,074690706
<i>Slc35b3</i>	0,505155549	1,412652957	1,547885897	1,729600205	2,081158335
<i>Rpl4</i>	0,332197476	1,395559255	1,497841868	1,814400339	2,113467167
<i>Slc30a7</i>	0,467137386	1,495987312	1,470198584	1,89053146	2,015733098
<i>Rpl37</i>	0,340747567	1,292109252	1,578863402	1,959576543	2,038822675
<i>Dapl1</i>	0,320966365	1,370499604	1,652239806	1,87058842	2,295834132
<i>Ms4a4b</i>	0,433403271	1,460439538	1,769873919	1,860468446	2,18776772
<i>1700017B05Rik</i>	0,685360965	1,273863569	2,006588352	1,428590656	2,328791239
<i>Oplah</i>	0,610160299	1,2838465	1,96815439	1,613106616	2,200392859

<i>S100a4</i>	0,625275563	1,042407377	1,814669663	1,412825027	2,358676119
<i>Gnb2l1</i>	0,602059575	1,456021092	1,690239673	1,491992287	2,020951028
<i>Cant1</i>	0,643424443	1,406777478	1,698479964	1,456080223	2,02981781
<i>Exosc3</i>	0,607411542	1,439802628	1,818070507	1,413929066	2,030906528
<i>Trim12a</i>	0,654022554	1,338539699	1,778277013	1,703670504	1,967408156
<i>Brd4</i>	0,625847431	1,409676189	1,802006485	1,626666988	1,997374462
<i>G3bp1</i>	0,712598293	1,375776845	1,853654077	1,703058425	2,019950543
<i>H2-K1</i>	0,636952369	1,240966969	1,711355374	1,602641178	2,205924046
<i>Set</i>	0,687593201	1,296404641	1,606616623	1,504369719	2,173675955
<i>Apol7e</i>	0,693791595	1,393835142	1,733081159	1,669964642	2,262113324
<i>A930005H10Rik</i>	0,012125995	1,264535545	1,632492407	1,881645019	2,373315858
<i>Card6</i>	-0,018831207	1,253059459	1,612195652	1,844259722	2,175207572
<i>H2-D1</i>	0,135888918	1,273334411	1,949822806	2,067794938	2,41544212
<i>Sgk1</i>	0,465975954	1,139822328	1,499594359	1,957891015	2,49936751
<i>F2rl1</i>	0,140288731	1,282283101	1,467516873	1,914159545	2,525589933
<i>H2-Q7</i>	0,281830465	1,256888803	1,654912094	1,651256833	2,750473517
<i>H2-Q9</i>	0,264686174	1,264821961	1,654924344	1,662171636	2,748344235
<i>Sepw1</i>	0,676152405	1,569810143	2,170745866	1,710029098	2,264503551
<i>Ankrd10</i>	0,661520239	1,563702729	2,059003737	1,624717814	2,128406074
<i>Rarg</i>	0,814443675	1,434248301	2,104376339	1,591403105	2,276670944
<i>Lime1</i>	0,686260952	1,427391353	2,326079884	1,797692736	2,172031311
<i>Mfsd5</i>	0,597260492	1,419677491	2,20109879	1,696644683	2,532584271
<i>Ostf1</i>	0,581059975	1,374374874	2,001527569	1,743313438	2,495869745
<i>U2af2</i>	0,503804038	1,516713436	1,921530477	1,746417606	2,109815444
<i>Serbp1</i>	0,35721369	1,470282448	1,898063712	1,799599128	2,055457612
<i>Cnbp</i>	0,419330146	1,533793169	2,083375279	1,758285199	2,128662772
<i>Cx3cr1</i>	0,299613385	1,62537686	2,075747446	1,631297677	1,99642327
<i>Srsf10</i>	0,347290092	1,397767989	1,782661377	1,590384119	2,072984605
<i>Agfg1</i>	0,273444863	1,36497363	1,854597867	1,718057698	2,122019471
<i>Rps15a</i>	0,399050048	1,363231746	1,953782823	1,440897431	2,134703972
<i>Paqr7</i>	0,752835823	1,487206057	1,963569135	1,879008981	2,257070667
<i>D8Ertd82e</i>	0,618575606	1,581896725	1,884143737	1,894437069	2,384638159
<i>Rpl21</i>	0,841789855	1,507241475	1,92270776	1,964311914	2,427745222
<i>Rnf31</i>	0,782424964	1,608308303	1,979187706	1,95836513	2,444401452
<i>Nol7</i>	0,757703901	1,562134503	1,668116939	1,854398212	2,422967248
<i>Prf1</i>	0,684065363	1,545011159	1,672066738	1,923859778	2,336832784
<i>Capzb</i>	0,789890298	1,458643317	1,796305194	1,794554286	2,192403475
<i>Fbl</i>	0,799938435	1,387812058	1,758811998	1,921229991	2,13987809
<i>Slc17a9</i>	0,755078824	1,335511609	1,887336284	1,901387284	2,236232531
<i>Eif5a</i>	0,674301087	1,297454494	1,913917139	1,779486979	2,218920515
<i>Tgtp2</i>	0,398874865	1,411181338	1,746960314	1,962218715	2,498803114
<i>Tgtp1</i>	0,398874326	1,410435942	1,753711206	1,973766483	2,498804683
<i>Cisd3</i>	0,502275768	1,497253588	1,897885952	1,904311148	2,595064482
<i>Irf2</i>	0,733608957	1,646595362	1,955991754	2,043770013	2,240511195
<i>Smurf1</i>	0,550840039	1,731953023	1,922239438	2,084488789	2,194726976
<i>Rps3</i>	0,55685457	1,707087644	1,835277346	2,002064571	2,410535584
<i>4930420K17Rik</i>	0,479376165	1,784379027	1,867597141	2,070057304	2,368728706
<i>Rnf149</i>	0,522975469	1,865814692	1,922447919	1,822782355	2,12597267
<i>Actr3</i>	0,424267687	1,819081746	1,957765383	1,859226083	2,108088766
<i>Anxa6</i>	0,580077935	1,724519881	1,85582197	1,872993743	2,090313365
<i>Mapk1ip1l</i>	0,582164773	1,788850765	1,856958148	1,962126432	2,098136631

<i>Son</i>	0,631326651	1,810920044	1,910225052	1,90051523	2,285551388
<i>Tomm20</i>	0,610181128	1,779256024	2,046637167	1,756487578	2,227943955
<i>Cox10</i>	0,511733036	2,010249814	1,795474747	2,241657794	2,193113296
<i>Gm11517</i>	0,415171792	1,898932003	1,734341841	2,257168933	1,879615926
<i>Tes</i>	0,162167034	1,895968559	1,744634681	1,940425635	1,851318372
<i>Il7r</i>	0,133934755	1,841960578	1,436475171	2,092248379	1,859778588
<i>I830012O16Rik</i>	0,372727482	1,927602725	1,277082817	1,723078463	2,209038056
<i>Ddx19a</i>	0,568693944	2,387397947	1,679862985	2,061145213	1,570780454
<i>Xylt2</i>	0,632048878	2,248565282	1,781525012	2,184845457	1,783189723
<i>Gm13546</i>	0,461510629	2,140744524	1,445428391	2,094057064	1,514779109
<i>Adat1</i>	0,716420961	2,170390948	1,832252563	1,829785499	1,595211597
<i>Adipoq</i>	0,757552512	2,180318017	1,74756877	1,764715805	1,589568964
<i>Zfp146</i>	0,236830661	1,772508235	2,039651018	1,957571281	2,268204636
<i>Ifi271l</i>	0,081820254	1,774321405	1,934021914	1,927380278	2,072143173
<i>Eif4a1</i>	0,392600757	1,64509151	1,905399442	1,904735877	2,201117269
<i>Chd7</i>	0,39887201	1,648419703	1,864822036	2,048761566	2,147217102
<i>Sesn3</i>	0,301274733	1,71610242	1,867744247	1,905938166	2,086818623
<i>1810013L24Rik</i>	0,610389867	1,726527514	1,957062181	1,919381099	1,989959705
<i>Rbm12</i>	0,623119307	1,726302364	2,018955334	1,954757158	1,981475457
<i>Ppp1cb</i>	0,442295123	1,860561409	1,986541249	1,932978376	1,968333612
<i>Rgs19</i>	0,606843947	1,844817006	2,165307119	1,913420686	2,073315897
<i>Ppp4r2</i>	0,553246488	1,875629729	1,995840716	1,670577883	1,940996251
<i>Rap1a</i>	0,582527003	1,896043504	1,930829053	1,82300554	1,969245647
<i>Ptgfrn</i>	0,606394649	1,778884163	1,791630676	1,949668122	1,838881499
<i>Dennd2d</i>	0,650202558	1,759352935	1,744707619	1,821947529	1,860684148
<i>Stat6</i>	0,540919685	1,734551077	1,805305535	1,874246291	1,936906916
<i>Pacsin1</i>	0,592226245	1,743669574	1,728232941	1,853954269	1,983041719
<i>Rabif</i>	0,519733079	1,629891523	1,605945363	1,757001925	1,86052947
<i>Fam75d3</i>	0,532622421	1,607391572	1,633642222	1,817410016	1,846151877
<i>Dusp11</i>	0,496181303	1,622414682	1,642388363	1,899433668	1,81927113
<i>Gpr83</i>	0,483213414	1,673538267	1,638647271	1,972206656	1,632371987
<i>Spag7</i>	0,536868285	1,721232776	1,821958294	2,058255948	1,716774848
<i>Rps13</i>	0,231366405	1,544207647	1,743354669	1,80352435	1,847900575
<i>Ms4a6b</i>	0,395558356	1,526139452	1,922164424	1,94616413	1,854966665
<i>Hnrnpa2b1</i>	0,474806793	1,367809383	1,809739963	1,815404066	1,844299818
<i>Rpl6</i>	0,415355737	1,350391017	1,647388168	1,869754186	1,854574134
<i>Fam26f</i>	0,564927067	1,411909841	2,157520265	2,114791955	2,227824636
<i>Rg9mtd1</i>	0,49330011	1,613873175	2,108270374	2,031244563	2,330752698
<i>Trem12</i>	0,436309826	1,678010612	2,126828386	2,294011991	2,159524826
<i>B130006D01Rik</i>	0,767029144	1,644621798	2,226049778	2,200516778	1,95372265
<i>Fryl</i>	1,13821008	1,629041988	1,769140209	1,674538321	2,016516364
<i>Mgat4b</i>	1,118776394	1,661962285	1,723081881	1,680417421	1,949882585
<i>Tecr</i>	1,102867317	1,547292586	1,742707585	1,666733391	2,017690197
<i>Usp18</i>	1,120569494	1,530475693	1,695196017	1,64549486	1,969607133
<i>Msl1</i>	1,061169667	1,528789899	1,829016191	1,796540292	1,975138703
<i>Uso1</i>	1,026449456	1,599372639	1,778751173	1,766709307	1,911715079
<i>Akap13</i>	1,087720561	1,590637326	1,744098382	1,759266574	2,008478187
<i>Atp1a1</i>	1,089610545	1,574633627	1,766770685	1,814915795	1,985199338
<i>Erp29</i>	0,992565191	1,439446622	1,697305002	1,690522295	1,970651984
<i>Mll2</i>	1,021010247	1,478865122	1,754424348	1,658319225	2,063603428
<i>Ncdn</i>	1,083949942	1,431012882	1,613204303	1,663628263	1,989050006

<i>Rsb1</i>	1,073164278	1,464061861	1,674762111	1,644426229	1,911821036
<i>Rer1</i>	0,998391928	1,466031947	1,549811731	1,695082396	2,041933028
<i>Pitpnc1</i>	0,884412971	1,507729491	1,622816878	1,755433969	1,960792528
<i>ORF61</i>	0,971107449	1,53911946	1,668194086	1,782513199	2,062628679
<i>Zfp871</i>	1,006274668	1,508721504	1,620708756	1,720888732	2,08935308
<i>Pdcd4</i>	0,931381167	1,457537156	1,675874478	1,812726071	2,103971166
<i>Smc4</i>	1,185572706	1,568910489	1,801405441	1,638254616	2,054344839
<i>Kctd20</i>	1,132687021	1,468572269	1,84629907	1,655355676	2,039525128
<i>1700023F06Rik</i>	1,153899982	1,550325008	1,878638472	1,709808789	2,108863459
<i>Cdc42se2</i>	1,121629762	1,59296042	1,858594445	1,689491081	2,080170847
<i>Ccdc71</i>	1,091580224	1,567952042	1,834160866	1,579940393	2,110028854
<i>Lrrc8c</i>	1,088518718	1,456767745	1,802589484	1,754689317	2,110254481
<i>Fuz</i>	1,11343905	1,410759716	1,769058253	1,741104923	2,058652036
<i>Pex10</i>	1,142883067	1,55107869	1,72796055	1,698355507	2,125927111
<i>Btbd2</i>	1,154531611	1,665879715	1,729516646	1,74144978	2,116557966
<i>Ric8</i>	1,235559135	1,567249137	1,657920062	1,58043391	2,078205346
<i>Fnbp1</i>	1,066860429	1,540029626	1,786187428	1,603140288	1,981201012
<i>Limd1</i>	1,032429817	1,495115316	1,817895653	1,553071211	2,053223087
<i>Fosl1</i>	0,994221857	1,544132541	1,868906694	1,517704564	1,96759943
<i>2410004B18Rik</i>	0,906838934	1,557924087	1,806951846	1,621484273	2,062032938
<i>Hdac1</i>	0,936412846	1,52581596	1,811323922	1,564663632	2,042688171
<i>Atp6v0c</i>	1,014890576	1,640695089	1,839093451	1,556392635	2,050580984
<i>Atp6v0c-ps2</i>	1,014900018	1,653204705	1,846057607	1,556410194	2,043063449
<i>Pten</i>	1,064156078	1,631797048	1,863404809	1,667685907	2,008073788
<i>3110003A17Rik</i>	0,970640438	1,703557007	1,932659866	1,642453262	2,039314105
<i>1600014C10Rik</i>	0,966382202	1,686404436	1,675541643	1,707100435	2,097998383
<i>1700001P01Rik</i>	0,810147478	1,659605849	1,735633494	1,627622493	2,115935359
<i>2810013P06Rik</i>	1,029983048	1,457847345	1,783233507	1,920876696	1,853736907
<i>Cd74</i>	1,039420669	1,569662066	1,81093586	1,921059312	1,752495514
<i>Mettl21d</i>	0,868870338	1,457938638	1,735126104	1,836249805	1,777816454
<i>Rap2b</i>	0,923010906	1,523787897	1,652123459	1,875927043	1,74828456
<i>Capg</i>	0,911278597	1,485030305	1,765404074	1,655553242	1,933411138
<i>D11Wsu99e</i>	0,917091171	1,488769753	1,745245735	1,666220572	1,862163819
<i>Mrps23</i>	0,895510571	1,383001772	1,818702798	1,771692479	1,910102189
<i>Ndufb7</i>	0,940173547	1,529377028	1,816959678	1,782912398	2,04140069
<i>Ewsr1</i>	0,94192462	1,592083879	1,897589245	1,774394563	1,902496147
<i>Aebp2</i>	1,058535672	1,472649215	1,683617207	1,829213661	1,83143192
<i>Letmd1</i>	1,045004476	1,422318512	1,562134162	1,82647516	1,848539451
<i>Acvr1b</i>	1,069580758	1,577012419	1,64415858	1,795210248	1,905394077
<i>Gps2</i>	1,0748606	1,527324693	1,587076827	1,812406758	1,972117422
<i>Atg4d</i>	1,061675411	1,544810106	1,678295896	1,760996044	1,993469293
<i>Tpt1</i>	1,161395366	1,57937022	1,656287255	1,667529742	1,838431538
<i>Cecr5</i>	1,147312885	1,537174723	1,641771179	1,60377831	1,803678159
<i>Pdlim1</i>	1,010824458	1,507607223	1,534055362	1,629884535	1,834594298
<i>Tbc1d22b</i>	1,06686439	1,496151426	1,590314678	1,637381745	1,843068452
<i>Lrrfip1</i>	1,114749076	1,659760024	1,726314608	1,639421294	1,826266977
<i>Tmem194b</i>	1,146764254	1,72031019	1,725363758	1,62545144	1,782463934
<i>Zfp362</i>	1,069006694	1,628271357	1,6656002	1,556790613	1,803823042
<i>4921525O09Rik</i>	0,993696628	1,773252218	1,743389373	1,574481709	1,885296043
<i>Lipe</i>	1,004566356	1,761492086	1,769283114	1,607909772	1,871088891
<i>Idh3b</i>	1,128416622	1,68285853	1,600065312	1,713257959	1,922851285

<i>Cog1</i>	1,117804326	1,669741055	1,653711534	1,560536661	1,94413902
<i>Gm16880</i>	1,127898299	1,715057257	1,769997125	1,498409611	1,854132726
<i>LOC100503496</i>	1,18810621	1,699166368	1,866732606	1,524312753	1,889346038
<i>Btd</i>	1,286305233	1,760478751	1,756646499	1,502040868	1,877789907
<i>Hp1bp3</i>	1,298014367	1,635285518	1,726399616	1,582942722	1,754245912
<i>H13</i>	1,230814524	1,650523682	1,723669401	1,545521144	1,789032405
<i>4930455C13Rik</i>	1,249408889	1,610209413	1,820230342	1,535230693	1,702551208
<i>5430405H02Rik</i>	0,950834333	1,730398049	1,795072621	1,628843247	1,751725735
<i>Rhot2</i>	0,876047923	1,730346578	1,829952739	1,626789684	1,760681719
<i>Baz2a</i>	0,921327065	1,732404476	1,806533384	1,591996833	1,629201664
<i>Crbn</i>	0,972181516	1,755576373	1,699840114	1,652474601	1,685472731
<i>Rin3</i>	1,059833401	1,803226104	1,706710585	1,604671416	1,740371635
<i>Chd1</i>	0,965713945	1,813090543	1,61352605	1,572500833	1,693749361
<i>Drap1</i>	0,917522432	1,47856447	2,068954634	1,896246216	1,732635377
<i>4930539J05Rik</i>	0,981912257	1,339854604	1,989500949	1,803126919	1,574611689
<i>Malat1</i>	1,146380664	1,591890145	2,131959258	1,718673594	1,671588894
<i>Sgms1</i>	1,226939873	1,784717136	1,575419697	1,931642324	1,696589904
<i>Zmynd8</i>	1,263036415	1,830170204	1,701254642	1,991930614	1,771989201
<i>Dyx1c1</i>	1,194202264	1,795783109	1,612388054	1,815609566	1,941599503
<i>Acy1</i>	1,180565162	1,847401293	1,630956896	1,893906798	1,870568729
<i>Tnrc6b</i>	1,218275936	1,630592219	1,762854386	1,684246301	1,822925392
<i>Rab11b</i>	1,180700523	1,685918794	1,755451247	1,758101082	1,843291542
<i>Slc36a3</i>	1,278961378	1,7326746	1,725578888	1,750225931	1,86814954
<i>Derl3</i>	1,192163213	1,779819964	1,648896254	1,686879187	1,80532101
<i>Gm2a</i>	1,157555563	1,602615532	1,616518097	1,782031113	1,775256644
<i>Nfatc2</i>	1,207331524	1,584007999	1,590957523	1,766740918	1,835557682
<i>Bak1</i>	1,236223743	1,66155783	1,534421274	1,819618983	1,821221331
<i>Stk16</i>	0,860112277	1,62527255	1,694148239	2,047384563	1,758415933
<i>Tor1aip2</i>	0,821343712	1,81480581	1,765674817	1,943887883	1,717541722
<i>Nckap5l</i>	1,077158431	1,793637343	1,617964725	1,918545832	1,77872734
<i>Ncoa3</i>	1,038669144	1,72324989	1,681275094	1,919394229	1,828223694
<i>3300005D01Rik</i>	0,916215627	1,772370671	1,669824422	1,909981459	1,826564799
<i>Cldn10</i>	1,054074002	1,706811692	1,740053454	1,767107238	1,795968853
<i>Ncoa2</i>	1,055747341	1,762091519	1,804613488	1,862183018	1,890574813
<i>Wdr73</i>	1,110591832	1,679165243	1,898966745	1,922087361	1,767613337
<i>Gm885</i>	1,181747874	1,675823471	1,725309744	1,94861472	1,86660695
<i>Tnfaip8</i>	1,14101109	1,80910494	1,891665465	1,799493293	1,951870567
<i>Tbc1d16</i>	1,107697084	1,786229167	1,871455525	1,7719399	1,898561405
<i>Ptger4</i>	1,204528217	1,843855043	1,883499258	1,834506454	1,870030245
<i>Ftl1</i>	1,224308698	1,617956636	2,077497121	1,999781101	1,931904845
<i>Plcg1</i>	1,07545719	1,729691046	1,835169772	1,827164061	2,045985265
<i>Ln timer</i>	1,121223523	1,762616633	1,776494619	1,762627553	2,042052077
<i>Cds2</i>	1,210189824	1,730008389	1,741450465	1,766697703	2,003821353
<i>Aim1l</i>	1,254630022	1,704224577	1,883152394	1,888686762	2,04613294
<i>Crlf3</i>	1,222765581	1,712735476	1,810152641	1,871595642	2,03403004
<i>Map3k14</i>	1,198170897	1,740781933	1,795973094	1,879654818	2,119311081
<i>Cep97</i>	1,181150807	1,60806716	1,764178647	1,895247429	2,019483852
<i>D430020J02Rik</i>	1,339128197	1,796220709	1,870031516	1,953745794	2,006448459
<i>Cabp4</i>	1,234476237	1,742021064	1,797661098	1,995978062	2,008631855
<i>4930523C07Rik</i>	1,161112386	1,881900096	1,903056074	1,96748021	1,949970357
<i>Lbp</i>	0,665414529	1,472002376	1,659415473	1,867192565	1,590149553

1500032L24Rik	0,536800211	1,553156801	1,686627306	1,800736619	1,56202208
Fibcd1	0,712302175	1,593399834	1,522887589	1,807543288	1,553364076
Suds3	0,787344064	1,625159523	1,596756646	1,644507345	1,70913509
Ptk2b	0,794981411	1,660335251	1,595660748	1,624390849	1,609022432
Sep15	0,639852547	1,714280849	1,644411137	1,66808573	1,670210864
Mink1	0,583401524	1,727419486	1,608231096	1,870318143	1,656873958
Sae1	0,521359522	1,715678613	1,542573211	1,780368669	1,739151059
Ccng1	0,644085744	1,579299585	1,472963273	1,924828907	1,664415397
Fam186b	0,640497795	1,625984931	1,508518399	1,932704606	1,778821603
Llph	0,880382549	1,53555469	1,433272997	1,868229037	1,763859033
Mrpl12	0,888501145	1,577930059	1,359046997	1,823682185	1,737292623
Chd3	0,793018045	1,674902252	1,338510782	1,954007049	1,663786039
Cbln3	0,839395044	1,353743626	1,437360981	1,848932583	1,656888168
Kifc1	0,785914998	1,423952246	1,458854107	1,879447227	1,65793539
Tmem234	0,761990997	1,360833087	1,409030773	1,925100108	1,740486107
Elf2	0,877944062	1,556407264	1,69526153	1,602996171	1,715542173
Slain1	0,919725025	1,535179599	1,653614092	1,595366897	1,679703951
Rab14	0,803816605	1,474645476	1,703356117	1,617483302	1,675851541
Snx3	0,806991314	1,587360985	1,751715996	1,663940592	1,698087743
Tor1aip1	0,746876827	1,603523002	1,715242682	1,673777287	1,673474652
Olfml3	0,875763615	1,494866635	1,652500379	1,699705997	1,767107862
Purb	0,811527182	1,535704996	1,711981289	1,761895278	1,780130177
St6galnac2	0,753664351	1,568133404	1,596189647	1,755988431	1,8021444
Kansl2	0,915237786	1,646323586	1,601403468	1,730513533	1,755739926
Hiat1	0,920385875	1,625867216	1,696745687	1,727828405	1,779703845
Mapkapk2	0,891475189	1,695906019	1,706796007	1,621367485	1,849892427
Rcor1	0,937435162	1,645591399	1,684055641	1,620736438	1,829392898
Chd2	0,908139019	1,62847906	1,700403279	1,662120334	1,892777044
Traf3	0,910232606	1,591837043	1,695987754	1,587776831	1,896847918
Cep68	0,873295891	1,631483695	1,667332109	1,566998504	1,899752128
Pan3	0,962873626	1,630399101	1,752345055	1,623658514	1,800470846
Pvt1	0,758947212	1,555275445	1,495531581	1,629561032	1,61418662
Psmc8	0,801736832	1,576441985	1,40784527	1,634288282	1,624258671
Ccdc97	0,882630479	1,556794722	1,423118594	1,551293432	1,693329166
Acin1	0,842592533	1,451314772	1,589476217	1,566418883	1,74279081
Ube2h	0,794225706	1,466335653	1,523585484	1,621967236	1,832935954
H2-Ke2	0,802472512	1,750693058	1,518674186	1,797296816	1,604665859
Me2	0,833688455	1,760630316	1,541446159	1,806008812	1,61124979
Gm7457	0,761260853	1,802404861	1,645791846	1,823920794	1,631030575
Gstp1	0,935700884	1,718813302	1,709401551	1,713176246	1,508698222
2310010J17Rik	0,869068288	1,737356995	1,69113995	1,762168412	1,537292794
Dad1	0,79116035	1,85871772	1,569707651	1,584028131	1,553046908
BC017612	0,822870595	1,884557276	1,566136965	1,692398606	1,435286135
Faah	1,002852272	1,860381019	1,495921833	1,724604016	1,734991307
Tnfrsf18	1,067374789	1,902404403	1,392952691	1,742590242	1,559915036
Rab1	0,483263415	1,443954284	1,821321762	1,685554051	1,839341854
Rpf1	0,510370102	1,51048843	1,833061125	1,763229533	1,889284137
Pafah1b1	0,434008595	1,539396197	1,751289535	1,733394045	1,852049331
Ifit3	0,530056589	1,576377139	1,827630896	1,72306448	1,695909887
Skp1a	0,701549891	1,48239597	1,819306622	1,838767215	1,737213753
Mad2l1bp	0,614570801	1,454789331	1,930747663	1,903270832	1,870539412

<i>Cish</i>	0,57082678	1,537762348	1,788852006	1,772901787	2,040366659
<i>Tmem50a</i>	0,597924663	1,598184513	1,678401142	1,732358151	2,024849387
<i>Srsf6</i>	0,682963923	1,454200646	1,714153862	1,816428752	1,997483669
<i>Fam105b</i>	0,680350693	1,489672974	1,714958599	1,85991354	1,988541265
<i>Skap1</i>	0,80448165	1,612290598	1,768122614	1,760277881	1,927067433
<i>Fgd3</i>	0,736856792	1,619438457	1,751028014	1,841540329	1,908319325
<i>Thrap3</i>	0,775828833	1,552709046	1,744527174	1,777159678	2,048069969
<i>Tnip1</i>	0,799400806	1,553331056	1,747380543	1,724748584	1,998384822
<i>Ppp3r1</i>	0,65204944	1,667347178	1,9589993	1,759044572	1,929276314
<i>G3bp2</i>	0,768086636	1,623015155	1,902729992	1,765424236	1,925618458
<i>Etf1</i>	0,553820994	1,583701022	1,913307842	1,746154023	1,945211032
<i>Dync1li2</i>	0,778490957	1,581520533	1,834637904	1,65781418	1,881036207
<i>2410066E13Rik</i>	0,804041315	1,570349875	1,795308784	1,642369242	1,919647098
<i>Rpl7</i>	0,782383894	1,536452874	1,923853728	1,692941473	1,806178004
<i>Zbtb2</i>	0,845972847	1,711661597	2,000061886	1,724859193	1,921982242
<i>Ak2</i>	0,788774295	1,634127443	2,050899497	1,774693562	1,982407625
<i>GlrX5</i>	0,802088827	1,643164845	2,006698333	1,585674079	1,999736521
<i>Prps1l1</i>	0,74211252	1,486950028	2,094493839	1,65571414	1,810008828
<i>Fpgs</i>	0,773032385	1,423284447	1,768733761	1,576543114	2,042876452
<i>Mcm7</i>	0,830622706	1,336790571	1,764182011	1,574110177	2,101365232
<i>St3gal1</i>	0,839130026	1,469085871	1,680744363	1,600188362	1,956351244
<i>1700012B15Rik</i>	0,871383106	1,443986906	1,672141225	1,617960306	1,995210815
<i>Gtf3a</i>	0,902429479	1,380442271	1,65526429	1,598361362	1,990299214
<i>Limk2</i>	0,863433739	1,324779567	1,686492026	1,439849148	1,994581599
<i>1700042O10Rik</i>	0,771071438	1,285396979	1,784433773	1,482281527	2,041314075
<i>Gtpbp1</i>	0,732197555	1,397759201	1,71658058	1,458466248	1,948276018
<i>Rad21</i>	0,866729837	1,370299733	1,809124064	1,567579455	1,995995629
<i>Ifnar2</i>	0,914690835	1,361643316	1,788238	1,543996725	1,987676258
<i>Vamp8</i>	0,92800946	1,410265074	1,863549684	1,553392546	1,985010596
<i>Evi2b</i>	0,910270548	1,309834882	1,88785194	1,571785764	1,995026818
<i>Trim41</i>	0,955500804	1,345915348	1,784834857	1,55990502	2,064828324
<i>Ppp1r15a</i>	0,917745951	1,225001052	1,907936597	1,530701331	1,910816243
<i>Elovl6</i>	1,042757946	1,393534245	1,765725458	1,579441795	1,864534686
<i>Snx17</i>	0,934567612	1,392288619	1,828969766	1,568034993	1,738092729
<i>BC005537</i>	0,930290828	1,419619536	1,890360793	1,516732383	1,850391269
<i>Nfam1</i>	0,933595788	1,467505357	1,814716337	1,575845238	1,907222368
<i>Kat5</i>	0,92164878	1,391733004	1,734665773	1,445496028	1,883858157
<i>Tnrc6c</i>	0,967589566	1,448980269	1,758197185	1,486969374	1,89326433
<i>Ralgds</i>	0,921939561	1,39239322	1,837082769	1,38588854	1,796947631
<i>4933407C03Rik</i>	0,974630721	1,45951042	1,659830721	1,398155958	1,771265427
<i>Usp19</i>	0,992474422	1,470863044	1,625649731	1,469725758	1,809016386
<i>Inpp5b</i>	0,857538677	1,480079985	1,704276809	1,47978306	1,778505837
<i>Rab8b</i>	0,931315759	1,587670666	1,698798027	1,49353071	1,888275238
<i>Relt</i>	0,88921388	1,515024959	1,725942025	1,460366324	1,874088849
<i>Zbtb17</i>	0,907913088	1,344473926	1,602242875	1,493206971	1,764001847
<i>Upf1</i>	0,977027228	1,32817409	1,656068843	1,529685196	1,87571985
<i>Strada</i>	0,841065115	1,404246732	1,676006967	1,629879783	1,810492328
<i>Rplp0</i>	0,799849158	1,348801436	1,648729722	1,619871083	1,797344872
<i>Sumo2</i>	0,841151872	1,378300263	1,707763793	1,598012255	1,73356458
<i>Topors</i>	0,567530512	1,372749025	1,645595147	1,747705948	1,76923267
<i>Gm12359</i>	0,606974404	1,30705137	1,55643168	1,748463173	1,849695335

<i>Eif5</i>	0,600146397	1,319381236	1,477354032	1,753795109	1,716831558
<i>Atp5j2</i>	0,630870948	1,406581311	1,591851542	1,619504595	1,750480201
<i>Wtap</i>	0,605831706	1,414844034	1,594233752	1,652510757	1,842288456
<i>Rps3a</i>	0,748940895	1,356784925	1,615002362	1,754488301	1,95825306
<i>Lamtor3</i>	0,778426591	1,351743651	1,608214726	1,781974965	1,823452595
<i>Fam69a</i>	0,675601038	1,435950959	1,533251039	1,831245146	1,897512136
<i>2310036O22Rik</i>	0,823891676	1,150593304	1,687668697	1,73204915	1,749761707
<i>Ppp4c</i>	0,747986607	1,244058944	1,761775017	1,702695933	1,7384711
<i>Rpl3</i>	0,654982016	1,132090512	1,580674502	1,715665666	1,883399477
<i>Gne</i>	0,767734291	1,233762036	1,655536764	1,630581577	1,881751949
<i>Nr1h3</i>	0,892544878	1,21329662	1,69559796	1,67333976	1,985984428
<i>Rbm3</i>	0,740419937	1,154022672	1,768492292	1,731357476	2,016459183
<i>Crb3</i>	0,950261628	1,19903509	1,480274744	1,833926536	1,880391847
<i>Qrfp</i>	0,941184192	1,29407041	1,423596383	1,855187571	1,801712388
<i>Kri1</i>	0,860793129	1,291537245	1,547076345	1,900775725	1,92778955
<i>Sh2d3c</i>	0,839765397	1,51773293	1,627047388	1,986386894	2,168006011
<i>2610002J02Rik</i>	0,84275343	1,489420349	1,622996945	2,049881119	2,037449917
<i>Fam83e</i>	0,813043359	1,449889585	1,578964436	1,879991468	2,068370112
<i>Pnn</i>	0,954373355	1,454535869	1,432842514	2,045800395	1,941694024
<i>B930003M22Rik</i>	0,774848208	1,226074848	1,590599207	2,051833053	2,016785176
<i>Csnk1a1</i>	0,709564	2,123004531	2,084669683	1,996987441	2,001904348
<i>Prpf38b</i>	0,735590037	2,040994867	2,101892221	1,939640392	1,966690569
<i>Mbp</i>	0,954253862	2,148121005	2,004780549	1,964420833	2,045640326
<i>March7</i>	0,807596804	1,891130638	2,081879285	2,094078925	2,149123994
<i>Fus</i>	0,862460694	1,947039274	2,039997799	2,130529145	2,235373585
<i>Cd9</i>	1,076361694	1,974521526	1,799009573	2,032555737	2,076449598
<i>Tgfb1</i>	0,958730781	2,059533243	1,815249832	2,027661328	1,920581987
<i>Ikake</i>	0,936187581	1,832921728	1,792805197	2,055591193	2,002548391
<i>Fam3c</i>	0,861455767	1,938661134	1,912687243	2,094914107	1,993764948
<i>Eno3</i>	1,08228924	1,993256453	1,912586297	1,74874569	2,035510282
<i>Eno1</i>	1,007103534	1,965487161	1,802458228	1,830887853	2,063971288
<i>3110056K07Rik</i>	0,835615909	2,081821426	1,926314664	1,664640056	1,953572252
<i>Cbx3</i>	0,884817847	1,951859278	1,90458377	1,697868617	1,95330121
<i>Folr4</i>	0,968907365	1,926970543	1,917106133	1,958261535	1,884132514
<i>Rheb</i>	0,959831789	1,886378832	1,847104291	1,822577771	1,932481682
<i>Arf1</i>	0,926760334	1,848189003	2,059381316	1,865624344	1,951114044
<i>Lonp2</i>	0,808100687	1,918571753	2,035510951	1,802402423	1,962595976
<i>Epc1</i>	0,971286979	1,759963117	1,950692769	1,801416068	2,115599511
<i>Ywhag</i>	0,959811588	1,736485264	1,957148736	1,785261385	2,055515631
<i>Tpm3</i>	0,898406998	1,823872604	1,999231295	1,846741213	2,075466299
<i>Fbxo11</i>	1,012097955	1,855454859	2,065837413	1,79650567	2,100405434
<i>Ifnar1</i>	0,943762178	1,795871333	1,996870067	1,908523823	2,222246505
<i>Stt3b</i>	0,984646985	1,760517644	2,017418295	1,931007663	2,129307805
<i>Tra2b</i>	0,802773013	1,746894188	2,081439249	1,829664204	2,024125552
<i>Ospl8</i>	0,768122671	1,74104557	2,029109528	1,818101193	2,105300268
<i>Ube2d3</i>	0,770965011	1,824555025	1,960439823	1,872476526	2,064037179
<i>Gng5</i>	0,769805225	1,84216942	1,981400144	1,822288528	2,089777025
<i>Ppp2r2a</i>	0,722195638	1,812673264	2,008911354	1,881228204	2,111644636
<i>Ywhae</i>	0,826177965	1,866143057	2,122286896	1,905201436	2,142398045
<i>Sdr39u1</i>	1,039126699	1,69326337	1,730858518	1,951167342	2,002969852
<i>Mkl1</i>	1,022308233	1,660772777	1,80447856	1,891825709	2,010805519

<i>Arhgef3</i>	0,973939175	1,660145234	1,779306501	1,829461477	1,949999652
<i>Arhgap27</i>	0,973027635	1,656262402	1,706089264	1,858809079	1,94991654
<i>Pip4k2b</i>	1,058857814	1,746283403	1,821763005	1,985353105	2,066805714
<i>Fntb</i>	0,994384852	1,756500593	1,877492506	1,921525359	2,078963277
<i>Atp5b</i>	1,062583262	1,622843405	1,944791736	1,740755368	2,019323008
<i>Morn3</i>	1,062403181	1,635984898	1,901208359	1,819116382	1,974581889
<i>Rab5c</i>	1,003695519	1,730993722	2,01055882	1,808456192	1,972304279
<i>Spen</i>	1,01489197	1,791862422	1,959451809	1,815798961	2,071864193
<i>Prr12</i>	1,067620339	1,764353322	1,936221727	1,822658342	2,017623085
<i>Bptf</i>	1,079293761	1,7477054	1,932315512	1,758590028	2,083190917
<i>Tada2b</i>	0,877502031	1,763978767	1,867308074	1,719416386	1,791472959
<i>Morf4l1</i>	1,024511375	1,754415367	1,896080979	1,705224351	1,870139915
<i>Zfand3</i>	0,871865493	1,692985153	1,75051616	1,723789903	1,890800825
<i>Sh3glb1</i>	0,908463546	1,722280324	1,756760672	1,682776279	1,936780641
<i>Axin2</i>	0,90387203	1,731272991	1,806363353	1,739479152	1,965009815
<i>Lrch1</i>	0,847420281	1,679980926	1,816053967	1,654790612	1,949769724
<i>Ppp2ca</i>	0,757855398	1,708791637	1,926394406	1,831642784	1,945431772
<i>Wdr82</i>	0,801010174	1,766487756	1,982306175	1,808284318	1,928384961
<i>Eif4g2</i>	0,835856872	1,733148953	1,853764217	1,880363573	1,893182392
<i>Brd1</i>	0,875592775	1,680023225	1,934429181	1,884966299	2,233695736
<i>Nfkbid</i>	0,846350666	1,772969687	1,843136656	1,876795575	2,176902608
<i>Plaur</i>	0,859425924	1,72024305	1,828936876	1,784718673	2,096620012
<i>Zfp526</i>	0,89109107	1,649627114	1,810043932	1,824056325	2,128338636
<i>BC006779</i>	0,744231267	1,637498127	1,825817082	1,822109355	2,202366758
<i>Rpsa</i>	0,766744512	1,64615095	1,729872838	1,821690602	2,257134765
<i>Psme2</i>	0,882044794	1,630665237	1,73178321	1,853488722	2,270919601
<i>Chkb</i>	0,954132824	1,833654247	1,741159465	1,871346189	2,245687637
<i>D17Wsu92e</i>	0,769688196	1,743550762	1,850709568	1,896152014	2,053309628
<i>Ubash3b</i>	0,855940907	1,762229319	1,83076666	1,867620325	1,997871035
<i>Clint1</i>	0,847940249	1,711077758	1,783965329	1,996363089	2,075174053
<i>6720456B07Rik</i>	0,711320206	1,876046268	1,794326316	1,959992707	2,028911596
<i>Acvrl1</i>	0,771511147	1,859132392	1,824534243	2,031874473	2,086719184
<i>Ranbp9</i>	0,870373945	1,642173604	1,89276773	1,851314932	2,0163683
<i>Lcp1</i>	0,895411401	1,582244698	1,930360576	1,798898594	2,055587487
<i>Eif4ebp2</i>	0,771459088	1,579342055	1,922688915	1,822354338	2,124933271
<i>Ankrd44</i>	0,778147847	1,628666865	1,936368261	1,826364359	2,064155325
<i>Tardbp</i>	0,877482016	1,587750445	2,010747359	1,892097392	2,150459906
<i>6330409D20Rik</i>	0,812052144	1,578396501	1,810665195	1,913129227	2,129407414
<i>Chmp4b</i>	0,816130657	1,570867666	1,815270562	1,877478771	2,133862851
<i>Ccnl2</i>	0,754857751	1,565825477	1,861935031	1,954612291	2,039240174
<i>Zfp292</i>	0,674046367	1,692990857	1,913789669	1,829015049	2,071716744
<i>Pcnp</i>	0,674642873	1,668719332	1,828748538	1,861714546	2,071554913
<i>Rbm39</i>	0,696253761	1,664815233	1,947590596	1,862563663	2,197680714
<i>Lmo4</i>	0,956042318	1,728111622	1,992131522	1,605536702	1,905309232
<i>Maml1</i>	1,072287146	1,760537959	1,92174087	1,554885694	1,931074908
<i>Ppp2r5d</i>	0,983302738	1,912204186	2,020399362	1,566126404	1,960866606
<i>Atp6v1g1</i>	1,132316737	1,89584905	1,965154268	1,424843369	1,872846577
<i>Nhp2</i>	1,084700774	1,759329731	2,230997825	1,435098798	2,091851211
<i>Slc25a4</i>	1,01215636	1,852462808	2,064731383	1,539587162	2,196012204
<i>BC056474</i>	0,912021588	2,095290533	1,941740507	1,375345755	2,104306316
<i>Wdr8</i>	0,96870386	0,902122757	1,108921983	0,914606969	1,380260796

<i>Iqcd</i>	1,021480785	0,913147361	1,12981039	0,88056572	1,352566217
<i>C630004H02Rik</i>	1,046997332	0,813830327	1,095074245	0,842153106	1,36617008
<i>Acads</i>	1,069042077	0,890277295	0,96749619	0,851285291	1,318204841
<i>Eme2</i>	0,948439607	0,756732243	1,076199753	1,061216325	1,467268719
<i>Ctu2</i>	1,060303125	0,750102463	1,002806233	1,088094128	1,463816051
<i>Asb6</i>	0,944473512	0,824323898	1,045078268	0,968829842	1,405076572
<i>Acbd4</i>	0,957129267	0,790314484	1,044123651	1,013625697	1,34676784
<i>Polm</i>	0,850025226	0,837235654	1,187014324	0,992338726	1,378334343
<i>Col11a2</i>	1,016094041	0,897151921	1,115402703	1,043362998	1,42624722
<i>Zfp13</i>	1,069601656	0,962893455	1,124341366	1,059237213	1,38783992
<i>Plekham1</i>	1,066215161	0,959600253	1,202893693	0,932337639	1,394755812
<i>Ncaph2</i>	0,734029086	0,99277632	1,095230807	0,967899112	1,423813156
<i>Mrps18b</i>	0,797816087	1,002948442	1,095562359	0,891644959	1,404556347
<i>Mamdc4</i>	0,88857837	0,989235954	1,053192546	1,032905689	1,459223841
<i>Dbn1</i>	0,911719792	1,041321292	1,116092917	0,992128231	1,471678377
<i>Ly6g5c</i>	0,862746926	1,036833934	1,125988444	0,85880928	1,509907206
<i>Tmem181b-ps</i>	0,843525649	0,927910932	1,029385897	0,833343093	1,480394253
<i>Osgin1</i>	0,911278732	0,939414484	1,007067944	0,860889852	1,470666336
<i>Gtpbp3</i>	0,90765158	1,015615615	0,956235566	0,855929774	1,388864413
<i>Ndufc2</i>	0,762798371	0,854976274	0,965594042	0,911065355	1,526127082
<i>Neurl4</i>	0,797249735	0,879399929	1,020199631	0,912877404	1,589420835
<i>Rps6ka4</i>	0,835345939	0,896119465	1,055725935	0,98564036	1,543440772
<i>Mrpl14</i>	0,924466936	1,120425464	0,951417004	1,194368515	1,593897165
<i>Kat2a</i>	0,900626345	1,110799114	0,918735257	1,121987015	1,60794652
<i>Elovl1</i>	0,982423161	1,26433937	0,902260648	0,970089487	1,476615939
<i>Pih1d1</i>	1,059014253	1,083694593	0,993891821	1,192804352	1,46091857
<i>Igfals</i>	1,136543014	1,237394921	1,018905151	1,175308887	1,563362033
<i>6030408B16Rik</i>	1,192751775	1,100028986	0,919648153	1,067569357	1,53365514
<i>Nr2c2ap</i>	1,032031808	0,987295132	1,270794509	1,028277838	1,701711628
<i>Rnf181</i>	1,042680984	1,079507238	1,306450394	1,029076667	1,716822966
<i>Bai2</i>	1,15122971	0,986951403	1,264954808	0,829889913	1,70395592
<i>Myl6b</i>	0,893714539	1,130214795	1,28920029	0,769612833	1,673647677
<i>Tm9sf1</i>	0,972054608	0,938234493	1,330389236	1,004802318	1,549182555
<i>Cox4nb</i>	0,886193141	0,909909958	1,307571262	1,013403237	1,547818242
<i>Ap1ar</i>	0,897337724	1,0214495	1,379152206	0,974044479	1,56243901
<i>Eml3</i>	0,896830417	0,903209723	1,3806911	0,935699727	1,698535431
<i>Slc25a10</i>	1,053076907	0,974215576	1,045755454	0,777730769	1,513086713
<i>Dnd1</i>	1,101622148	0,906725942	1,049879334	0,814183697	1,685305342
<i>Furin</i>	0,962917695	0,910819064	1,209444725	0,928683314	1,58858326
<i>Coro2a</i>	0,928184239	0,822191693	1,146937418	0,897016378	1,634990322
<i>Ngfrap1</i>	0,786564675	0,679667814	1,059416784	1,14685046	1,717110674
<i>Ppapdc2</i>	0,907963828	0,626391179	0,911848261	1,070901205	1,685414179
<i>Pcyt2</i>	0,95616852	0,827516299	1,001614465	1,154258304	1,727715261
<i>Vps28</i>	1,031982441	0,79050457	1,07465576	0,995405955	1,801165936
<i>Lcn4</i>	0,848203088	0,753304798	1,147486843	1,122821781	1,534589374
<i>Rpl13</i>	0,825808331	0,748429287	1,211494923	1,213308283	1,662675022
<i>B4galt3</i>	0,902079036	0,951778986	1,241048445	1,017107436	1,741555422
<i>Ift27</i>	1,002521512	0,953124063	1,156987826	1,032099862	1,628192784
<i>Eif3k</i>	0,922175698	1,048888544	1,104565118	1,101776203	1,728510831
<i>Tomm22</i>	0,978535711	0,913999779	1,14969982	1,113392486	1,778651884
<i>Tprgl</i>	0,802090555	0,968556889	1,132053579	1,193539797	1,783108554

<i>Rnf7</i>	0,784856319	0,986567476	1,031060201	1,156587991	1,685474547
<i>O610007P22Rik</i>	0,869024339	0,872297382	1,029222756	0,714976766	1,462952164
<i>Prtn3</i>	0,784897903	0,811206539	0,990783083	0,826880574	1,498912674
<i>Pmm2</i>	0,71211039	0,918685321	0,864915537	0,739952119	1,337599854
<i>Ddah2</i>	1,015724503	0,938130202	0,831969081	0,542249951	1,573451941
<i>Fv1</i>	0,843077851	0,91860687	0,82697281	0,95836895	1,51658139
<i>Gpr151</i>	0,805226053	1,070057194	0,838865862	0,808845123	1,53974068
<i>Ube2s</i>	0,989172479	0,994911421	0,798380327	0,947575556	1,443370835
<i>Fam113a</i>	1,028406241	0,988512206	0,813347992	0,860383574	1,373820248
<i>Trim65</i>	0,919931284	0,865053441	0,677280668	0,863398235	1,666625615
<i>Syt11</i>	1,09395967	0,726484687	0,936943285	0,962036016	1,300233643
<i>Nxn1</i>	1,152561696	0,715896192	1,004071102	0,942655686	1,401348851
<i>Tk1</i>	1,061792891	0,619960385	0,831652658	1,042105326	1,344729415
<i>AV051173</i>	1,075888494	0,556698217	0,860482818	0,789955397	1,465980159
<i>Uck1</i>	1,273089884	0,813629552	1,083040658	1,102577562	1,670848932
<i>Nhlrc1</i>	1,201978211	0,876684547	0,896086055	0,957683043	1,558453836
<i>Pcsk4</i>	0,996478751	1,02619656	0,847439646	1,29804727	1,502030469
<i>Nme2</i>	1,099373523	0,891758935	0,840624798	1,377761979	1,381750264
<i>Zbtb48</i>	1,099709707	0,850952907	0,793337364	1,205447809	1,541661809
<i>Dohh</i>	0,945343509	0,777028527	0,768400547	1,310240155	1,311581978
<i>Gps1</i>	0,969674164	0,563407928	0,819962608	1,277339977	1,37232804
<i>Man1c1</i>	0,517389174	0,832507314	1,060310549	1,431147717	1,447145307
<i>Adh5</i>	0,491414746	0,898635546	1,001415661	1,238306097	1,397386665
<i>Cd151</i>	0,666030607	0,795941562	1,067942714	1,352579238	1,416916422
<i>Traf5</i>	0,673161277	0,8155011	1,093280133	1,274541968	1,48848386
<i>Exosc8</i>	0,644195941	0,816119536	1,160908467	1,218570858	1,41498814
<i>Ap2m1</i>	0,61195232	0,87603667	0,928833084	1,344397048	1,431090273
<i>Fasn</i>	0,609589708	0,949300533	0,854597963	1,363169153	1,326214171
<i>Kcnj15</i>	0,707338179	0,798718273	0,937075523	1,287819208	1,258379606
<i>F730035M05Rik</i>	0,635170531	0,732346548	0,887642887	1,354954928	1,2464027
<i>Pts</i>	0,637244457	0,895323341	1,049595601	1,236367862	1,284570403
<i>Hmgcr</i>	0,599284363	0,823880073	1,066159264	1,2248177	1,253736107
<i>Abcf1</i>	0,616644161	0,93050795	1,106572106	1,207583318	1,23727414
<i>Bcas2</i>	0,627629944	0,887406205	1,136356628	1,219760093	1,241582366
<i>Dopey2</i>	0,641239316	0,813919299	1,050547996	1,147000542	1,227320023
<i>Kdm3b</i>	0,723334649	0,877328011	1,032583265	1,134914565	1,236942051
<i>Cdk2</i>	0,743536282	0,75953664	1,117004713	1,199946877	1,158555214
<i>S100a11</i>	0,728096094	0,920528227	1,220363268	1,152732015	1,254993682
<i>Dscr3</i>	0,675548662	0,898271953	1,178070254	1,159951489	1,276882112
<i>Trappc5</i>	0,724630052	0,939188055	1,189428862	1,222255629	1,233012117
<i>Taf5l</i>	0,757571517	0,905305995	1,189515566	1,180919218	1,331876862
<i>Pebp1</i>	0,784731158	0,843538005	1,178322383	1,143006821	1,304129896
<i>Ccdc84</i>	0,601516433	0,966977432	1,147542484	1,352930078	1,215420808
<i>Tmem8</i>	0,608539883	0,920926208	1,116590258	1,297189427	1,185096329
<i>Eef1b2</i>	0,614062229	0,905978073	1,233325645	1,239170746	1,125907552
<i>Safb</i>	0,54711275	0,820879816	1,175722734	1,326785304	1,309007448
<i>Mtrf1l</i>	0,560869584	0,835030148	1,130268294	1,295200374	1,265537041
<i>Dus3l</i>	0,496954049	0,568906397	1,186901166	1,289608752	1,261399438
<i>Pcna</i>	0,733443991	0,442058606	1,154602017	1,270201837	1,393653168
<i>Otub1</i>	0,811189976	0,704422297	1,187201401	1,450790697	1,362037793
<i>1700011J10Rik</i>	0,806652953	1,17398495	1,234520009	1,281491662	1,547209759

<i>Cyth2</i>	0,875785868	1,235611799	1,147766202	1,215520833	1,513498418
<i>Tor1b</i>	0,678305472	1,185143809	1,094636903	1,203734926	1,556672246
<i>Cc2d1a</i>	0,781796213	1,152303133	1,035507709	1,194236879	1,592733432
<i>Ddx58</i>	0,723739712	1,124110231	1,170195159	1,241337324	1,511025779
<i>Rnf40</i>	0,70697835	1,117041632	1,226853933	1,196084709	1,529097356
<i>Unk</i>	0,776976881	1,126583374	1,146611462	1,183514557	1,556486777
<i>Dcp2</i>	0,702470144	1,077575183	1,215892137	1,142471205	1,489881555
<i>Fbxo32</i>	0,668178996	1,14817494	1,228942159	1,171886848	1,408313637
<i>Gde1</i>	0,678630399	1,225405678	1,258794758	1,109737477	1,453940124
<i>Nipal1</i>	0,749529567	1,207098473	1,217273111	1,199294441	1,468628578
<i>Prpf8</i>	0,682502076	1,207065615	1,223968471	1,181715371	1,474218614
<i>Hk1</i>	0,852847021	1,111849165	1,203885027	1,172092204	1,389699564
<i>Sipa1l1</i>	0,850415295	1,129550375	1,249458188	1,205122148	1,374380865
<i>Coq5</i>	0,767645534	1,103282711	1,24333608	1,186544798	1,431772678
<i>Abl2</i>	0,7662929	1,096904522	1,259505986	1,177835806	1,420023336
<i>Fbxo34</i>	0,794097104	1,138012265	1,266505658	1,229652178	1,437291826
<i>Papd5</i>	0,828588493	1,133761746	1,288607763	1,2456637	1,464108556
<i>Metap2</i>	0,813457517	1,096047755	1,32030791	1,182518706	1,425801158
<i>Hmgcl</i>	0,867549381	1,025077239	1,246995052	1,251283198	1,424783741
<i>Ddx23</i>	0,764704883	1,031288064	1,207769688	1,307224962	1,42285507
<i>Patl2</i>	0,732552122	1,049664128	1,256081081	1,239154886	1,467183814
<i>Gxylt1</i>	0,730681423	1,06021237	1,277184975	1,301150468	1,429766182
<i>Nlk</i>	0,666668847	1,069611502	1,249762328	1,25008412	1,433863947
<i>4921524J17Rik</i>	0,670663264	1,077519765	1,288761692	1,240519148	1,434177577
<i>Psmab6</i>	0,767633564	1,14856307	1,308762701	0,985950269	1,541887427
<i>Rhobtb2</i>	0,766800477	1,147012532	1,28901327	1,038185714	1,494662557
<i>Setd8</i>	0,808329699	1,145150334	1,224212746	1,038881978	1,581160797
<i>Tmem150a</i>	0,826206234	1,007999567	1,282945577	1,11871483	1,505360644
<i>Sv2a</i>	0,880104378	1,048884617	1,293781732	1,061013468	1,473427072
<i>Fbxo31</i>	0,752771281	1,012657014	1,273393317	1,124754034	1,574878955
<i>Tln1</i>	0,74295236	1,008002533	1,278362131	1,148378688	1,639913468
<i>Cd72</i>	0,792755185	0,964728984	1,186422954	1,057570482	1,640270215
<i>Nin</i>	0,702262265	0,952840865	1,148343174	1,080717745	1,341266592
<i>Cox7a2</i>	0,711172499	0,920290556	1,137959857	1,093930462	1,391282172
<i>Igsf3</i>	0,774669598	0,898121279	1,153095602	1,081381871	1,349292037
<i>Slc25a28</i>	0,759035177	0,985307194	1,153285356	1,067748241	1,428627347
<i>Trpv2</i>	0,754768252	0,980258432	1,108923493	1,126978253	1,4317686
<i>Asb13</i>	0,798358572	0,919547958	1,222729948	1,167409492	1,403819493
<i>Suv420h2</i>	0,792838184	0,954891168	1,196154327	1,149784383	1,386006773
<i>Oxa1l</i>	0,749350898	0,982453984	1,205494641	1,14436197	1,431439248
<i>Ndufs2</i>	0,728679784	0,868853521	1,046701062	1,112643983	1,444281834
<i>Brf1</i>	0,768602738	0,869553907	1,071536619	1,195503706	1,381041605
<i>Slc25a38</i>	0,637459731	0,978913559	1,048834323	1,136247737	1,498781913
<i>Igfbp6</i>	0,735908404	0,965690693	0,996802543	1,228827543	1,495264361
<i>Sh2b3</i>	0,724820721	0,971471887	1,116857886	1,200571403	1,550916448
<i>Nans</i>	0,783248346	0,879516343	1,141229141	1,141285654	1,51684467
<i>Psmab5</i>	0,863806551	0,933585019	1,265725933	1,128798008	1,250835852
<i>Eri1</i>	0,879399355	1,016303688	1,336138923	1,157610189	1,27806396
<i>Nkiras2</i>	0,934319762	1,011871995	1,269163136	1,117523539	1,403795421
<i>Tceb3</i>	0,929035836	0,979917436	1,266432224	1,060496067	1,345764176
<i>Ciapi1</i>	0,871157216	0,983312013	1,202746464	1,081087702	1,384315243

<i>Anapc5</i>	0,89106585	1,010445937	1,212699627	1,181147783	1,237657883
<i>Gm14005</i>	0,873041637	1,04778644	1,204876352	1,126663532	1,219047182
<i>Irgq</i>	1,002063196	1,039160406	1,1625172	1,134779783	1,215752119
<i>Rell1</i>	0,926137366	1,054269948	1,15839667	1,040573297	1,309860866
<i>Rnasel</i>	0,86416119	1,061914707	1,123017388	1,017861203	1,370636245
<i>S100a1</i>	0,846144688	1,044234758	1,131929063	1,168935307	1,357248006
<i>Tfdp1</i>	0,87871662	1,022931557	1,193725321	1,150459322	1,339560688
<i>Trim28</i>	0,900307931	0,9976853	1,083445985	1,16649468	1,404777349
<i>Prpsap1</i>	0,875411602	1,016331346	1,123204607	1,126321399	1,39195974
<i>Pkp3</i>	0,949175654	1,02931642	1,053066085	1,115656554	1,369558891
<i>Ftsjd2</i>	0,943892657	0,920775669	1,110163364	1,082282419	1,320123772
<i>E130309D02Rik</i>	0,922254186	0,92679081	1,084052984	1,082505369	1,400479249
<i>Mvp</i>	0,983392456	0,9726278	1,009512549	1,202505787	1,222122612
<i>Sap30l</i>	1,073415586	1,015581977	1,021617701	1,106016701	1,286647858
<i>Prr15l</i>	1,035072133	0,857656883	1,095783361	1,199081323	1,302146115
<i>D10Jhu81e</i>	0,975327944	0,908436149	1,087810673	1,196061361	1,36620123
<i>Prkaca</i>	1,033079499	1,081515647	1,156324048	1,258226234	1,301749199
<i>Crtap</i>	1,015694002	1,062746146	1,088356755	1,305471637	1,313356207
<i>Atp2a3</i>	1,013902319	1,016560971	1,141925983	1,283578986	1,369780918
<i>Dtymk</i>	1,011464888	0,988693778	1,095798197	1,241513078	1,305871044
<i>Wdr86</i>	0,966754568	0,993468579	1,163369266	1,252087091	1,286290512
<i>Rrp36</i>	0,826866571	0,935532926	1,161253481	1,34465419	1,564576553
<i>Acsf2</i>	0,732615645	0,945355925	1,252103032	1,343945199	1,541192166
<i>Rpl14</i>	0,612263715	0,896343693	1,116293031	1,319646562	1,593752282
<i>Acpt</i>	0,66984048	0,915039316	1,0615656	1,319665018	1,559311515
<i>Ftsj3</i>	0,622363709	1,018927364	1,028862433	1,405307047	1,573999581
<i>Arhgap25</i>	0,597007666	1,026409406	1,092990366	1,402238932	1,485922264
<i>Rpl7l1</i>	0,631350023	1,065888087	0,99686759	1,441234026	1,418453444
<i>1190005F20Rik</i>	0,819965853	1,061379741	1,05113217	1,413818505	1,491153436
<i>Rmi1</i>	0,925464084	1,135968356	1,11846104	1,413522801	1,585592874
<i>Psmb4</i>	0,758496228	1,082902129	1,052470647	1,350022646	1,664858417
<i>Fam63a</i>	0,898905672	1,099447412	1,119349399	1,292715944	1,442208705
<i>Gmip</i>	0,836995978	1,084387882	1,06490673	1,243856393	1,479040385
<i>Tmem208</i>	0,93224965	1,139587912	0,979013307	1,325144494	1,473849949
<i>Pvrl4</i>	0,622257894	1,01704025	1,029404823	0,889914998	1,147097327
<i>Kdm2b</i>	0,672013766	1,065603041	1,059444192	0,927048717	1,172348369
<i>Ak3</i>	0,627055492	1,055092814	1,08914396	0,80305226	1,261097287
<i>Fbxo9</i>	0,659655907	1,115072433	1,042556899	0,994080875	1,2062388
<i>Cnih2</i>	0,606608351	1,139669479	1,002194024	0,962580713	1,241335043
<i>Dem1</i>	0,572632847	1,16967152	1,03312378	1,012864654	1,314617139
<i>Tgoln2</i>	0,59455427	1,145140417	1,181983971	0,984005523	1,288658985
<i>Phb</i>	0,718964561	1,146914562	1,189448174	0,902178438	1,370466583
<i>Phkg2</i>	0,644078896	1,027890583	1,167813891	0,894918134	1,37059966
<i>Zfp382</i>	0,604104281	1,028463969	1,264349126	0,87119396	1,38562386
<i>Rbm22</i>	0,674499385	0,90224329	1,223344891	1,000245716	1,24616398
<i>4933430H15Rik</i>	0,695050819	0,849967912	1,171714554	0,939518039	1,30526913
<i>Ankrd52</i>	0,641435105	0,938362296	1,136056147	0,991312036	1,305883027
<i>Plekha5</i>	0,621563165	0,896274782	1,181468666	1,019104626	1,283375758
<i>Hsd11b1</i>	0,677685697	0,979926687	1,098908571	1,006941028	1,266217848
<i>Tssc1</i>	0,700735148	1,033584158	1,165191397	0,997950273	1,316866652
<i>Eif3i</i>	0,533184136	0,967540745	1,059497029	1,018087506	1,334663898

<i>Hnrnpul1</i>	0,54184948	0,940484094	1,140502181	1,036773116	1,272951849
<i>Gm7334</i>	0,582728641	0,975494031	1,088235103	0,895968156	1,288036254
<i>Btg3</i>	0,581048952	0,971746944	1,086151478	0,895964735	1,288032672
<i>Dpp4</i>	0,588348501	0,984535595	1,06578664	0,948191398	1,255914502
<i>1190002N15Rik</i>	0,572001556	1,003599769	1,134683571	0,920330477	1,256176534
<i>Ppp3cc</i>	0,617485544	0,869845004	1,144762452	1,060147936	1,456827701
<i>Josd1</i>	0,700265803	0,85949115	1,131011982	1,046071637	1,480073834
<i>Actr10</i>	0,643231826	0,948800051	1,053446834	0,98482171	1,444790251
<i>Ino80e</i>	0,658724379	0,93689715	1,208185058	1,084678269	1,395753652
<i>Rab12</i>	0,578727328	0,966779327	1,184483814	1,007065567	1,396895077
<i>Ttpal</i>	0,660928946	1,040868969	1,136263007	1,011560407	1,420611043
<i>Fxyd1</i>	0,638255548	1,032442567	1,185884967	1,019134582	1,437946456
<i>Znrf3</i>	0,73580159	0,994846325	1,068545703	1,053197072	1,161216272
<i>Camta2</i>	0,759431199	0,993984532	1,069191779	1,097496711	1,200593035
<i>Obfc2b</i>	0,780863111	0,987038055	1,086604911	1,071548014	1,119843094
<i>Npepl1</i>	0,766180819	0,886806881	1,08204732	1,057382932	1,127298076
<i>Pcbp4</i>	0,769224089	0,902162171	1,092411608	1,10023083	1,096239003
<i>Lemd2</i>	0,754399294	0,926678574	1,041112027	1,066340398	1,244929831
<i>Ppp4r1</i>	0,737286417	0,971198078	1,090555566	1,102594247	1,270689963
<i>Sart3</i>	0,72376871	0,950234513	1,158725598	1,052230825	1,207235329
<i>Glul</i>	0,823088087	0,887935537	1,048898058	0,998453904	1,178618273
<i>Banp</i>	0,735253624	0,857726366	1,049663075	0,948383272	1,228058883
<i>Lypd6b</i>	0,737568571	0,870293184	1,021340285	1,011222322	1,100281946
<i>Ctdp1</i>	0,781976088	0,870629224	1,011882624	0,94289588	1,12591077
<i>2010111101Rik</i>	0,704584889	0,912117523	1,033902099	0,911461654	1,127393677
<i>Senp6</i>	0,654977918	0,946380289	1,028759165	0,978659125	1,129537581
<i>Adipor2</i>	0,710692028	0,895966728	0,98233396	0,950339943	1,189980712
<i>Adap1</i>	0,690529274	0,938891834	1,003884458	0,937934655	1,186277696
<i>4931414P19Rik</i>	0,675350476	0,910941472	1,020434025	0,988506393	1,187624348
<i>Spred3</i>	0,760729785	0,987680066	1,198947673	1,007737291	1,063229641
<i>Snx6</i>	0,701716532	1,022770373	1,142524271	0,985060344	1,124221682
<i>Zfp787</i>	0,733861683	0,959833393	1,275342343	1,009070197	1,154297803
<i>LOC432562</i>	0,604784337	0,974755415	1,232868004	1,021178058	1,151062477
<i>Nfkbib</i>	0,578591352	0,902396444	1,198234017	1,082871051	1,077975665
<i>Rnf34</i>	0,741352182	1,027076109	1,13281543	0,96457379	1,227096417
<i>Secisbp2</i>	0,716921481	1,016447418	1,153424326	0,867678098	1,260815317
<i>E030011O05Rik</i>	0,709494635	1,135599805	1,170685779	0,918712414	1,23426585
<i>Rnd2</i>	0,812808756	1,178682113	1,130017989	0,844928988	1,215393524
<i>Slc25a39</i>	0,915180751	1,115767704	1,093766813	0,881149792	1,283295206
<i>Trappc6a</i>	0,893267486	1,043632386	1,090917149	0,828797653	1,307607223
<i>Nup107</i>	0,933029913	1,0186677	1,043296031	0,870648012	1,234968169
<i>Brd3</i>	0,886960205	0,955004221	1,226476462	0,821909644	1,246874657
<i>Fzd7</i>	0,844072948	0,990801432	1,269759648	0,709024155	1,246783067
<i>Denr</i>	0,754838337	0,928377975	1,225255761	0,831355273	1,168462959
<i>Zfp707</i>	0,780530284	0,903521641	1,184810493	0,886198758	1,180716013
<i>Dync2li1</i>	0,887597774	0,971477325	1,279712525	0,8937964	1,348059951
<i>Galnt12</i>	0,925711268	1,103961926	1,359031637	0,89434493	1,294475778
<i>Slc39a11</i>	0,89127049	1,037748739	1,218515212	0,877040276	1,19190392
<i>Sipa1l2</i>	0,952871602	1,022542177	1,2701249	0,889621826	1,145807028
<i>Rbck1</i>	0,640733283	0,851104388	1,429439057	1,060012472	1,466891747
<i>Ankrd53</i>	0,645106201	0,934129674	1,368330695	1,022192653	1,440709854

Zswim4	0,617112407	0,812941345	1,330963402	0,987491638	1,502956005
Wdr89	0,578683105	0,862216083	1,332831541	1,008837172	1,465205605
1110001A16Rik	0,574468457	0,83764533	1,285051508	1,034829018	1,404551646
Ube2m	0,608464441	0,858924003	1,233912228	1,078080078	1,387432278
Trpm1	0,63696068	0,906176256	1,317663419	1,076698097	1,549302348
Ptges3	0,534200626	0,954415933	1,322212538	1,052371636	1,585294354
Naa20	0,448737731	0,797440607	1,430311084	1,029803775	1,511663745
Mrpl10	0,393072718	0,872707663	1,419157673	1,014104392	1,505217907
Gatad2a	0,420670167	0,819809409	1,347917645	0,969288572	1,526671797
Akt2	0,507347659	0,90905663	1,503767448	0,934011038	1,473296398
Fzd9	0,76455255	0,944341796	1,294511376	0,926960765	1,429936388
Mier2	0,761988088	0,889238259	1,252892971	0,894009865	1,4821442
Gapdhs	0,78806196	0,894487363	1,367940068	0,909230233	1,466868366
Lactbl1	0,748745463	1,017130962	1,320401134	0,786812974	1,415838918
Tbc1d10b	0,686566004	0,850506731	1,3225232	0,898525546	1,616861228
Calhm1	0,683744369	0,950563883	1,319442303	0,789919242	1,678797173
Arpm1	0,716873279	0,751851954	1,388232334	0,977783325	1,361263411
Rplp1	0,85603298	0,788011808	1,410808188	0,969829428	1,367930934
Tmem129	0,7674342	0,750943667	1,212968354	0,859719848	1,410052733
Dhrs11	0,770009298	0,779882791	1,268603343	0,869557731	1,296412132
Cox6c	0,616480004	0,59478431	1,401854386	0,971634772	1,396104397
Rarres2	0,797652279	1,011537333	1,488108887	1,104098975	1,478821217
Jagn1	0,772667322	1,029814811	1,486178345	1,136481416	1,524404544
Gm6034	0,716600373	1,048810255	1,454981598	1,107884449	1,475421564
Zc3h10	0,798270698	1,037601903	1,51823923	1,122823995	1,420868898
Mbd3	0,82626129	1,015692813	1,564381018	1,041931667	1,508214932
Akap2	0,762452121	0,980802976	1,379139728	0,989477684	1,405362175
Bicd2	0,785284809	1,035014843	1,376884261	1,059655551	1,360123998
Supt5h	0,682780315	1,01235632	1,38897539	1,115459903	1,402007519
Rilpl2	0,76734229	0,735666957	1,260470574	0,93476774	1,705425572
9330020H09Rik	0,867132773	0,732642248	1,192316212	0,947999058	1,779164457
1810037I17Rik	0,714300768	0,717076966	1,348184263	0,902886282	1,931229222
Mtap1s	0,746429925	0,959534214	1,23498692	1,017328174	1,820130557
Efh2	0,771469706	0,894202826	1,188291704	1,047249594	1,838488993
Izumo4	0,875690243	0,829846792	1,310084424	1,112336454	1,834530904
Ran	0,591082835	0,932136124	1,36392744	1,187308683	2,058876469
Gadd45gip1	0,688251663	0,79604189	1,162859875	1,152044632	2,054008645
Taf7	0,435908108	1,026445081	1,131685281	0,978201974	1,6109341
Srp19	0,467055147	0,963192386	1,0863589	0,997912895	1,695550928
Prmt1	0,526545071	0,863088302	1,211358482	0,966709285	1,623331432
Mrpl32	0,301365632	0,846197956	1,334145608	0,922421448	1,676669402
Gm13363	0,22365794	0,981536554	1,039373991	1,097077985	1,637380929
Rpl9	0,265579489	0,937939947	0,982371327	1,111611725	1,692973743
Art2a-ps	0,447187658	1,036512465	1,021639204	1,128133261	1,825819883
Fam101a	0,622338581	0,950080174	1,031706243	0,892005958	1,581578627
Kcnj8	0,630300278	1,00175513	1,08699094	0,80663213	1,694491365
Cpsf1	0,583000732	0,805296034	0,95816955	0,782409639	1,614129597
Fam111a	0,595530605	0,73283921	1,084704643	1,050017494	1,622178683
Atp13a1	0,600574084	0,788221492	1,057935968	0,998732615	1,563115339
Pou2f2	0,487373695	0,745405577	1,13376016	0,982146106	1,598097164
Polr1c	0,509209349	0,735818734	1,083865255	0,934753325	1,559077706

<i>H2-Q6</i>	0,544865401	0,53929227	0,709733236	1,188533437	1,946640283
<i>H2-Q8</i>	0,53833518	0,531583391	0,685339843	1,185188226	1,935960319
<i>Tssk5</i>	0,329110141	0,795986205	0,719288578	1,193518139	1,969132472
<i>Gm15772</i>	0,575181995	0,666731731	0,978233248	1,276489736	1,959419404
<i>Rpl26</i>	0,565740851	0,65352779	0,966324117	1,247787447	1,966126278
<i>Slc16a11</i>	0,484359243	0,75397034	1,020774252	1,002476327	1,931321373
<i>Rps28</i>	0,581643508	1,10256985	0,743424857	0,96196052	1,853647523
<i>Tssk3</i>	0,735918099	0,883871435	0,859014605	0,996091996	1,804941771
<i>Srm</i>	0,917962303	0,75706222	1,224725038	0,745651673	2,00320581
<i>Icam1</i>	0,66075766	0,781106061	1,344172235	0,57665447	1,828708862
<i>Smpd1</i>	0,722797763	0,335029141	1,314940149	0,755230511	1,886647376
<i>BC029722</i>	0,891966195	0,534557303	0,798413141	0,549746031	1,717609896
<i>9930021D14Rik</i>	0,912380345	0,658722926	0,938503319	0,590436102	1,975235586
<i>Tcf19</i>	1,233408136	0,720846737	1,352639285	1,116288498	1,570158623
<i>Zfxh3</i>	1,158036677	0,884150287	1,595030731	0,971539294	1,611920951
<i>Frat2</i>	1,03691206	0,68001392	1,620410095	0,698533886	1,701314205
<i>Tmem115</i>	1,01673835	0,929271923	1,551702991	1,073580896	1,863073747
<i>Phpt1</i>	1,15723453	0,963092556	1,621881131	1,080663432	1,950916993
<i>1110065P20Rik</i>	1,184806504	0,825870718	1,470822836	1,150391074	1,984587303
<i>Inf2</i>	0,972639298	0,824483225	1,630534963	1,217581927	1,970838967
<i>Racgap1</i>	1,038118529	0,722229997	1,382139057	1,130838656	1,819875506
<i>Dnajc9</i>	1,046600148	0,695793328	1,483123388	1,147772274	1,964816759
<i>Banf1</i>	1,291853091	1,018796186	1,341962292	0,784363494	1,963628225
<i>Amh</i>	1,257743687	1,040865052	1,317689915	0,99255169	2,128586257
<i>Dok1</i>	1,307568788	0,608365057	1,201775128	0,760268381	2,204943987
<i>A330069E16Rik</i>	0,455883004	1,23850332	0,258374856	0,725717689	1,967928958
<i>2700023E23Rik</i>	0,461969677	1,146770183	0,46997399	1,269061343	2,304557076
<i>Rangrf</i>	2,191999066	0,385935565	0,946787574	0,962874564	2,188750761
<i>Slurp1</i>	2,121403544	1,050261706	1,500455083	0,635747353	2,134297604
<i>Slc9a1</i>	1,384085438	1,501634082	1,68926234	1,484287102	1,772892714
<i>Igf2r</i>	1,334218237	1,46082613	1,72917747	1,531744783	1,762410081
<i>Ankrd13b</i>	1,386664618	1,421898641	1,653841244	1,533510927	1,802945818
<i>Cnot8</i>	1,305494966	1,421413587	1,671580171	1,43601271	1,737680646
<i>0610038L08Rik</i>	1,341244086	1,575784441	1,625666076	1,458194985	1,857753247
<i>Zbp1</i>	1,328715389	1,539455599	1,661809586	1,353373211	1,798074063
<i>Msi2</i>	1,320359302	1,537115135	1,619666862	1,524756682	1,591037738
<i>Jup</i>	1,357871112	1,473125052	1,598360323	1,452718076	1,561136623
<i>Ube4b</i>	1,333839413	1,61901327	1,598642245	1,452313522	1,600366062
<i>Zfp629</i>	1,355833198	1,560950605	1,651180019	1,383135138	1,58195705
<i>Rnf44</i>	1,187208342	1,564211832	1,798711313	1,471594151	1,815138493
<i>Tbl1xr1</i>	1,175160291	1,524439758	1,818912921	1,503338508	1,846455679
<i>Larp1</i>	1,115483165	1,467909629	1,82700788	1,439431497	1,84262285
<i>Anxa11</i>	1,120061472	1,476303748	1,914680897	1,458657146	1,70829965
<i>Wrap53</i>	1,140563737	1,496984404	1,846212638	1,529176446	1,610415348
<i>Cnot6</i>	1,097956051	1,469562469	1,744903728	1,532803012	1,629295712
<i>BC005764</i>	1,503982982	1,518299068	1,764299745	1,750409243	1,851978251
<i>Mdp1</i>	1,514854921	1,53508207	1,766891238	1,780724979	1,896459442
<i>Cdk3-ps</i>	1,446315656	1,5021178	1,713366746	1,694817027	1,78200766
<i>B230217O12Rik</i>	1,472619962	1,635536539	1,862884569	1,685411087	1,820123667
<i>Thra</i>	1,541274708	1,549207731	1,884997907	1,648122341	1,870534146
<i>Elf4</i>	1,36055276	1,505116964	1,819790209	1,560056112	1,806542353

<i>Ints5</i>	1,389405585	1,47538192	1,910246466	1,68176955	1,667585301
<i>Edf1</i>	1,373958481	1,60665737	1,729031699	1,856958984	1,700379178
<i>Rela</i>	1,330678133	1,719648425	1,722079	1,726679381	1,693328046
<i>Phb2</i>	1,491949969	1,628510733	1,847365599	1,747315531	1,608125419
<i>Mta1</i>	1,32668366	1,350535355	1,584221806	1,633952567	1,762762416
<i>Mif4gd</i>	1,294126703	1,473211258	1,571775391	1,640952096	1,747062067
<i>Parp10</i>	1,20446373	1,407657969	1,61916479	1,633302296	1,798692088
<i>Dazap1</i>	1,206347821	1,404229247	1,543666822	1,554135836	1,836886749
<i>4930471I20Rik</i>	1,222932363	1,47990712	1,550945682	1,578507719	1,633301311
<i>Camkk2</i>	1,200718401	1,535864391	1,576206307	1,537520607	1,692616853
<i>1110005A03Rik</i>	1,208050811	1,280780467	1,528638074	1,625969263	1,774603826
<i>Leng1</i>	1,234383202	1,298551248	1,547629841	1,691088539	1,644018162
<i>Git1</i>	1,273541399	1,437666626	1,571282177	1,614441436	1,943454137
<i>5830416I19Rik</i>	1,309728928	1,454098611	1,48857396	1,623790021	1,958206158
<i>Ppil1</i>	1,310969726	1,589210927	1,580618611	1,684985615	1,880915251
<i>Cyp2t4</i>	1,155902029	1,487669784	1,492735824	1,80422365	1,943222139
<i>Tspo</i>	1,187014764	1,380268098	1,490218955	1,747811682	1,822764265
<i>Rnf125</i>	1,286230641	1,387465119	1,726554286	1,670455475	1,980038842
<i>Hint2</i>	1,398068713	1,361581607	1,790617197	1,693559187	1,830341106
<i>Slc35c1</i>	1,447126923	1,35960089	1,59181933	1,667678243	1,86970989
<i>Egln1</i>	1,449348842	1,42140734	1,686964994	1,611662846	1,875515148
<i>4930483J18Rik</i>	1,246613625	1,361202723	1,647013916	1,82112963	1,857646558
<i>Hmgn2</i>	1,212243746	1,248569314	1,621428355	1,763699715	1,79020193
<i>Amd1</i>	1,153907919	1,320171542	1,738324523	1,649151975	1,77951777
<i>Amd2</i>	1,153909069	1,32017658	1,737866866	1,651273674	1,779522831
<i>Sirt7</i>	1,157132591	1,339401025	1,760706746	1,730473098	1,837413628
<i>Cd79b</i>	1,437795286	1,155671775	1,685875029	1,723243382	1,887343711
<i>Rnasek</i>	1,451138237	1,189012529	1,791364909	1,519328287	1,751342747
<i>Pdpx</i>	1,571857996	1,31981566	1,877790687	1,885744376	1,714759765
<i>Cops6</i>	1,614415768	1,268762959	1,843336579	1,713264226	1,732258143
<i>Sema4f</i>	1,500813254	1,471050922	1,423049143	1,60614581	1,585384598
<i>Phldb3</i>	1,468441122	1,55726884	1,47341992	1,653749658	1,491935553
<i>BC032203</i>	1,66606388	1,622620309	1,480252023	1,608287872	1,524676053
<i>Exog</i>	1,570643453	1,687817342	1,455724704	1,600962845	1,319616466
<i>Smpdl3b</i>	1,487153758	1,680194065	1,477129501	1,754719128	1,441175902
<i>AW046200</i>	1,295112264	1,710333038	1,511027708	1,47924701	1,509786611
<i>Galnt7</i>	1,298196388	1,577703901	1,48170184	1,53916173	1,512710684
<i>Galm</i>	1,432808156	1,682631837	1,59662486	1,5852215	1,367811905
<i>Prdm1</i>	1,409932995	1,633775693	1,626473046	1,500262531	1,334553879
<i>Sag</i>	1,244453175	1,419703723	1,562326004	1,569701343	1,534863023
<i>Hspa2</i>	1,22521472	1,398892369	1,641425418	1,737769892	1,603160157
<i>Dok2</i>	1,069974201	1,542359516	1,52051168	1,697534111	1,501686372
<i>1700020I14Rik</i>	1,158888123	1,520363664	1,638340821	1,494260481	1,334262058
<i>1810013A23Rik</i>	1,207634477	1,407581115	1,755303268	1,674403513	1,304772979
<i>Ccr5</i>	1,381401607	1,705620627	1,32322132	1,99472861	1,431908727
<i>Prkcsh</i>	1,373191497	1,74263015	1,489579239	2,078690538	1,534492262
<i>Bpgm</i>	1,197956528	1,829223839	1,564011135	1,97086955	1,481469252
<i>2310016M24Rik</i>	1,053129176	1,352880686	1,524620751	2,126451752	1,435163175
<i>Gm17801</i>	1,211186502	1,432254715	1,43994228	2,080932673	1,453502496
<i>Sepp1</i>	1,16000427	1,219162562	1,397699298	1,915671193	1,450191661
<i>Tymp</i>	1,293914433	1,279648046	1,270049927	1,771804215	2,088047318

<i>E130012A19Rik</i>	1,317835739	1,477051732	1,351591867	1,925949254	1,952490785
<i>Fkrp</i>	1,173971301	1,368415959	1,656924707	2,014119726	2,156022552
<i>B4galt5</i>	1,18750248	1,475697827	1,609127257	1,874042459	2,078106702
<i>Sap18</i>	1,182352779	1,310819689	1,542859942	1,994133538	1,933489709
<i>F2rl3</i>	1,504833153	1,639983434	1,347796468	2,109229993	1,974605407
<i>Nkx2-4</i>	1,267015445	1,757025094	1,249112045	2,152028424	2,172728407
<i>Mrps26</i>	1,147757427	1,734512352	1,3714324	1,765225107	1,820169305
<i>Polg</i>	1,22816248	1,732213731	1,427696359	1,631928108	1,69568665
<i>Eid2b</i>	1,295323078	1,64853381	1,260056929	1,666651211	1,805811925
<i>Rps9</i>	0,99344335	1,593977281	1,43979461	1,629344975	1,736238246
<i>Abhd1</i>	1,051263283	1,489385435	1,443833565	1,599360803	1,735563316
<i>Ulk3</i>	1,098345317	1,609576817	1,378206662	1,705480092	1,654438228
<i>Apobec2</i>	1,251777729	1,390214907	1,263371547	1,622549018	1,774240388
<i>BC020402</i>	1,202450696	1,386695413	1,246817748	1,495886243	1,789196746
<i>Alkbh7</i>	1,291755671	1,483561439	1,222673419	1,536106149	1,945451505
<i>Lin7b</i>	1,057915354	1,493220877	1,153127678	1,594404582	1,940154363
<i>Pnpla2</i>	1,076427072	1,485992149	1,188065649	1,672693537	1,957933882
<i>Lpcat4</i>	1,002290075	1,722722928	1,219341355	1,833250958	2,0163713
<i>2810008D09Rik</i>	1,113325638	0,807744065	1,426929083	1,541122732	1,994683159
<i>Slc39a4</i>	1,088577454	0,78160633	1,655568243	1,487792689	2,057865353
<i>Clic3</i>	0,865156752	0,680251699	1,430064231	1,536747069	2,137383824
<i>Vkorc1</i>	0,946881301	0,924077623	1,574391659	1,533813645	1,983483579
<i>Rcn3</i>	0,99395142	0,886906221	1,542042379	1,60323681	1,85012743
<i>Yrdc</i>	0,815524554	0,917394219	1,532100145	1,521869531	1,867601144
<i>Stk38</i>	1,016253353	1,146972152	1,427334594	1,721247551	1,935686269
<i>Susd3</i>	0,983736007	1,142000455	1,542020258	1,67670356	1,999494794
<i>Rpl8</i>	0,981615161	1,11914341	1,651366208	1,881847823	2,029247436
<i>Phf1</i>	1,112796749	0,935809276	1,627371842	1,679302159	1,92992937
<i>Fcgrt</i>	1,138650485	1,062812697	1,593639813	1,659214855	2,109224955
<i>H2-DMa</i>	1,441736206	0,915744512	1,668808837	1,492949752	2,162776259
<i>Aurkaip1</i>	1,333731824	0,946306232	1,416887249	1,747906558	2,116798348
<i>Ncln</i>	1,150645291	0,960138269	1,381943788	1,957886967	2,383732142
<i>H2-K2</i>	1,032542887	1,154930441	1,142296642	1,739821679	2,370323309
<i>1700029J11Rik</i>	1,178850222	1,065539943	1,454129044	1,503294286	1,577553387
<i>Ifitm5</i>	1,031178009	1,094413972	1,425256027	1,588831389	1,486999461
<i>Phf13</i>	1,079126329	1,062825059	1,624664751	1,47989028	1,626760162
<i>D330041H03Rik</i>	0,995450821	1,012430233	1,417902818	1,495025536	1,826011028
<i>Manf</i>	0,966320859	1,040537407	1,382709265	1,537228809	1,729539886
<i>Pmel</i>	1,017500046	1,154678715	1,421055191	1,639649859	1,77900591
<i>Hyi</i>	1,151896395	0,991662414	1,583067874	1,346197405	1,638722686
<i>P2rx4</i>	1,142906322	1,047706341	1,454939436	1,280891389	1,687215546
<i>9130023H24Rik</i>	1,157965054	0,834696673	1,285266607	1,753787592	1,686237937
<i>Nudt16l1</i>	0,78097133	0,875282339	1,206301278	1,267727465	1,825808775
<i>Fth1</i>	0,724930159	0,945619489	1,200154271	1,403899237	1,728170101
<i>Pdap1</i>	0,709947858	0,831852748	1,38310793	1,451252289	1,885295901
<i>Lrrc47</i>	0,878266818	0,719603114	1,25823757	1,373131964	1,769939335
<i>Wdr38</i>	0,885127421	0,871305766	1,252754834	1,442849198	1,725111826
<i>Klhl21</i>	0,992609321	0,907181501	1,299203686	1,33125818	1,893254351
<i>Rras</i>	0,896584812	0,883392076	1,306695281	1,426008004	1,990112108
<i>1500012F01Rik</i>	0,894701998	0,965933415	1,340071724	1,439653653	1,749606329
<i>Traf3ip2</i>	0,911801094	1,040599779	1,311551285	1,423113465	1,660918551

<i>Mllt11</i>	0,804858093	0,993118433	1,402622431	1,389058729	1,649212584
<i>Tnfsf13</i>	0,901933739	1,00031542	1,419021226	1,438881328	1,624553987
<i>Med10</i>	0,955039742	0,970442201	1,405112649	1,327911104	1,700215068
<i>Tubb4b</i>	0,838544294	0,900176427	1,392236224	1,550130543	1,661262544
<i>Bag5</i>	0,982459652	1,156214111	1,185735415	1,597002113	1,739575484
<i>Nrm</i>	1,086077243	1,193284657	1,13339974	1,597042008	1,786854087
<i>Susd2</i>	1,065111351	1,172414887	1,262306776	1,624669062	1,871277776
<i>Pusl1</i>	1,186482184	1,230725877	1,235237085	1,740695051	1,737498394
<i>Tmem14c</i>	1,091763013	1,253295988	1,270509316	1,458330682	1,77570934
<i>Nfic</i>	1,225710777	1,191189964	1,371070766	1,481593514	1,760046242
<i>Thap7</i>	1,144800715	1,192380118	1,377124977	1,437751373	2,002215371
<i>Grin3b</i>	1,10062798	0,963038188	1,235119356	1,476137697	2,00387595
<i>H2-T23</i>	1,097266986	1,063356631	1,065495772	1,578821484	1,988106499
<i>Xrcc3</i>	1,362266407	1,549642933	1,792128446	1,598452954	2,048400901
<i>Iqgap1</i>	1,357360465	1,528447872	1,83809879	1,619490925	2,088286396
<i>Gm16576</i>	1,385628118	1,511495347	1,899423523	1,636076707	1,951047296
<i>Uqcr10</i>	1,3169762	1,603609677	1,829624632	1,605901758	1,990970081
<i>Ccdc6</i>	1,255222538	1,605514621	1,858880415	1,569966769	1,97044815
<i>Amac1</i>	1,238972199	1,615265322	1,741988355	1,534681793	1,944124583
<i>Txnrd1</i>	1,297011756	1,777195251	1,928513078	1,687738656	1,957989632
<i>Heg1</i>	1,287686427	1,747577121	1,900091814	1,734440799	1,879253634
<i>Stard3</i>	1,233253961	1,673086754	1,912485758	1,697156546	1,957820912
<i>Vps45</i>	1,268088209	1,802369464	1,854610067	1,57939449	2,018798369
<i>Sirt6</i>	1,247520051	1,549778504	1,986386105	1,649892894	2,112904835
<i>Ncor2</i>	1,233577134	1,514158241	1,911103325	1,693674272	2,175126439
<i>Amica1</i>	1,358586603	1,454562067	1,99354646	1,621574282	2,08796773
<i>Spata2</i>	1,221747479	1,46419842	1,860867504	1,749582213	2,055496945
<i>Zfp217</i>	1,226537021	1,536355384	1,913361613	1,808613052	2,147096542
<i>Tlr6</i>	1,243468863	1,534008169	1,939005154	1,797685023	1,969782652
<i>Phf15</i>	0,97323736	1,513342905	1,972495224	1,511043546	2,192605105
<i>Tnfrsf1b</i>	1,110385036	1,589628223	2,058061044	1,547750337	2,107298727
<i>AI504432</i>	1,04819797	1,460418718	2,042792057	1,463276514	1,955798388
<i>Rpl18a</i>	1,205406217	1,363072215	1,614433554	1,326242211	1,971845191
<i>Unkl</i>	1,161738764	1,432998615	1,767819945	1,203584699	1,99346561
<i>Agpat3</i>	1,104602252	1,416428212	1,798165636	1,447641716	2,028485466
<i>Ptpn22</i>	1,291915838	1,504373509	1,72821638	1,398889157	2,016304523
<i>Gimap5</i>	1,296077619	1,450014289	1,6580036	1,315396776	1,986313939
<i>Matk</i>	1,339281299	1,504281208	1,567326659	1,411074296	1,966690245
<i>Nup62</i>	1,389524226	1,457023355	1,762653579	1,50122756	2,081876743
<i>Exoc8</i>	1,333462913	1,486037573	1,685679173	1,518952379	2,02284339
<i>Akt1</i>	1,148626981	1,368989978	1,605512001	1,567709131	2,01903718
<i>Zfp335</i>	1,185255032	1,329587078	1,624286472	1,500378865	2,043685464
<i>Mmp23</i>	1,242845019	1,226046114	1,608365355	1,597581465	1,96703337
<i>Fam96b</i>	1,11364948	1,32626028	1,644974808	1,578987086	1,934896539
<i>Psma7</i>	1,125003643	1,334090721	1,706132166	1,692144227	2,011593895
<i>Fbrs</i>	1,123764549	1,262042874	1,8627781	1,521106536	1,926458653
<i>Slc37a1</i>	1,235306545	1,233533665	1,760282863	1,506920227	1,823930903
<i>Nenf</i>	1,417571348	1,211500324	1,817628475	1,421636981	1,974097407
<i>Ccne1</i>	1,496529318	1,195076062	1,914366937	1,509747445	2,104660262
<i>Tesk1</i>	1,325699048	1,269056786	1,753936716	1,452008912	2,148353923
<i>1500011B03Rik</i>	1,274823755	1,463272015	1,638194486	1,799656695	2,236917285

<i>Srgn</i>	1,279165166	1,326814515	1,674358746	1,672043249	2,269811046
<i>Rps25</i>	1,099734841	1,496906421	1,788591764	1,790567281	2,48537253
<i>Rfx1</i>	1,126696889	1,447839014	1,839487285	1,856132054	2,271248254
<i>Rtn4rl1</i>	1,096963296	1,527896546	1,845477214	1,844434661	2,194602548
<i>Jak3</i>	1,012784419	1,475432223	1,957527945	1,864809114	2,3295827
<i>Hnrnp3</i>	1,054137091	1,502509392	1,828730644	1,911576819	2,081561198
<i>Rpl23</i>	0,980840235	1,48762144	1,769036405	1,93147345	2,148995337
<i>1810058I24Rik</i>	0,971503915	1,46240373	1,734884723	1,581903893	2,25215014
<i>Esyt1</i>	1,076666256	1,423157348	1,596093932	1,727114641	2,229967396
<i>C030018K13Rik</i>	1,00083481	1,263123784	1,557674774	1,591947799	2,169857544
<i>Sh3bp5</i>	1,010982509	1,385456467	1,770554432	1,755090651	2,259770407
<i>Prdx6</i>	0,996207222	1,380075472	1,74359164	1,902702299	2,257574308
<i>Rps18</i>	0,905329942	1,355788762	1,617525023	1,82116528	2,212534342
<i>Tlcd1</i>	1,516121109	1,315964254	1,756723971	1,708619909	2,302258786
<i>Cdt1</i>	1,598386312	1,36079992	1,672892411	1,537431297	2,251022599
<i>Flot1</i>	1,66716624	1,424119345	1,714976432	1,71208146	2,145269431
<i>Mafk</i>	1,611253122	1,505068584	1,828490392	1,667796024	2,122491359
<i>Efemp2</i>	1,526205441	1,631952718	1,790628775	1,638757672	2,431374939
<i>Ndufb10</i>	1,433430173	1,643088328	1,72345139	1,585346314	2,325851084
<i>Atp5d</i>	1,513970465	1,61054458	1,552498932	1,583283959	2,457766975
<i>Ttc7</i>	1,459859636	1,59163604	1,827974178	1,740321376	2,160703853
<i>Ndufv3</i>	1,519413377	1,602728521	1,746497897	1,82444793	2,305595774
<i>4930579G18Rik</i>	1,30157892	1,624228404	1,711776127	1,832966353	2,162351825
<i>Tnfaip8l1</i>	1,464376978	1,469791608	1,803306525	1,85560622	2,185387766
<i>Stard5</i>	1,469644433	1,508759731	1,742254562	1,800242859	2,247876828
<i>Gm14378</i>	1,443902187	1,367808545	1,715343138	1,825827096	2,249453063
<i>Klhl17</i>	1,360158683	1,493143458	2,077570818	1,809982003	2,376201348
<i>Rbm15</i>	1,344711607	1,51493728	1,949543879	1,810140986	2,402909502
<i>Rpl29</i>	1,325562546	1,667065857	2,004207789	1,713675487	2,326066082
<i>Irf3</i>	1,327912734	1,471699752	2,023913388	1,905397501	2,227628851
<i>Utp3</i>	1,506357592	1,587799712	2,031996399	1,899882704	2,189732332
<i>Cst7</i>	1,092423476	1,27963007	1,97471431	1,478184812	2,179730801
<i>Zyx</i>	1,224576481	1,344467056	2,04117988	1,548175582	2,268546485
<i>Mst1</i>	1,063148801	1,228064208	1,993954073	1,721477314	2,29219277
<i>Cdk9</i>	1,139313175	1,409746921	2,012390038	1,658907793	2,174921496
<i>Trp53i13</i>	1,070668272	1,44028093	1,938630248	1,63810342	2,10884043
<i>Exosc4</i>	1,087023181	1,489117172	2,004685628	1,779007395	2,15763479
<i>Hnrnpab</i>	1,073385202	1,528721328	2,065024458	1,642285819	2,258187286
<i>Nfyb</i>	0,964948687	1,430638429	2,094291948	1,679842929	2,216035723
<i>Cnr2</i>	0,973418867	1,444095785	1,858264255	1,514667844	2,484857085
<i>Sec11c</i>	0,918030002	1,458172282	1,821490495	1,372793044	2,248867056
<i>Unc119</i>	1,248741447	1,436101222	1,921919802	1,465543755	2,394297294
<i>Mta3</i>	1,232553896	1,487479792	2,031511223	1,432723013	2,431053943
<i>Bet1l</i>	1,251537411	1,179625672	1,949361165	1,473715262	2,422288754
<i>Tbkbp1</i>	1,401316024	1,386600096	1,980475061	1,657327593	2,283005344
<i>C1qtnf6</i>	1,36406764	1,454698388	2,027066009	1,426753079	2,188519314
<i>Lgals3bp</i>	1,183149139	1,454527505	2,142673829	1,698672475	2,368375414
<i>Apobec3</i>	1,145444292	1,545142109	2,055987721	1,667367181	2,451452563
<i>Dom3z</i>	1,115722826	1,568128509	2,236662693	1,702883673	2,380661851
<i>Apom</i>	0,988632643	1,631107978	2,058450553	1,622779379	2,440051479
<i>Med16</i>	0,932793303	1,215769647	2,18377274	1,378513838	2,50067417

<i>Rps12</i>	0,804669715	1,219668442	2,076094845	1,537888864	2,542969695
<i>0910001L09Rik</i>	0,997782187	1,236080723	2,250136537	1,609619528	2,597271154
<i>5830432E09Rik</i>	1,424695697	1,367906211	1,899627697	0,773392931	1,944184345
<i>Tnni3</i>	1,229665966	1,187096676	1,995212539	1,131149236	1,964219856
<i>Sox12</i>	0,97165343	1,668175396	1,823674714	0,957496023	2,072483144
<i>Fgf17</i>	0,990588353	1,313172731	1,881028725	0,749703944	2,096030583
<i>Lcat</i>	1,572289727	1,42041243	1,807298944	1,076135258	2,183174091
<i>Fbxw5</i>	1,396290337	1,659881037	1,795446226	1,270982425	2,370830139
<i>Ehd1</i>	1,498167107	1,096973956	2,225075077	1,080891532	2,450789721
<i>Snai3</i>	1,524448093	0,918335	2,212562923	1,003441554	2,031346982
<i>Frs2</i>	1,506874215	1,767290831	1,715043943	1,625682209	1,730517801
<i>Rnf41</i>	1,529591131	1,765125677	1,657779602	1,694970801	1,61691756
<i>Cnst</i>	1,399540127	1,834677236	1,611039632	1,650877366	1,611894737
<i>Cdyl2</i>	1,516641221	1,715133428	1,730117978	1,474599762	1,633012871
<i>Ksr1</i>	1,47319396	1,666655862	1,727226715	1,50420001	1,569871099
<i>Trat1</i>	1,552896424	1,764141297	1,61999199	1,497835977	1,555569042
<i>Ubqln1</i>	1,372598059	1,665858065	1,662320414	1,522029115	1,746078934
<i>Cdk19</i>	1,354166967	1,57659635	1,639070801	1,563757724	1,746184838
<i>4930481A15Rik</i>	1,280330558	1,658918431	1,596229557	1,561451597	1,7287805
<i>Ctcf</i>	1,361893025	1,649554262	1,567940238	1,55415107	1,615243621
<i>Zbtb24</i>	1,359377634	1,58462162	1,49334341	1,568452328	1,653900177
<i>Ier3ip1</i>	1,381801242	1,61606194	1,681976853	1,639643415	1,566697267
<i>Rnf43</i>	1,475224683	1,662805908	1,625355219	1,655622264	1,60654404
<i>Mus81</i>	1,686092904	1,682578378	1,554908614	1,481081765	1,869273648
<i>Fbxl22</i>	1,594162074	1,75908702	1,461191832	1,414132037	1,716595401
<i>Klhdc9</i>	1,469946772	1,7007028	1,415290401	1,652189804	1,790583879
<i>Rilp</i>	1,434479519	1,722293755	1,726131131	1,315535567	1,848644904
<i>Cdk5r1</i>	1,4583511	1,715066095	1,820766732	1,25673665	1,842782196
<i>Fbxo46</i>	1,380582587	1,65931528	1,71133033	1,375521403	1,971935497
<i>Slc39a5</i>	1,58483456	1,600104119	1,677637363	1,27330893	1,950273121
<i>Zbtb45</i>	1,291964466	1,812397021	1,492153179	1,390950158	1,891484087
<i>Lsm10</i>	1,421069734	1,868506653	1,647231992	1,47802712	1,900044106
<i>Abhd15</i>	1,615752422	1,562916827	1,666725981	1,447296777	1,734707831
<i>Mgat4a</i>	1,664275518	1,486427864	1,69736902	1,46794405	1,73105729
<i>Mgst2</i>	1,716969399	1,536061098	1,739283643	1,438212858	1,676241637
<i>Vdac1</i>	1,586191971	1,462997819	1,805247332	1,422315666	1,737864419
<i>Dalrd3</i>	1,640078129	1,390951068	1,723292669	1,401596407	1,794293222
<i>1700003D09Rik</i>	1,598146089	1,560813456	1,85543015	1,322496414	1,696954949
<i>Fam36a</i>	1,572779715	1,616065046	1,736613104	1,376374202	1,679727076
<i>Epm2aip1</i>	1,621354297	1,520816677	1,946794764	1,494745935	1,71382271
<i>Ppp1r1b</i>	1,488634655	1,468254843	1,867824546	1,35950376	1,677601212
<i>4933429K18Rik</i>	1,456987999	1,404257906	1,7764114	1,271174311	1,750748285
<i>Slc16a1</i>	1,464145816	1,559587114	1,920264048	1,369982437	1,911778408
<i>Plcx2</i>	1,428405942	1,514580519	1,80159201	1,347739562	1,833908575
<i>Lrmp</i>	1,411691114	1,73408331	1,754055652	1,560876994	1,6964664
<i>Foxp4</i>	1,391036113	1,682773946	1,775844159	1,583399096	1,771634277
<i>Fam71f2</i>	1,361179563	1,62695283	1,85555118	1,442087027	1,70881399
<i>C1galt1</i>	1,434998607	1,693197553	1,861452934	1,558964364	1,790107311
<i>Mrpl51</i>	1,457093347	1,724345043	1,939959312	1,532219423	1,783838723
<i>Ano6</i>	1,495954594	1,706857149	1,840054866	1,543865215	1,681644528
<i>Psmg1</i>	1,35633107	1,586556833	1,956740407	1,408169896	1,535254568

<i>Rapgef1</i>	1,553348139	1,638904556	1,671204024	1,532286954	1,742324821
<i>Pgs1</i>	1,599479726	1,568763607	1,700884698	1,54782886	1,726866316
<i>Ampd1</i>	1,585780389	1,587372358	1,734671575	1,656395769	1,716039342
<i>Chad</i>	1,515921053	1,499662013	1,592919997	1,667121212	1,669765709
<i>Bscl2</i>	1,734169059	1,442585704	1,705468543	1,413848409	1,560242997
<i>Hic1</i>	1,714134606	1,449712895	1,781346881	1,569682357	1,653430493
<i>Pnkp</i>	1,651270701	1,488448506	1,719144677	1,599370343	1,479438277
<i>Dpcd</i>	1,69031877	1,744663277	1,78856455	1,52745058	1,659493276
<i>Gm11201</i>	1,666548909	1,652429704	1,75555069	1,596291019	1,671183273
<i>Frmd6</i>	1,711950729	1,73442522	1,74050191	1,594157741	1,570305613
<i>Gm15471</i>	1,739646546	1,758357293	1,621885927	1,477667444	1,667871607
<i>Xpa</i>	1,686552847	1,743028013	1,625811303	1,530320662	1,58242692
<i>C920006O11Rik</i>	1,52137578	1,92173496	1,855043979	1,548428021	1,384805461
<i>S1pr4</i>	1,541660648	1,752685248	1,875257641	1,404466832	1,422788721
<i>Gm1337</i>	1,52597101	2,165911351	1,691355251	1,504299395	1,550890059
<i>Tapt1</i>	1,584902199	1,760743328	1,840950885	1,346892109	1,603492624
<i>2310040G24Rik</i>	1,629577593	1,688438695	1,819865893	1,316129858	1,549734624
<i>A930024E05Rik</i>	1,694809822	1,825841766	1,830169722	1,272403686	1,505047914
<i>A130077B15Rik</i>	1,88767268	1,750058294	1,884971093	1,388830459	1,589705579
<i>Pipox</i>	1,788222033	1,705995662	1,96883393	1,305781908	1,659357485
<i>Olfr1510</i>	1,697219909	1,886074328	1,793545593	1,036354043	1,459148549
<i>Tnfrsf9</i>	1,460923505	1,78302731	2,069350575	1,601157214	1,867688763
<i>Mbtps1</i>	1,478396062	1,680995697	2,038920222	1,654395711	1,932240057
<i>Cdh24</i>	1,533209124	1,809820566	1,961703232	1,539962889	1,836850446
<i>Kctd11</i>	1,40035409	1,674805602	1,976736716	1,314476855	2,004393167
<i>Ccdc85b</i>	1,466460411	1,869117957	2,214814774	1,563868666	1,983086075
<i>Ormdl3</i>	1,382482062	1,865798975	2,155869117	1,364237579	2,027361043
<i>Ssbp3</i>	1,416684485	1,623283224	2,046004488	1,540380085	2,000417833
<i>Arl6ip1</i>	1,266476225	1,532110482	2,097188273	1,577683979	1,986807745
<i>Acd</i>	1,490310756	1,448736527	2,108812413	1,528448261	1,758436931
<i>Lst1</i>	1,499753376	1,458014623	2,098519263	1,523379594	1,930786417
<i>A630095N17Rik</i>	1,086457119	1,822303642	1,902399661	1,687412749	1,542984312
<i>Nr3c1</i>	1,190089054	1,849661688	1,731172568	1,710084725	1,583679386
<i>Slc25a5</i>	1,327191123	1,892672602	1,827831732	1,712317338	1,401050772
<i>Minpp1</i>	1,198707101	2,042833056	1,752138266	1,872399877	1,656007393
<i>Srfbp1</i>	1,43840538	2,008836245	1,92631771	1,723149376	1,75064702
<i>Cnn3</i>	1,404548487	1,97001675	1,926193203	1,663486723	1,637458259
<i>Tmem11</i>	1,278761723	1,944198455	1,878325093	1,689145303	1,822059337
<i>Rpl12</i>	1,41209848	1,935278294	1,860318533	1,564565762	1,724706542
<i>Ripk3</i>	1,374236284	1,832066233	1,943243675	1,609135476	1,701318858
<i>Ptprc</i>	1,3638598	1,843090607	1,838562415	1,506680955	1,60611999
<i>Zfp3</i>	1,362420648	1,863164163	1,902257224	1,441530036	1,722556282
<i>Gm10485</i>	1,388999687	1,865052475	1,855726608	1,446896738	1,82249846
<i>Fkbp1a</i>	1,366983159	2,172101959	1,637852025	1,940123751	1,560200042
<i>Pxmp4</i>	1,517601895	2,169536899	1,762739671	1,768627136	1,516000761
<i>Slfn5</i>	1,5303077	1,855770627	1,611994326	1,873029566	1,765936723
<i>Spcs2</i>	1,658838837	1,88334428	1,579354055	1,764392753	1,660143257
<i>Gm10007</i>	1,293030725	1,908073848	1,46524434	1,436997509	1,52005612
<i>Zfp422</i>	1,190852167	1,815349745	1,535828606	1,406143761	1,466316718
<i>2810008M24Rik</i>	1,291663325	1,879398313	1,60004376	1,538316504	1,343799272
<i>Trio</i>	1,221358477	1,752416146	1,557698681	1,581729519	1,443791808

<i>Tnni1</i>	1,234713116	1,808913903	1,65472017	1,525173703	1,488357333
<i>Dgkd</i>	1,265358803	1,707336566	1,613233165	1,570346322	1,550764255
<i>Crygn</i>	1,217902838	1,897812893	1,464613854	1,69536993	1,404216022
<i>Mamstr</i>	1,321750133	1,766961294	1,38763237	1,694327231	1,503837597
<i>Smad5</i>	1,246108296	1,626403206	1,479556675	1,628548464	1,38597623
<i>Got1</i>	1,348200485	1,719463915	1,392670305	1,642683014	1,298277232
<i>A330076C08Rik</i>	1,052342528	1,825682706	1,695547672	1,612680078	1,373876022
<i>Selk</i>	1,076791175	2,000053964	1,63948755	1,612389546	1,166644851
<i>Dynlt1b</i>	1,664808461	1,546967951	1,526105333	1,231513049	2,137202923
<i>9930012K11Rik</i>	1,484052586	1,5685884	1,473133506	1,150857665	1,96366885
<i>1700003F12Rik</i>	1,656545944	1,819717703	1,144451483	1,076265593	2,008343695
<i>Mrfap1</i>	1,395813778	1,772973074	1,409854435	1,443194788	2,309764044
<i>S100a6</i>	1,508242237	1,806088464	1,440834536	1,428727261	2,095682862
<i>Ocel1</i>	1,46590782	2,038752871	1,473043126	1,218093944	2,107600542
<i>Zfp593</i>	1,944028397	1,746159676	1,373884807	1,254932322	2,082621882
<i>2610001J05Rik</i>	1,784271058	1,935189216	1,369394862	1,550579374	2,110806123
<i>E130218I03Rik</i>	1,965062783	1,977885328	1,675925797	1,207223959	2,03201438
<i>Ppp1r14b</i>	1,86177072	1,584131808	1,577390631	1,039539422	1,619480292
<i>Nme4</i>	1,82119557	1,610030185	1,596340043	1,036358334	1,646905657
<i>Card9</i>	1,858668957	1,657041786	1,515140542	1,013670296	1,512377615
<i>Gm6623</i>	1,962648775	1,622239901	1,253366596	0,873525988	1,576043321
<i>Rab24</i>	1,675633181	1,518607995	1,465039431	0,902768741	1,90042604
<i>Pim3</i>	1,597934443	1,505733067	1,293739021	0,967694731	1,637923627
<i>2210404O07Rik</i>	1,695067574	1,587123281	1,630577597	0,644741061	1,748544181
<i>Bmp7</i>	1,765791123	1,453447885	1,484243818	1,286810446	1,247222019
<i>Dgke</i>	1,855495096	1,394551756	1,493268392	1,247910767	1,326387061
<i>Cyb5b</i>	1,957472971	1,41794245	1,453299622	1,166910993	1,345095637
<i>Creld1</i>	1,943876626	1,429780949	1,417327841	1,210691119	1,458401118
<i>Hexim2</i>	1,643052424	1,260608787	1,465975672	1,172011784	1,265372134
<i>Arhgef40</i>	1,678424558	1,330434819	1,454103444	1,121960194	1,291383732
<i>Xkrx</i>	1,740922041	1,297801063	1,647485215	1,085923581	1,283255317
<i>Tgfb1i1</i>	1,562367098	1,380572419	1,48720382	1,13406852	1,396178592
<i>Shf</i>	1,604600785	1,422989998	1,46520789	1,192602336	1,474538067
<i>Pex6</i>	1,462347045	1,426794399	1,378882958	1,174737935	1,4073948
<i>Gm16793</i>	1,494987377	1,599279296	1,400670313	1,112638024	1,390260635
<i>Dexi</i>	1,472350672	1,533652858	1,425410972	1,176708558	1,331740534
<i>Zscan20</i>	1,549233306	1,578291808	1,436679116	1,206196893	1,395552411
<i>Col15a1</i>	1,563915793	1,496616481	1,492831053	1,167080625	1,340651631
<i>Pnrc2</i>	1,608458412	1,510970549	1,536679978	1,200155847	1,291687881
<i>Ppef2</i>	1,718891127	1,575031753	1,543300103	1,108617203	1,393913113
<i>Mgat5</i>	1,598669613	1,52652688	1,50500451	1,23613858	1,468928595
<i>5730435O14Rik</i>	1,597205048	1,52722167	1,494315033	1,119917503	1,505943218
<i>Tbx19</i>	1,724481061	1,493865911	1,549072829	1,158730269	1,432953103
<i>Ndrp2</i>	1,69743248	1,430252544	1,514364467	1,202970469	1,456871566
<i>Usp1</i>	1,365518543	1,379780749	1,617704397	1,381743918	1,558035641
<i>Gm4285</i>	1,341452809	1,349866137	1,602124384	1,332663963	1,48036666
<i>Tspan5</i>	1,351217208	1,468099002	1,600250225	1,324524497	1,548208782
<i>Zhx2</i>	1,42271554	1,383056669	1,460334373	1,308039253	1,483954504
<i>Mtap7</i>	1,325073162	1,39890081	1,473394936	1,332564385	1,40034326
<i>Mcoln2</i>	1,3586505	1,519217014	1,456624584	1,333760143	1,560215428
<i>Neat1</i>	1,440866349	1,481125605	1,452750182	1,339900973	1,573145816

<i>Zfp523</i>	1,531322045	1,471086204	1,48114867	1,246302557	1,534434074
<i>Igf1r</i>	1,528949659	1,456913946	1,508058665	1,281840421	1,541147164
<i>Csnk1e</i>	1,521277114	1,382826998	1,518862597	1,457554595	1,577304036
<i>Wnt5b</i>	1,493014577	1,409545538	1,534087441	1,400462505	1,576821054
<i>Msh5</i>	1,419005637	1,384689275	1,565672912	1,477989743	1,538388723
<i>Zbtb8a</i>	1,477485379	1,318079782	1,521757436	1,373147246	1,622984716
<i>Psmc3</i>	1,40840166	1,279598345	1,532293476	1,342740584	1,632978464
<i>Fbxl18</i>	1,513706994	1,293119316	1,278813528	1,302628992	1,52477723
<i>Nr2f6</i>	1,47880686	1,228759075	1,197666095	1,393018198	1,584853282
<i>Pxt1</i>	1,504477887	1,25744155	1,335502739	1,427070334	1,398520034
<i>5930416119Rik</i>	1,562668636	1,443739573	1,242147387	1,40054657	1,543544237
<i>Ftsj2</i>	1,490151379	1,493334235	1,276719941	1,371024519	1,545038817
<i>Ficd</i>	1,826322098	1,327289374	1,594319085	1,557019232	1,50908478
<i>Hcrt</i>	1,915250422	1,206269248	1,489078724	1,575302699	1,487262187
<i>Ttc30a2</i>	1,700740716	1,094601291	1,712406501	1,492606183	1,677481941
<i>Prr18</i>	1,610922219	1,097375818	1,474520905	1,814999486	1,491831454
<i>Sult2b1</i>	1,532136727	1,195428053	1,442616497	1,58264275	1,599385151
<i>Dirc2</i>	1,620133	1,305854017	1,45461906	1,562496321	1,626161245
<i>C330006A16Rik</i>	1,615662194	1,184502156	1,549563255	1,604080919	1,465294527
<i>Gng10</i>	1,61843399	1,388101866	1,39327048	1,429519837	1,560402405
<i>Zscan10</i>	1,707515009	1,324512446	1,34457498	1,548189437	1,448950599
<i>Gpr3</i>	1,816685591	1,243831763	1,694034823	1,479389112	1,908068256
<i>Dtx3</i>	1,671913203	1,371448251	1,5990436	1,496787162	1,950396422
<i>Inhbe</i>	1,603629207	1,384415087	1,786637145	1,359560183	1,929397721
<i>Cox8a</i>	1,621320786	1,253875035	1,726148219	1,23962724	1,923624512
<i>Akt1s1</i>	1,745796261	1,545928366	1,681146888	1,357362894	1,897225208
<i>2210016F16Rik</i>	1,756855515	1,522047376	1,677989951	1,480362029	1,882601237
<i>Med22</i>	1,796694683	1,511988761	1,560143046	1,389321415	1,874603312
<i>Degs2</i>	1,783874945	1,470101144	1,590546212	1,483482055	1,730195934
<i>Bbc3</i>	1,459071404	1,572159913	1,457072043	1,384657915	1,697257809
<i>Tmem131</i>	1,480094809	1,558770565	1,602193449	1,470712952	1,736510026
<i>2900008C10Rik</i>	1,572628545	1,503033193	1,52174172	1,428019832	1,582332386
<i>Rfx5</i>	1,597615606	1,542000794	1,503325303	1,455080598	1,592905007
<i>Xbp1</i>	1,67006268	1,453249314	1,493665429	1,471059159	1,604873989
<i>1700052K11Rik</i>	1,646183978	1,576594588	1,545581974	1,509881543	1,668753742
<i>Celsr1</i>	1,506186559	1,415264193	1,690604679	1,406644516	1,721155441
<i>H2afy</i>	1,470223688	1,430128112	1,620065158	1,471836964	1,826544419
<i>Slc25a22</i>	1,493438817	1,488599918	1,628366488	1,27969347	1,768349076
<i>Cyb561d1</i>	1,541520225	1,467052201	1,599618991	1,363781043	1,729404092
<i>Dnahc17</i>	1,667880246	1,327478757	1,490440084	1,264265014	1,599776746
<i>Tjp3</i>	1,717889797	1,290273849	1,536793185	1,309096264	1,638582508
<i>Gm10684</i>	1,790138753	1,413462348	1,57053762	1,317411518	1,623541867
<i>Hlcs</i>	1,725646884	1,374814915	1,600664234	1,261196087	1,814893702
<i>Nhp2l1</i>	1,708420348	1,357571536	1,553396387	1,328462267	1,790964051
<i>Tab1</i>	1,624181018	1,399948769	1,542168617	1,272369308	1,727745351
<i>Trim17</i>	1,463695154	1,295265196	1,441286688	1,448769713	1,763859492
<i>Carns1</i>	1,459177139	1,306587832	1,497618562	1,468079179	1,767318341
<i>Mfsd12</i>	1,507350258	1,31248122	1,386760247	1,333461224	1,712943495
<i>Zcchc3</i>	1,625225272	1,46708136	1,326727952	1,367384579	1,89165897
<i>Hist2h2be</i>	1,806014994	1,163364871	1,36319728	1,159971849	1,816292578
<i>Tusc2</i>	1,864392211	1,161458947	1,353178393	1,472056545	1,983788467

<i>Il20rb</i>	1,971637332	1,516887158	1,530303959	1,296344602	1,770418026
<i>Ppp1r3e</i>	2,106196843	1,38891042	1,378154902	1,30119905	1,911623874
<i>G630025P09Rik</i>	1,293782024	1,171065194	1,515780388	1,440291322	1,64926177
<i>Fam69b</i>	1,431456259	1,086767647	1,444495573	1,476533228	1,652828011
<i>Lbr</i>	1,404026316	1,105610188	1,526071554	1,545726032	1,708486728
<i>D17H6S56E-3</i>	1,471206833	1,161928002	1,555148011	1,551156944	1,774264741
<i>Hint1</i>	1,377531398	1,215754598	1,530170299	1,527332969	1,961111163
<i>Nradd</i>	1,352020261	1,188023295	1,441743069	1,477397072	1,935382565
<i>Gna11</i>	1,305933412	1,028664884	1,504769173	1,573250653	1,893091032
<i>Rrm2</i>	1,536790292	1,212786943	1,632663079	1,377927536	1,851831047
<i>Gna15</i>	1,581677404	1,287005869	1,533117999	1,31759997	1,950598177
<i>Fbxo5</i>	1,649015792	1,168994905	1,534682334	1,206900896	1,887982263
<i>Tmem240</i>	1,343305502	1,145913968	1,557875135	1,161187267	1,961807792
<i>LOC319574</i>	1,475889208	1,073667552	1,617405755	1,142943375	2,038537884
<i>Baiap3</i>	1,411644472	0,940640492	1,287144076	1,207525064	1,825867409
<i>Pcolce</i>	1,474815336	1,077435527	1,336717784	1,288085937	1,91115202
<i>Cfd</i>	1,421866601	0,859582733	1,393115095	1,455576879	1,834565491
<i>Ndufaf3</i>	1,583004465	0,775710807	1,383354164	1,152972078	1,809839447
<i>Bax</i>	1,661734183	1,153544838	1,517104058	1,019613303	1,601329696
<i>Gylt1b</i>	1,570532828	1,256601487	1,56342662	0,972352655	1,645707427
<i>Itgad</i>	1,554343723	1,143240439	1,42389551	1,141203947	1,611349837
<i>Gm572</i>	1,649326766	1,245383928	1,684372451	1,067449429	1,497981766
<i>Pold1</i>	1,723309757	1,178114786	1,605792608	1,064958912	1,525133459
<i>1110002N22Rik</i>	1,651846253	1,165524933	1,597578634	1,185658859	1,608324744
<i>Prdx5</i>	1,389621553	1,070144276	1,764839969	1,076557057	1,591340787
<i>Tcirg1</i>	1,490210947	1,080499692	1,747488449	1,093293745	1,818611354
<i>Lrrc23</i>	1,433219685	1,261472769	1,893509803	1,10311688	1,733254328
<i>Pgap3</i>	1,502984909	1,165597427	1,782649449	0,858851598	1,745228849
<i>Plcb2</i>	1,195653485	1,195654724	1,19509631	1,326175458	1,440493049
<i>C030037D09Rik</i>	1,260047074	1,238134613	1,079964792	1,335060544	1,471816312
<i>Ano8</i>	1,268791866	1,200713338	1,293004504	1,30424953	1,491621403
<i>Pik3r2</i>	1,260231931	1,149530862	1,291378635	1,34102332	1,558022263
<i>Cxxc1</i>	1,319729666	1,153766193	1,288323299	1,226215687	1,554641237
<i>Slc16a3</i>	1,240334987	1,239868502	1,164844466	1,513087373	1,658954287
<i>Xkr8</i>	1,229702735	1,307734583	1,201237174	1,458813322	1,570245523
<i>Syngn2</i>	1,38363826	1,185047688	1,133354385	1,351077202	1,78434867
<i>Spag4</i>	1,34313859	1,013719565	1,127713429	1,325548079	1,785867138
<i>Kpna2</i>	1,121135501	1,071671897	1,184499779	1,368662902	1,679118558
<i>Kif22</i>	1,193015198	0,961849709	1,12453349	1,339525065	1,716622686
<i>Fgf22</i>	1,527217305	1,105749799	0,893583327	1,185608436	1,784695517
<i>Chst14</i>	1,562074609	1,076623562	0,851274472	1,418454379	1,742123669
<i>Nprl2</i>	1,251176484	1,003905923	0,842101626	1,256931551	1,907208946
<i>Commd5</i>	1,542643748	1,528559618	0,797712409	1,478978602	1,568494355
<i>Dnase1l2</i>	1,252534434	1,511287111	0,827637478	1,279827269	1,661077614
<i>A830009L08Rik</i>	0,95743242	1,152670025	1,242644039	0,997266688	1,34597343
<i>Tcf3</i>	0,933484541	1,131247811	1,268509728	1,002799588	1,359736137
<i>Ldlrad1</i>	1,013717864	1,042666739	1,228010317	1,032060725	1,403042903
<i>Gm6644</i>	0,985125149	1,148364892	1,253712887	1,110759129	1,404754495
<i>Akr1b3</i>	0,979085555	1,143843242	1,250570485	1,113687454	1,402363309
<i>Taf4a</i>	0,938567235	1,106522778	1,249482457	1,127222741	1,417394914
<i>Tnrc18</i>	0,874768729	1,168185543	1,292207841	1,052920027	1,441309718

<i>Myl7</i>	0,880240957	1,148820531	1,268790793	1,050912423	1,409883835
<i>Zfp652</i>	0,96753153	1,125670907	1,16622842	1,154582727	1,515752795
<i>Fhod1</i>	0,890357581	1,118962442	1,167883995	1,126295259	1,478218931
<i>Slc25a29</i>	0,970444861	1,112315369	1,157352675	1,054708324	1,457649614
<i>Syt13</i>	1,180582222	1,165850585	1,317294136	1,050964867	1,408861287
<i>Grrp1</i>	1,14560204	1,133121775	1,267934545	1,068802928	1,428924273
<i>Fkbp10</i>	1,199990431	1,054580867	1,312733809	1,08898965	1,426338518
<i>Airn</i>	1,064897622	1,149483099	1,375945254	1,171004419	1,386337154
<i>Clic4</i>	1,11995919	1,181369183	1,345489265	1,116854024	1,377695369
<i>Ano10</i>	1,115943379	1,185678543	1,317742286	1,161354532	1,469384102
<i>Ehbp11l</i>	1,149535519	1,032158154	1,276067766	1,083944732	1,360719617
<i>Pmf1</i>	1,139292126	1,020594656	1,23354621	1,137152209	1,323613748
<i>Ghdc</i>	1,10055354	1,061598955	1,316070602	1,182974203	1,347380426
<i>Dym</i>	1,115943135	1,115672132	1,199356967	1,154899435	1,337897793
<i>Sh3pxd2a</i>	1,148945994	1,173062476	1,244597393	1,129608166	1,305802358
<i>Lamb2</i>	1,096631774	1,125635141	1,268902194	1,10299115	1,320026606
<i>Bcl7a</i>	1,117274289	1,125188227	1,260152044	1,062909634	1,300547338
<i>Uggt1</i>	1,0787931	1,101064822	1,222692874	1,109057258	1,295509979
<i>Snx33</i>	1,05528203	1,359589452	1,330751804	1,182508164	1,358246693
<i>Rrp7a</i>	1,028443463	1,347331163	1,370363099	1,220185344	1,375918696
<i>Ap4m1</i>	0,994755273	1,356227479	1,334280959	1,10820529	1,456982587
<i>Acaa2</i>	0,964499067	1,242315885	1,360833771	1,084392301	1,523093122
<i>Rnf38</i>	0,919125121	1,196728012	1,378432285	1,150658223	1,456637112
<i>Ung</i>	1,026792043	1,217652768	1,318617243	1,021711474	1,353063405
<i>Pitpna</i>	1,12043358	1,250866787	1,33711816	1,064981808	1,350053371
<i>Arntl</i>	1,157380944	1,280572417	1,357461665	0,972131409	1,317929705
<i>Man2a2</i>	1,121371694	1,328859765	1,276584952	0,944922657	1,343775216
<i>Emilin1</i>	1,138520147	1,234256441	1,285605849	1,052419673	1,490258194
<i>BC004004</i>	1,238227195	1,220999579	1,27389079	1,054137104	1,432212385
<i>Atmin</i>	0,929999099	1,208100757	1,407156872	1,039097071	1,315320416
<i>Stoml1</i>	0,939115701	1,310656476	1,311719243	0,943307782	1,407181193
<i>Nfkb2</i>	1,038652327	1,303772653	1,27140789	0,940085037	1,314169689
<i>1110049F12Rik</i>	1,014227562	1,276899916	1,234919834	0,900084699	1,261980005
<i>Tspan1</i>	1,035747731	1,415012245	1,260264884	0,957663443	1,236506828
<i>Ggt5</i>	0,990572439	1,317288608	1,298847556	1,053050927	1,242199974
<i>P4htm</i>	1,024616924	1,289974412	1,302801469	1,03930382	1,268741732
<i>E330017L17Rik</i>	1,098284659	1,229895119	1,241213645	0,921739571	1,448034631
<i>Dazap2</i>	1,035663844	1,23478368	1,196507288	0,916642444	1,527707078
<i>Cdv3</i>	0,96391245	1,174437968	1,304367265	0,816862469	1,479393656
<i>Dyrk1b</i>	1,015586903	1,39335264	1,208422788	0,805507835	1,337324022
<i>1700096J18Rik</i>	1,140906237	1,180012533	1,161631611	0,993932287	1,508949134
<i>Gm88</i>	1,128513934	1,112003358	1,13138409	0,995447051	1,480929913
<i>Anapc11</i>	1,09966919	1,09956046	1,115767926	1,056676975	1,528198797
<i>Sorl1</i>	1,091990784	1,09693607	1,266144185	1,031537342	1,519843562
<i>Bcl7c</i>	1,232945391	1,127478613	1,122717745	0,918656049	1,531665063
<i>Ddn</i>	1,334070006	1,082698252	1,363730881	0,974410236	1,64858711
<i>Dbp</i>	1,303451451	1,233776092	1,377492091	0,891086493	1,642566513
<i>Ccdc88b</i>	1,287817594	1,26679733	1,351106312	1,175421215	1,707589324
<i>Ltc4s</i>	1,251030485	1,33313701	1,291189182	1,122474088	1,70591126
<i>Zfp319</i>	1,243757343	1,42565523	1,171050277	1,113324766	1,742568318
<i>4930427A07Rik</i>	1,514748917	1,228987727	1,11921685	0,695772288	1,361627571

<i>9330133014Rik</i>	1,487042536	1,165031548	1,255966477	0,754737226	1,329091987
<i>Gadd45b</i>	1,53476235	1,34537808	0,992135847	0,807430606	1,589566698
<i>Rel2</i>	1,265602197	1,360282494	1,055572948	0,728092701	1,346433116
<i>Casp6</i>	1,280177261	1,304904309	1,115366852	0,880734683	1,325597652
<i>Sftpc</i>	1,144986512	1,191555042	1,105563331	0,880476052	1,37856948
<i>1810021B22Rik</i>	1,154107088	1,236366918	1,093714435	0,889312848	1,342653855
<i>Prrt3</i>	1,357437441	1,378798912	1,027578176	0,972035236	1,186349671
<i>Zfp358</i>	1,359833904	1,40913545	1,161168436	0,878002364	1,142968549
<i>1600029D21Rik</i>	1,312228888	1,308064942	1,160809779	1,300306652	1,090380811
<i>Prickle1</i>	1,243583306	1,327065971	1,181370546	1,288068501	1,117485736
<i>LOC622124</i>	1,257490856	1,358912704	1,114375	1,354753671	1,079626268
<i>Padi1</i>	1,152088667	1,267356128	1,125217822	1,383716656	1,152952259
<i>Phldb1</i>	1,270498308	1,348097167	1,140081213	1,446889043	1,278352916
<i>Tram2</i>	1,257847444	1,400490376	1,345855156	1,299186997	1,242254053
<i>Zfp365</i>	1,268331909	1,446642667	1,284633668	1,337307924	1,186788222
<i>Etv6</i>	1,135619402	1,448484455	1,24334412	1,324973923	1,281445727
<i>Nudt4</i>	1,278615164	1,580459159	1,342965665	1,326532852	1,205656721
<i>2900005J15Rik</i>	1,253231864	1,542417387	1,316032469	1,250991198	1,278306991
<i>Atp6v0a1</i>	1,271717586	1,381619962	1,275832881	1,245556361	1,339573494
<i>Nudcd3</i>	1,303664352	1,418321209	1,346855823	1,167215884	1,304934932
<i>Cd2bp2</i>	1,329846338	1,36640183	1,28936942	1,222495807	1,468339311
<i>Trabd</i>	1,143840283	1,293157716	1,122007055	1,164674513	1,379725433
<i>Wdr81</i>	1,17049743	1,315377197	1,16038208	1,197993764	1,411289914
<i>St3gal6</i>	1,099832152	1,384256358	1,167269499	1,179369382	1,34524755
<i>Prr14</i>	1,261307349	1,409568137	1,133230628	1,224241363	1,324988051
<i>Rab26</i>	1,42188036	1,444963687	1,092842451	1,163057871	1,478495738
<i>Zfyve21</i>	1,347620857	1,327893438	1,120577182	1,072966947	1,369409974
<i>Ubttd1</i>	1,112696311	1,405052335	1,40246545	1,092886055	1,159174927
<i>Slc35e3</i>	1,094684963	1,370049056	1,381265523	1,081622858	1,211504833
<i>Lamb3</i>	1,134438239	1,394047078	1,283595494	1,098621129	1,317698129
<i>Pdcd1</i>	1,224384541	1,366894477	1,479568301	1,262679209	1,217299323
<i>Mef2b</i>	1,286850638	1,335845711	1,486396947	1,24741949	1,307224918
<i>Wdr63</i>	1,307375434	1,311637179	1,45905086	1,115108393	1,246657653
<i>Ssbp2</i>	1,349878053	1,281137003	1,314287885	1,144732222	1,196657932
<i>Itpr2</i>	1,313938971	1,245261089	1,21024344	1,162511711	1,190979492
<i>Gm15545</i>	1,298746762	1,325931989	1,230740927	1,120963764	1,291308401
<i>Zfp771</i>	1,241421022	1,217697183	1,295523303	1,062559536	1,276196505
<i>Cnnm4</i>	1,248226385	1,229408732	1,294112458	1,020792294	1,288395797
<i>D18Ert653e</i>	1,290753474	1,240304945	1,357217831	1,11582914	1,349974464
<i>Zfp704</i>	1,253836217	1,243668795	1,284702665	1,124881276	1,086318009
<i>Pdp1</i>	1,254841924	1,297902809	1,3263784	1,13299972	1,070553701
<i>Ralgps2</i>	1,204326006	1,317769526	1,323673527	1,148181355	1,198499954
<i>Zpbp2</i>	1,188029847	1,313365157	1,325405251	1,314490733	1,178966357
<i>Nod2</i>	1,116748451	1,284943758	1,338848876	1,273651954	1,139991598
<i>Sav1</i>	1,123124242	1,142665454	1,352610636	1,185083861	1,151004042
<i>Al314976</i>	1,047791284	1,229581207	1,399949264	1,206523449	1,138071822
<i>Rab33b</i>	1,144623084	1,175016745	1,34469274	1,178212911	1,026056471
<i>Smad1</i>	1,132157211	1,288102347	1,394358325	1,27948514	1,331891861
<i>Mrpl2</i>	1,215002133	1,26946371	1,361878818	1,373161826	1,332551277
<i>4933433H22Rik</i>	1,218305631	1,259963875	1,455782186	1,248327893	1,378708936
<i>Iah1</i>	1,173316522	1,204951269	1,437909032	1,242012391	1,414545631

<i>Cat</i>	1,307079724	1,254806146	1,370879106	1,321269746	1,338599296
<i>Lsr</i>	1,341372938	1,223266492	1,339307561	1,234024488	1,333000828
<i>Carkd</i>	1,261810973	1,19772	1,341250364	1,279656431	1,234274465
<i>Phf17</i>	1,134407887	1,315356221	1,286746702	1,208578194	1,307514586
<i>Gabpb2</i>	1,183511683	1,261948024	1,260023782	1,265152397	1,290910059
<i>Parvg</i>	1,131626298	1,211872943	1,311747736	1,202119834	1,29688718
<i>6720401G13Rik</i>	1,155956888	1,263869684	1,231635077	1,24655128	1,439823978
<i>Gdf3</i>	1,161369135	1,27933689	1,246230873	1,147597741	1,403302949
<i>Smagp</i>	1,273996555	1,151609806	1,237951339	1,195464216	1,31000003
<i>St6galnac5</i>	1,27035995	1,195181977	1,217274969	1,282044385	1,348204358
<i>Chrne</i>	1,192493117	1,113490664	1,246498487	1,285194433	1,343852153
<i>4930594C11Rik</i>	1,205839474	1,140943237	1,265466824	1,179368263	1,412078025
<i>Acta2</i>	1,203961355	1,165257742	1,276014525	1,253456941	1,437640397
<i>Apba3</i>	1,212236387	1,195552278	1,325608622	1,181841737	1,366935757
<i>Atp10a</i>	1,625181416	1,478024505	1,300964156	1,265244473	1,139911761
<i>4930415O20Rik</i>	1,667667647	1,423935513	1,318925464	1,376424216	1,163941071
<i>Agpat2</i>	1,601165795	1,27173761	1,405222796	1,219306132	1,100847932
<i>Mtmr11</i>	1,584366578	1,368558254	1,421594164	1,262082715	1,165356983
<i>6330406I15Rik</i>	1,584818289	1,348748763	1,468120754	1,314750912	1,293273534
<i>Klf10</i>	1,47120277	1,385839112	1,511367381	1,353546108	1,310767414
<i>Cstf1</i>	1,578077019	1,429840089	1,366475884	1,309434381	1,376683946
<i>Elfn2</i>	1,481676517	1,304191372	1,374838275	1,223970873	1,267116155
<i>Isoc1</i>	1,486479963	1,292555717	1,363829897	1,358551072	1,273969851
<i>Hexim1</i>	1,420872963	1,475745994	1,48479309	1,270993825	1,092338769
<i>Spcs1</i>	1,552575615	1,500039242	1,497190471	1,213047608	1,153405025
<i>C030034L19Rik</i>	1,475520178	1,465135633	1,449131017	1,022918607	1,156364926
<i>Xpc</i>	1,502449085	1,465364929	1,483215296	1,111982196	1,210606502
<i>Cd164I2</i>	1,352443298	1,355927129	1,40462199	1,250457535	1,038296932
<i>Cln6</i>	1,48712374	1,385912107	1,399620574	1,256887689	1,057393774
<i>Bcl6</i>	1,439363471	1,467979849	1,294512968	1,110601194	0,957990067
<i>Rnf169</i>	1,48729752	1,278370048	1,251715836	1,116793599	1,112420676
<i>Usp2</i>	1,452407162	1,203971983	1,202811969	1,12410854	1,202706577
<i>Kcnab3</i>	1,473121624	1,32563316	1,173586047	1,001011503	1,159995022
<i>Srp68</i>	1,575552069	1,272592053	1,28474521	1,120659449	1,343195871
<i>Rpf2</i>	1,539991216	1,269787751	1,204056899	1,194920344	1,323688961
<i>Zfp39</i>	1,59123602	1,398822306	1,375664926	1,146216618	1,243046033
<i>Gm20139</i>	1,517207232	1,431904749	1,237502809	1,186079872	1,207193263
<i>Dclre1b</i>	1,620419679	1,528138631	1,211756807	1,172360332	1,343157926
<i>Tpra1</i>	1,508151183	1,276426578	1,387283601	0,9751678	1,223022503
<i>Nfkbie</i>	1,425762171	1,212224731	1,391179719	1,058354133	1,318500584
<i>Shmt2</i>	1,471799415	1,192732384	1,487536348	1,134169204	1,386052039
<i>Gpr56</i>	1,508512419	1,252227256	1,435833534	1,072252346	1,471574996
<i>Ankrd23</i>	1,428327461	1,137529545	1,197990565	1,00101166	1,290859424
<i>Sin3b</i>	1,409958775	1,109876743	1,220718057	1,071508533	1,395609352
<i>Mgat1</i>	1,393478535	1,232427227	1,243039754	1,120501053	1,364815033
<i>Helz</i>	1,434415735	1,248475291	1,24181952	1,082902869	1,284103069
<i>2810410L24Rik</i>	1,522261444	1,231257458	1,249975758	0,928164275	1,432369921
<i>AdamtsI2</i>	1,594966048	1,309566856	1,703577111	0,696273531	1,190314561
<i>Marcks</i>	1,356753321	1,117468021	1,65485622	0,775612848	1,047470205
<i>Hpdl</i>	1,322256763	1,318518741	1,755745998	1,111651468	1,313514783
<i>Mn1</i>	1,406177894	1,393679043	1,581527341	1,132314682	1,315393269

<i>Zdhhc12</i>	1,223317237	1,27536484	1,661923981	1,10550834	1,074520228
<i>4921531C22Rik</i>	1,220447161	1,550936133	1,460120627	0,997785585	1,147377462
<i>Gm15915</i>	1,227581035	1,703697996	1,474291081	0,823868145	1,032090735
<i>2300002M23Rik</i>	1,450638285	1,624511653	1,419026986	0,704441665	1,254125467
<i>Slc25a11</i>	1,016547599	1,461299438	1,531223188	0,760335348	1,266888703
<i>H1f0</i>	1,14150096	1,471531373	1,45189266	0,836747079	1,36551247

Supplementary Table 7. List of the genes depicted in Figure 5c. The genes are separated based on the pattern of changes in intragenic 5hmC and gene expression they show.

CD4 SP vs. DP (left panel)

SAME	OPPOSITE
Aqp11	3930402G23Rik
Mllt6	Lgals7
Ikzf4	LOC100859962
Gcnt7	A430107P09Rik
Cxcr4	2310001H17Rik
Tmprss4	Ly6c2
Id2	Ppp1r3e
2010001M09Rik	Gm1337
A430093F15Rik	Ggn
Galk1	Tbrg3
H2-Q1	E030018B13Rik
Osm	4931406H21Rik
Tgfbr2	
Cela1	
2210020M01Rik	
Cd274	
9330175E14Rik	
Skil	
Rgs3	
Lgals1	
Bcl2l1	
4930572J05Rik	
S1pr1	
Ptgir	
Rapgef3	
Dusp6	
Fabp4	
P2rx1	
Nron	
Ccr4	
Ccr7	
Ccr8	
Isg15	
A430035B10Rik	
Trp53i11	
Esrp2	
BC024582	
Rorc	
Ugcg	
Ng23	

CD8 SP vs. DP (right panel)

SAME	OPPOSITE
Aqp11	Lgals7
Mllt6	Ifitm3
Gm10640	Cd52
Ikzf4	Hoxa4
Gcnt7	Ly6c2
Kcnip2	Ppp1r3e
Tmprss4	6530439I21
Id2	Tmem88
Plekho1	Ggn
H2-Q5	Gng3
H2-Q4	Tbrg3
H2-Q1	Ltb
Osm	B230319C09Rik
Tgfbr2	Gm10390
Cela1	4930542H20Rik
2210020M01	E030018B13Rik
Cd274	1700125G22Rik
Rarg	4933427E11Rik
9330175E14Rik	
Vasp	
Fam113b	
Rgs3	
Nfkbiz	
Bcl2l1	
S1pr1	
Dtx1	
Rapgef3	
Serpinf1	
P2rx1	
Nron	
Gramd4	
Ccr7	
Ccr8	
Isg15	
Tpst2	
A430035B10Rik	
Bcl9l	
Gm5547	
Esrp2	
BC024582	

Gpr152
Mapk11
Adipoq
H2-T24
Cytip
Neurl3
Mettl7b
Rab44
Gm13546
Klf2
Slurp1
Nr4a1
Mad1l1
l730030J21Rik
Gpr146
9430014N10Rik
Lingo4
Foxo1
Amigo2
Map3k6
2310015A10Rik
Fstl3
Il27ra
Fam102a
Chchd10
Rln3
A630055G03Rik
Dntt
Prodh
4732490B19Rik
Tubb2a
Tubb2b
Arrdc5
Ecm1
Bcl3
Cd8b1
Xrra1
Ccadc153
2010016l18Rik
Leprel4
Gm11541
A930003A15Rik
Spc24
Tuba4a
Ctsw
Ttc16

Rorc
Rhof
Ng23
Mapk11
Neurl3
Klf2
Slurp1
Nr4a1
Mad1l1
l730030J21Rik
Gpr146
Siglec15
Tdgf1
Foxo1
Amigo2
Prps1l1
Fstl3
4931403G20Rik
Il27ra
Fam102a
Chchd10
Rln3
Prodh
4732490B19Rik
Tubb2a
Tubb2b
C1qtnf6
Arrdc5
Stra8
Bcl3
Xrra1
Aif1
Ccadc153
Serinc5
2010016l18Rik
Leprel4
Tnfrsf1b
A930003A15Rik
Gpr114
Tuba4a
AW112010
Ctsw
BB031773
0610005C13Rik
Cd1d2
B2m

BB031773
0610005C13Rik
Plekhhf1
B2m
Fbxl12
Gm12250
1700019L03Rik
Egr2
Egr3
Egr1
Slc6a19
Thy1
Endou
Tifab
Tmem52
Agtrap
Slc37a2
Zfp36l1
Syt13
2700046G09Rik
Lfng
Rcan3
B230118H07Rik
Phospho1
Tnfrsf4
Cd8a
Ptcra
Bst1
C2cd4d
Tmem121
4930417O13Rik
Il6ra
Gm11648
1700064M15Rik
1600002D24Rik
Fam166b
Galnt6
Gfi1
Arsi
B4galnt1
Anxa2
Pafah1b3
Gm10345
Enc1
Bach2
Enpp7

Fbxl12
Gm12250
1700019L03Rik
Cotl1
Ncf1
Egr2
Egr3
Egr1
Slc6a19
Cldnd2
Rps6ka1
Endou
Tmem52
Agtrap
Slc37a2
Zfp36l1
Syt13
Lfng
Fam26f
Clcf1
B230118H07Rik
Stat1
Tnfrsf9
Slc26a10
Cd82
Ptcra
C2cd4d
Tmem121
4930417O13Rik
Il6ra
Ccnd2
Gm11648
1600002D24Rik
Clec2d
Galnt6
Cyth4
Gfi1
Arsi
Stk10
Capn11
B4galnt1
Anxa2
Sema4a
Cd79a
Ptms
Gm10345

Qprt
1810019D21Rik
Zfp281
Spsb2
Spsb1
Cdca7
Plk3
St3gal2
Tdrd5
Ccgc42b
Gpr65
D830046C22Rik
Cldn4
G630016D24Rik
Gtdc2
Gm5083
Cd69
8430423G03Rik
Gtf2h4
St6gal1
Fam46c
Tnfrsf25
5730422E09Rik
Tube1
Itgb3
Stk17b
Nab2
Smad7
Kbtbd11
Gm525
Gpr183
Apol9b
Cnn2
Rtp4
Gm15708
Grb7
Colq
B3gnt8
Gpr18
Tle6
4933422H20Rik
Plxnd1
Fam43a
Prss57
Tnfaip8l2
1700030A11Rik

Enc1
Enpp7
Qprt
Ets2
Itgb7
1810019D21Rik
Spsb1
Cdca7
Atp1b3
Fam65b
Ccgc42b
Gpr65
Ldhd
Cldn4
G630016D24Rik
S100a2
Gtdc2
Cd69
Gtf2h4
Orai1
Cx3cr1
BC057022
Fam46c
Tnfrsf25
Hcst
Gphb5
5730422E09Rik
Tube1
Itgb3
Stk17b
Nab2
Smad7
Kbtbd11
Gm525
Apol9b
Cnn2
Rasa3
Rtp4
D930028M14Rik
Colq
B3gnt8
Gpr18
Tle6
Plxnd1
Ccgc102a
Prss57

Shisa5
Paqr6
Il17rb
Insl5
Jdp2
Itm2a
Rag2
Rag1
Hist1h2bp
Tmem151b
Ptpn14
Xylt2
Pglyrp2
Bcl2
Ilvbl
Gimap8
Gimap4
Gimap6
Gimap3
Cd5
Cd7
Gm16617
Tctex1d1
Capn3
Zdhhc8
Ptrh1
Xrcc6
BC021614
Pik3cd
4932438H23Rik
F2
Slfn1
2310007L24Rik
Asb2
Irf1
Irf9
Vim
5430425J12Rik
Fyn
Ldlrad3
Sema7a
4930568K20Rik
Gpr162
Art1
Zbtb7b
Samhd1

Tnfaip8l2
1700030A11Rik
Shisa5
Flt3l
Paqr6
Tmem20
Grifin
Rag2
Rag1
Hist1h2bp
Tmem151b
Bcl2
Ilvbl
Gimap8
Gimap4
Gimap3
Atn1
Cd4
Cd5
Cd7
6430527G18Rik
Tctex1d1
Capn3
Tesc
Ptrh1
Xrcc6
BC021614
Pik3cd
Arid5a
4932438H23Rik
Gm11346
Slfn1
2310007L24Rik
Scml4
Runx3
Irf1
Irf7
Irf9
Vim
Sp100
Sema7a
4930568K20Rik
Gpr162
Glipr2
Lgals3bp
Art1

Supplementary Table 8. List of all the enriched/ depleted GO categories and immune-related GO categories among clusters depicted in Figure 5a. The log10 adjusted p-values are listed.

All the enriched GO categories

	Cluster 1		Cluster 2		Cluster 4		Cluster 6	
	log10		log10		log10		log10	
	adj. p-	Enriched (1),	adj. p-	Enriched (1),	adj. p-	Enriched (1),	adj. p-	Enriched (1),
	value	depleted (-1)	value	depleted (-1)	value	depleted (-1)	value	depleted (-1)
T cell differentiation in the thymus	-4,3279	1	-2,3982	1	0	0	0	0
T cell differentiation	-3,6328	1	-7,6655	1	0	0	0	0
T cell activation	-3,4307	1	-14,227	1	0	0	-1,4049	1
hemopoietic or lymphoid organ development	-3,4307	1	-9,5935	1	0	0	-1,7238	1
lymphocyte differentiation	-3,3074	1	-10,231	1	0	0	-1,6415	1
immune system development	-3,3034	1	-10,611	1	0	0	-1,7945	1
positive regulation of leukocyte mediated immunity	-2,5732	1	0	0	0	0	0	0
positive regulation of lymphocyte mediated immunity	-2,5732	1	0	0	0	0	0	0
hemopoiesis	-2,477	1	-10,057	1	0	0	-1,8885	1
positive regulation of leukocyte mediated cytotoxicity	-2,4468	1	0	0	0	0	-1,7334	1
lymphocyte activation	-2,4265	1	-16,365	1	0	0	-2,1007	1
regulation of interleukin-2 biosynthetic process	-2,4265	1	-2,1499	1	0	0	0	0
positive regulation of cell killing	-2,4265	1	0	0	0	0	-1,5482	1
leukocyte differentiation	-2,3826	1	-11,08	1	0	0	-1,4147	1
thymic T cell selection	-2,3451	1	-2,708	1	0	0	0	0
interleukin-2 biosynthetic process	-2,3451	1	-1,9031	1	0	0	0	0
anchored to membrane	-2,1821	1	0	0	0	0	-1,4049	-1
cell activation	-2,1269	1	-16,126	1	0	0	-2,2908	1
T cell selection	-2,1269	1	-3,8745	1	0	0	0	0
regulation of cytokine biosynthetic process	-2,1269	1	-2,3915	1	0	0	0	0
regulation of interleukin-2 production	-2,1269	1	-2,2057	1	0	0	0	0
positive regulation of cytokine biosynthetic process	-2,1269	1	-2,0535	1	0	0	0	0
regulation of leukocyte mediated cytotoxicity	-2,1269	1	0	0	0	0	-1,8039	1
regulation of cell killing	-2,1269	1	0	0	0	0	-1,648	1
regulation of NK T cell activation	-2,1269	1	0	0	0	0	0	0
positive regulation of NK T cell activation	-2,1269	1	0	0	0	0	0	0
NK T cell activation	-2,1269	1	0	0	0	0	0	0
positive regulation of immune effector process	-2,1269	1	0	0	0	0	0	0

leukocyte activation	-2,0971	1	-16,222	1	0	0	-2,3256	1
positive regulation of interleukin-2 biosynthetic process	-2,0971	1	-3,0661	1	0	0	0	0
V(D)J recombination	-2,0971	1	0	0	0	0	0	0
positive regulation of apoptosis	-1,9638	1	-6,8794	1	0	0	-1,7944	1
cell proliferation	-1,9397	1	-7,0035	1	0	0	0	0
positive regulation of programmed cell death	-1,9397	1	-6,7696	1	0	0	-1,8726	1
interleukin-2 production	-1,9397	1	-1,8398	1	0	0	0	0
regulation of cell proliferation	-1,9256	1	-7,4949	1	0	0	0	0
cytokine production	-1,9256	1	-3,9288	1	0	0	0	0
positive regulation of cell death	-1,9209	1	-6,5346	1	0	0	-1,7463	1
regulation of lymphocyte mediated immunity	-1,9209	1	-1,5508	1	0	0	-2,5053	1
lymphocyte apoptosis	-1,9209	1	0	0	0	0	-1,8296	1
negative regulation of cell proliferation	-1,9082	1	-2,6517	1	0	0	0	0
cytokine biosynthetic process	-1,8893	1	-2,7838	1	0	0	0	0
cytokine metabolic process	-1,8893	1	-2,7348	1	0	0	0	0
lymphocyte mediated immunity	-1,8893	1	-2,1593	1	0	0	-1,6897	1
leukocyte mediated cytotoxicity	-1,8893	1	-1,5397	1	0	0	-1,352	1
interleukin-4 biosynthetic process	-1,8893	1	0	0	0	0	0	0
negative regulation of thymocyte apoptosis	-1,8893	1	0	0	0	0	0	0
positive regulation of interleukin-4 biosynthetic process	-1,8893	1	0	0	0	0	0	0
pre-B cell allelic exclusion	-1,8893	1	0	0	0	0	0	0
regulation of interleukin-4 biosynthetic process	-1,8893	1	0	0	0	0	0	0
transformed cell apoptosis	-1,8893	1	0	0	0	0	0	0
negative regulation of nerve growth factor receptor signaling pathway	-1,8893	1	0	0	0	0	0	0
immune system process	-1,7996	1	-17,807	1	0	0	-2,1484	1
regulation of leukocyte mediated immunity	-1,7704	1	-1,3089	1	0	0	-1,9967	1
positive regulation of natural killer cell mediated cytotoxicity	-1,7175	1	0	0	0	0	0	0
positive regulation of natural killer cell mediated immunity	-1,7175	1	0	0	0	0	0	0
T cell apoptosis	-1,7175	1	0	0	0	0	0	0
regulation of nerve growth factor receptor signaling pathway	-1,647	1	0	0	0	0	0	0
regulation of lymphocyte differentiation	-1,6012	1	-2,5111	1	0	0	0	0
regulation of lymphocyte activation	-1,5401	1	-7,3045	1	-1,3788	1	0	0
organ development	-1,5401	1	-6,7696	1	0	0	0	0

cell killing	-1,5401	1	-2,3915	1	0	0	-1,6896	1
regulation of interferon-gamma production	-1,5401	1	0	0	0	0	0	0
leukocyte mediated immunity	-1,5378	1	-2,4313	1	0	0	0	0
regulation of apoptosis	-1,5322	1	-6,4012	1	0	0	-1,3974	1
regulation of cytokine production	-1,513	1	-3,5351	1	0	0	0	0
regulation of programmed cell death	-1,5096	1	-6,4737	1	0	0	-1,3809	1
lipoprotein catabolic process	-1,5096	1	0	0	0	0	0	0
thymocyte apoptosis	-1,5096	1	0	0	0	0	0	0
positive regulation of interferon- gamma biosynthetic process	-1,5096	1	0	0	0	0	0	0
regulation of thymocyte apoptosis	-1,5096	1	0	0	0	0	0	0
pro-B cell differentiation	-1,5096	1	0	0	0	0	0	0
induction of apoptosis	-1,4741	1	-5,8539	1	0	0	-1,4049	1
interferon-gamma production	-1,4741	1	0	0	0	0	0	0
induction of programmed cell death	-1,464	1	-5,8041	1	0	0	-1,5613	1
B cell activation	-1,4624	1	-3,8594	1	0	0	0	0
nicotinamide nucleotide metabolic process	-1,4624	1	0	0	0	0	0	0
lymph node development	-1,4624	1	0	0	0	0	0	0
mitochondrial transport	-1,4624	1	0	0	0	0	0	0
regulation of cell death	-1,4607	1	-6,4634	1	0	0	-1,4834	1
pyridine nucleotide metabolic process	-1,434	1	0	0	0	0	0	0
calcium- and calmodulin- dependent protein kinase complex	-1,4208	1	0	0	0	0	0	0
tumor necrosis factor receptor superfamily binding	-1,4208	1	0	0	0	0	0	0
immature B cell differentiation	-1,4208	1	0	0	0	0	0	0
pre-B cell differentiation	-1,4208	1	0	0	0	0	0	0
negative regulation of T cell apoptosis	-1,4208	1	0	0	0	0	0	0
regulation of leukocyte activation	-1,4106	1	-6,342	1	0	0	0	0
T cell homeostasis	-1,3882	1	0	0	0	0	0	0
regulation of natural killer cell mediated immunity	-1,3882	1	0	0	0	0	0	0
regulation of natural killer cell mediated cytotoxicity	-1,3882	1	0	0	0	0	0	0
immune effector process	-1,3678	1	-2,4653	1	0	0	-1,6083	1
regulation of cell activation	-1,3414	1	-6,0022	1	0	0	0	0
molecular adaptor activity	-1,3414	1	-1,4312	1	0	0	0	0
system development	-1,3361	1	-7,8356	1	0	0	0	0
gamma-delta T cell differentiation	-1,3287	1	0	0	0	0	0	0
regulation of interferon-gamma biosynthetic process	-1,3287	1	0	0	0	0	0	0

positive regulation of myoblast differentiation	-1,3287	1	0	0	0	0	0	0
gamma-delta T cell activation	-1,3287	1	0	0	0	0	0	0
regulation of immune effector process	-1,3059	1	-1,7441	1	0	0	0	0
regulation of cellular metabolic process	0	0	-18,155	1	0	0	-18,301	1
cellular macromolecule metabolic process	0	0	-17,839	1	-10,73	1	-37,021	1
protein binding	0	0	-17,827	1	-1,5242	1	-21,428	1
regulation of nucleobase, nucleoside, nucleotide and nucleic acid metabolic process	0	0	-16,893	1	0	0	-13,928	1
regulation of nitrogen compound metabolic process	0	0	-16,893	1	0	0	-13,818	1
intracellular	0	0	-16,71	1	-29,676	1	-53,987	1
regulation of cellular biosynthetic process	0	0	-16,71	1	0	0	-14,588	1
regulation of macromolecule metabolic process	0	0	-16,365	1	0	0	-19,116	1
regulation of macromolecule biosynthetic process	0	0	-16,365	1	0	0	-16,646	1
regulation of biosynthetic process	0	0	-16,365	1	0	0	-14,117	1
intracellular signaling pathway	0	0	-16,365	1	0	0	-5,5735	1
regulation of metabolic process	0	0	-16,222	1	0	0	-18,921	1
regulation of gene expression	0	0	-16,194	1	0	0	-18,118	1
regulation of primary metabolic process	0	0	-15,921	1	0	0	-17,772	1
regulation of transcription	0	0	-15,889	1	0	0	-13,699	1
macromolecule biosynthetic process	0	0	-14,936	1	-2,8636	1	-27,052	1
transcription	0	0	-14,66	1	0	0	-15	1
positive regulation of biological process	0	0	-14,599	1	0	0	-1,8125	1
cellular biosynthetic process	0	0	-14,521	1	-4,1238	1	-25,377	1
positive regulation of cellular process	0	0	-14,503	1	0	0	-1,8604	1
gene expression	0	0	-14,45	1	-3,8727	1	-30,955	1
intracellular part	0	0	-14,338	1	-29,644	1	-52,492	1
cellular macromolecule biosynthetic process	0	0	-14,312	1	-2,4631	1	-27,587	1
cellular metabolic process	0	0	-14,084	1	-15,382	1	-37,924	1
biosynthetic process	0	0	-13,91	1	-4,1586	1	-23,79	1
macromolecule metabolic process	0	0	-12,939	1	-10,208	1	-31,089	1
nucleic acid metabolic process	0	0	-12,654	1	-4,1238	1	-19,635	1
nucleus	0	0	-12,535	1	-9,8729	1	-27,738	1
organelle	0	0	-12,41	1	-23,604	1	-44,523	1
intracellular organelle	0	0	-12,108	1	-23,854	1	-44,288	1
nucleobase, nucleoside, nucleotide and nucleic acid metabolic process	0	0	-12,047	1	-5,0458	1	-21,09	1

primary metabolic process	0	0	-10,821	1	-12,644	1	-29,343	1
cellular nitrogen compound								
metabolic process	0	0	-10,564	1	-5,0711	1	-20,178	1
binding	0	0	-10,55	1	-7,0625	1	-25,384	1
intracellular signal transduction	0	0	-10,55	1	0	0	-2,8996	1
membrane-bounded organelle	0	0	-10,509	1	-26,57	1	-44,62	1
nitrogen compound metabolic								
process	0	0	-10,439	1	-5,0458	1	-19,413	1
transcription regulator activity	0	0	-10,431	1	0	0	-3,0312	1
regulation of RNA metabolic								
process	0	0	-10,318	1	0	0	-3,0569	1
intracellular membrane-								
bounded organelle	0	0	-10,123	1	-26,209	1	-44,545	1
RNA metabolic process	0	0	-9,9281	1	-2,2083	1	-7,2588	1
cytoplasm	0	0	-9,8182	1	-23,848	1	-32,666	1
regulation of transcription, DNA-								
dependent	0	0	-9,58	1	0	0	-2,6366	1
immunological synapse	0	0	-8,9586	1	0	0	0	0
transcription, DNA-dependent	0	0	-8,6615	1	0	0	-3,0334	1
regulation of immune system								
process	0	0	-8,5901	1	0	0	-2,0957	1
RNA biosynthetic process	0	0	-8,58	1	0	0	-2,9591	1
metabolic process	0	0	-8,382	1	-12,87	1	-30,381	1
positive regulation of cellular								
biosynthetic process	0	0	-7,9666	1	0	0	-2,5386	1
regulation of signaling pathway	0	0	-7,9666	1	0	0	-1,6362	1
regulation of transcription from								
RNA polymerase II promoter	0	0	-7,8013	1	0	0	-2,7726	1
regulation of multicellular								
organismal process	0	0	-7,7747	1	0	0	0	0
regulation of T cell activation	0	0	-7,7399	1	0	0	0	0
positive regulation of nitrogen								
compound metabolic process	0	0	-7,7352	1	0	0	-2,3216	1
programmed cell death	0	0	-7,6655	1	0	0	-2,4763	1
positive regulation of								
biosynthetic process	0	0	-7,6655	1	0	0	-2,4763	1
regulation of cellular process	0	0	-7,6402	1	-3,8026	-1	0	0
apoptosis	0	0	-7,6364	1	0	0	-2,2908	1
positive regulation of								
nucleobase, nucleoside,								
nucleotide and nucleic acid								
metabolic process	0	0	-7,6216	1	0	0	-2,2741	1
negative regulation of biological								
process	0	0	-7,5058	1	0	0	-3,8066	1
cell death	0	0	-7,4949	1	0	0	-2,3232	1
negative regulation of cellular								
process	0	0	-7,4921	1	0	0	-3,7002	1
death	0	0	-7,382	1	0	0	-2,2542	1
regulation of developmental								
process	0	0	-7,3536	1	0	0	0	0
positive regulation of cellular								
metabolic process	0	0	-7,2765	1	0	0	-4,262	1

transcription from RNA polymerase II promoter	0	0	-7,118	1	0	0	-3,5981	1
cell part	0	0	-7,1051	1	-5,9957	1	-11,376	1
cell	0	0	-7,1007	1	-5,9957	1	-11,365	1
developmental process	0	0	-7,0357	1	0	0	0	0
regulation of biological process	0	0	-7,0128	1	-2,7202	-1	0	0
positive regulation of metabolic process	0	0	-6,9281	1	0	0	-4,0297	1
positive regulation of macromolecule metabolic process	0	0	-6,9136	1	0	0	-4,6819	1
transcription factor activity	0	0	-6,9136	1	0	0	0	0
phosphate metabolic process	0	0	-6,8477	1	0	0	-4,7905	1
phosphorus metabolic process	0	0	-6,8097	1	0	0	-4,7423	1
biological regulation	0	0	-6,8013	1	-2,2346	-1	0	0
positive regulation of macromolecule biosynthetic process	0	0	-6,7595	1	0	0	-2,7399	1
multicellular organismal development	0	0	-6,6055	1	0	0	0	0
anatomical structure development	0	0	-6,5935	1	0	0	0	0
positive regulation of T cell activation	0	0	-6,5607	1	-1,4457	1	0	0
positive regulation of transcription	0	0	-6,5157	1	0	0	-2,2253	1
negative regulation of cellular biosynthetic process	0	0	-6,5157	1	0	0	-2,1496	1
positive regulation of gene expression	0	0	-6,4634	1	0	0	-2,4755	1
negative regulation of transcription	0	0	-6,4425	1	0	0	-2,0453	1
positive regulation of immune system process	0	0	-6,4012	1	0	0	-1,9232	1
negative regulation of nitrogen compound metabolic process	0	0	-6,3224	1	0	0	-2,298	1
negative regulation of biosynthetic process	0	0	-6,3179	1	0	0	-2,0013	1
negative regulation of cellular metabolic process	0	0	-6,3134	1	0	0	-3,1826	1
cellular developmental process	0	0	-6,3072	1	0	0	-1,3027	-1
cell differentiation	0	0	-6,2457	1	0	0	0	0
negative regulation of macromolecule biosynthetic process	0	0	-6,2248	1	0	0	-1,8431	1
negative regulation of gene expression	0	0	-6,1624	1	0	0	-3,1182	1
positive regulation of lymphocyte activation	0	0	-5,9586	1	-1,3036	1	0	0
small GTPase mediated signal transduction	0	0	-5,9208	1	0	0	-2,8501	1

negative regulation of nucleobase, nucleoside, nucleotide and nucleic acid metabolic process	0	0	-5,8539	1	0	0	-2,1638	1
cellular process	0	0	-5,821	1	0	0	-9,0894	1
actin cytoskeleton organization	0	0	-5,7959	1	0	0	0	0
negative regulation of metabolic process	0	0	-5,7077	1	0	0	-3,7154	1
actin filament-based process	0	0	-5,7077	1	0	0	0	0
regulation of cellular component movement	0	0	-5,6308	1	0	0	0	0
negative regulation of macromolecule metabolic process	0	0	-5,6234	1	0	0	-3,8564	1
positive regulation of leukocyte activation	0	0	-5,5171	1	-1,3433	1	0	0
positive regulation of cell proliferation	0	0	-5,4572	1	0	0	0	0
cellular protein metabolic process	0	0	-5,3862	1	-7,382	1	-18,866	1
regulation of locomotion	0	0	-5,3862	1	0	0	0	0
regulation of cell migration	0	0	-5,3851	1	0	0	0	0
regulation of signal transduction	0	0	-5,2916	1	0	0	-2,2483	1
transcription repressor activity	0	0	-5,2807	1	0	0	-2,1129	1
positive regulation of cell activation	0	0	-5,1694	1	-1,4169	1	0	0
regulation of signaling process	0	0	-5,1013	1	0	0	-2,0957	1
intracellular protein kinase cascade	0	0	-5,0926	1	0	0	-1,8125	1
signal transmission via phosphorylation event	0	0	-5,0926	1	0	0	-1,8125	1
protein modification process	0	0	-4,9066	1	-2,029	1	-8,2644	1
phosphorylation	0	0	-4,7825	1	0	0	-4,2104	1
T cell proliferation	0	0	-4,7545	1	0	0	0	0
actin filament organization	0	0	-4,7144	1	0	0	0	0
chromatin binding	0	0	-4,699	1	0	0	-2,3803	1
negative regulation of transcription, DNA-dependent	0	0	-4,6861	1	0	0	-1,4177	1
alpha-beta T cell activation	0	0	-4,6234	1	0	0	0	0
cytoskeleton organization	0	0	-4,5935	1	0	0	0	0
negative regulation of RNA metabolic process	0	0	-4,5918	1	0	0	-1,6601	1
post-translational protein modification	0	0	-4,5467	1	0	0	-7,2958	1
Ras protein signal transduction	0	0	-4,5114	1	0	0	0	0
regulation of cell differentiation	0	0	-4,4949	1	0	0	0	0
cell surface regulation of cell	0	0	-4,4547	1	0	0	0	0
communication	0	0	-4,3925	1	0	0	0	0
DNA binding	0	0	-4,3716	1	0	0	-6,699	1

negative regulation of transcription from RNA polymerase II promoter	0	0	-4,3152	1	0	0	0	0
positive regulation of developmental process	0	0	-4,3054	1	0	0	0	0
macromolecule modification	0	0	-4,279	1	-2,2321	1	-8,699	1
positive regulation of transcription from RNA polymerase II promoter	0	0	-4,2069	1	0	0	-1,7853	1
cytosol	0	0	-4,1904	1	0	0	-5,0039	1
mononuclear cell proliferation	0	0	-4,1506	1	0	0	-1,334	1
lymphocyte proliferation	0	0	-4,1506	1	0	0	-1,334	1
cytokine binding	0	0	-4,1226	1	0	0	0	0
alpha-beta T cell differentiation	0	0	-4,0799	1	0	0	0	0
positive regulation of transcription, DNA-dependent	0	0	-4,0259	1	0	0	-2,0798	1
leukocyte proliferation	0	0	-3,994	1	0	0	0	0
positive regulation of RNA metabolic process	0	0	-3,9518	1	0	0	-2,3216	1
protein amino acid phosphorylation	0	0	-3,9304	1	0	0	-2,739	1
regulation of response to stimulus	0	0	-3,9044	1	0	0	0	0
GTPase activity	0	0	-3,8477	1	0	0	0	0
external side of plasma membrane	0	0	-3,8298	1	0	0	0	0
T cell receptor complex	0	0	-3,7161	1	0	0	0	0
regulation of small GTPase mediated signal transduction	0	0	-3,714	1	0	0	0	0
MAP kinase tyrosine/serine/threonine phosphatase activity	0	0	-3,6884	1	0	0	0	0
regulation of T cell receptor signaling pathway	0	0	-3,6884	1	0	0	0	0
MAP kinase phosphatase activity	0	0	-3,6884	1	0	0	0	0
peptidyl-tyrosine phosphorylation	0	0	-3,6715	1	0	0	0	0
peptidyl-tyrosine modification	0	0	-3,6715	1	0	0	0	0
B cell differentiation	0	0	-3,6677	1	0	0	-1,4633	1
regulation of immune response	0	0	-3,6443	1	0	0	-2,4763	1
cytoskeletal protein binding	0	0	-3,6079	1	0	0	0	0
regulation of phosphorylation	0	0	-3,5954	1	0	0	0	0
T cell receptor signaling pathway	0	0	-3,5757	1	0	0	0	0
nucleic acid binding	0	0	-3,5692	1	-4,0168	1	-17,11	1
regulation of phosphate metabolic process	0	0	-3,528	1	0	0	0	0
regulation of phosphorus metabolic process	0	0	-3,528	1	0	0	0	0
regulation of myeloid cell differentiation	0	0	-3,5142	1	0	0	0	0
response to stimulus	0	0	-3,5092	1	0	0	0	0

cell migration	0	0	-3,5067	1	0	0	0	0
cellular component movement	0	0	-3,5035	1	0	0	0	0
regulation of molecular function	0	0	-3,4769	1	0	0	-1,7853	1
endosome	0	0	-3,326	1	0	0	0	0
regulation of catalytic activity	0	0	-3,3106	1	0	0	0	0
protein kinase binding	0	0	-3,3063	1	0	0	-1,8122	1
kinase binding	0	0	-3,2659	1	0	0	-1,9176	1
immune response-activating								
signal transduction	0	0	-3,2524	1	0	0	-1,9539	1
sequence-specific DNA binding	0	0	-3,2454	1	0	0	0	0
negative regulation of cell								
communication	0	0	-3,2297	1	0	0	0	0
positive regulation of T cell								
proliferation	0	0	-3,2284	1	0	0	0	0
regulation of antigen receptor-								
mediated signaling pathway	0	0	-3,2186	1	0	0	0	0
alpha-beta T cell receptor								
complex	0	0	-3,1469	1	0	0	0	0
regulation of T cell proliferation	0	0	-3,142	1	0	0	0	0
antigen receptor-mediated								
signaling pathway	0	0	-3,1309	1	0	0	-2,7911	1
response to stress	0	0	-3,1265	1	0	0	0	0
negative regulation of signaling								
pathway	0	0	-3,115	1	0	0	0	0
positive regulation of								
cytoskeleton organization	0	0	-3,1086	1	0	0	0	0
nucleoplasm	0	0	-3,0826	1	0	0	-7,2277	1
cellular component organization	0	0	-3,0728	1	-1,6419	1	-2,0473	1
regulation of actin filament-								
based process	0	0	-3,0674	1	0	0	0	0
cellular component assembly	0	0	-3,0574	1	0	0	-1,6594	1
myeloid cell differentiation	0	0	-3,0476	1	0	0	-1,3057	1
GTPase regulator activity	0	0	-3,0273	1	0	0	0	0
nuclear lumen	0	0	-3,0213	1	0	0	-11,417	1
positive regulation of alpha-beta								
T cell activation	0	0	-3,0213	1	0	0	0	0
immune response-regulating								
signaling pathway	0	0	-3,0132	1	0	0	-2,3854	1
immune response	0	0	-3,0084	1	0	0	-2,1422	1
membrane raft	0	0	-2,9966	1	0	0	0	0
negative regulation of								
developmental process	0	0	-2,9966	1	0	0	0	0
transcription factor binding	0	0	-2,9873	1	0	0	-5,4202	1
regulation of epidermis								
development	0	0	-2,9801	1	0	0	0	0
RNA splicing	0	0	-2,9546	1	-1,7362	1	-3,1649	1
positive regulation of								
mononuclear cell proliferation	0	0	-2,9177	1	0	0	0	0
calcium-mediated signaling	0	0	-2,9177	1	0	0	0	0
regulation of alpha-beta T cell								
activation	0	0	-2,9177	1	0	0	0	0

positive regulation of organelle organization	0	0	-2,9177	1	0	0	0	0
positive regulation of lymphocyte proliferation	0	0	-2,9177	1	0	0	0	0
nucleoside-triphosphatase regulator activity	0	0	-2,8938	1	0	0	0	0
negative regulation of cellular component movement	0	0	-2,8863	1	0	0	0	0
negative regulation of locomotion	0	0	-2,8863	1	0	0	0	0
phosphoprotein phosphatase activity	0	0	-2,8626	1	0	0	-1,7767	1
positive regulation of cellular component movement	0	0	-2,8523	1	0	0	0	0
positive regulation of locomotion	0	0	-2,8523	1	0	0	0	0
transcription activator activity	0	0	-2,8491	1	0	0	-2,9654	1
protein amino acid dephosphorylation	0	0	-2,8491	1	0	0	0	0
actin binding	0	0	-2,8487	1	0	0	0	0
regulation of protein modification process	0	0	-2,7923	1	0	0	0	0
positive regulation of leukocyte proliferation	0	0	-2,788	1	0	0	0	0
enzyme regulator activity	0	0	-2,7833	1	0	0	0	0
response to wounding	0	0	-2,7833	1	0	0	0	0
cell communication	0	0	-2,779	1	0	0	0	0
regulation of mononuclear cell proliferation	0	0	-2,7758	1	0	0	0	0
regulation of lymphocyte proliferation	0	0	-2,7758	1	0	0	0	0
negative regulation of T cell receptor signaling pathway	0	0	-2,7728	1	0	0	0	0
negative regulation of antigen receptor-mediated signaling pathway	0	0	-2,7728	1	0	0	0	0
nucleoplasm part	0	0	-2,7348	1	0	0	-6,091	1
regulation of actin cytoskeleton organization	0	0	-2,7348	1	0	0	0	0
positive regulation of cell migration	0	0	-2,7292	1	0	0	0	0
dephosphorylation	0	0	-2,703	1	0	0	0	0
regulation of cellular protein metabolic process	0	0	-2,685	1	0	0	-3,921	1
MHC class I peptide loading complex	0	0	-2,685	1	0	0	0	0
regulation of leukocyte proliferation	0	0	-2,685	1	0	0	0	0
Rho protein signal transduction	0	0	-2,685	1	0	0	0	0
fully spanning the plasma membrane	0	0	-2,685	1	0	0	0	0
localization of cell	0	0	-2,6594	1	0	0	0	0
cell motility	0	0	-2,6594	1	0	0	0	0
protein dimerization activity	0	0	-2,64	1	0	0	0	0

cellular defense response	0	0	-2,6351	1	0	0	0	0
cellular component biogenesis	0	0	-2,6338	1	0	0	-2,4835	1
organelle organization	0	0	-2,6328	1	-2,4374	1	-5,8761	1
positive regulation of immune response	0	0	-2,6328	1	0	0	-2,4758	1
positive regulation of response to stimulus	0	0	-2,6328	1	0	0	-1,5541	1
enzyme binding	0	0	-2,6326	1	0	0	-2,6892	1
response to external stimulus	0	0	-2,6293	1	0	0	0	0
peptidyl-amino acid modification	0	0	-2,6051	1	0	0	-3,173	1
locomotion	0	0	-2,6013	1	0	0	0	0
non-membrane spanning protein tyrosine kinase activity	0	0	-2,5964	1	0	0	0	0
negative regulation of cell migration	0	0	-2,5964	1	0	0	0	0
cell cycle	0	0	-2,5871	1	-1,5242	1	-1,3947	1
PML body	0	0	-2,5784	1	0	0	0	0
regulation of Ras protein signal transduction	0	0	-2,5751	1	0	0	0	0
positive regulation of cell differentiation	0	0	-2,5612	1	0	0	0	0
immune response-activating cell surface receptor signaling pathway	0	0	-2,5341	1	0	0	-2,0443	1
regulation of T cell differentiation	0	0	-2,5341	1	0	0	0	0
negative regulation of myeloid cell differentiation	0	0	-2,5164	1	0	0	0	0
negative regulation of cell differentiation	0	0	-2,5096	1	0	0	0	0
intracellular organelle lumen	0	0	-2,5021	1	-2,4631	1	-12,167	1
positive regulation of epidermis development	0	0	-2,4859	1	0	0	0	0
protein domain specific binding	0	0	-2,4859	1	0	0	0	0
enzyme activator activity	0	0	-2,4554	1	0	0	0	0
organelle lumen	0	0	-2,4413	1	-2,3745	1	-11,947	1
negative regulation of signal transduction	0	0	-2,4181	1	0	0	0	0
phosphotransferase activity, alcohol group as acceptor	0	0	-2,4154	1	0	0	-2,5053	1
negative regulation of signaling process	0	0	-2,3724	1	0	0	0	0
kinase activity	0	0	-2,364	1	0	0	-3,1204	1
cell-matrix adhesion	0	0	-2,3488	1	0	0	0	0
nuclear part	0	0	-2,3334	1	-2,8778	1	-12,812	1
immune response-regulating cell surface receptor signaling pathway	0	0	-2,3334	1	0	0	-2,2149	1
signal initiation by diffusible mediator	0	0	-2,333	1	0	0	-1,648	1
initiation of signal transduction	0	0	-2,333	1	0	0	-1,648	1

cytokine-mediated signaling pathway	0	0	-2,333	1	0	0	-1,648	1
signal initiation by protein/peptide mediator receptor complex	0	0	-2,333	1	0	0	-1,648	1
positive regulation of alpha-beta T cell differentiation	0	0	-2,333	1	0	0	0	0
regulation of actin filament bundle assembly	0	0	-2,3266	1	0	0	0	0
specific RNA polymerase II transcription factor activity	0	0	-2,3266	1	0	0	0	0
phosphatase activity	0	0	-2,308	1	0	0	-2,0764	1
myeloid leukocyte differentiation	0	0	-2,3055	1	0	0	0	0
positive regulation of T cell differentiation	0	0	-2,2867	1	0	0	0	0
regulation of transmembrane receptor protein serine/threonine kinase signaling pathway	0	0	-2,2834	1	0	0	0	0
regulation of localization	0	0	-2,231	1	0	0	0	0
regulation of cell cycle	0	0	-2,2293	1	0	0	-1,8125	1
positive regulation of molecular function	0	0	-2,2113	1	0	0	-1,6311	1
nucleotide binding	0	0	-2,2091	1	-2,6495	1	-5,6402	1
actin filament bundle assembly	0	0	-2,2057	1	0	0	0	0
membrane-enclosed lumen	0	0	-2,2047	1	-2,9601	1	-11,939	1
positive regulation of interleukin-4 production	0	0	-2,1949	1	0	0	0	0
non-membrane-bounded organelle	0	0	-2,187	1	0	0	-3,184	1
intracellular non-membrane-bounded organelle	0	0	-2,187	1	0	0	-3,184	1
regulation of defense response	0	0	-2,1685	1	0	0	0	0
actin cytoskeleton	0	0	-2,1495	1	0	0	0	0
regulation of transforming growth factor beta receptor signaling pathway	0	0	-2,1339	1	0	0	0	0
negative regulation of transmembrane receptor protein serine/threonine kinase signaling pathway	0	0	-2,1331	1	0	0	0	0
positive regulation of lymphocyte differentiation	0	0	-2,1331	1	0	0	0	0
response to chemical stimulus	0	0	-2,109	1	0	0	0	0
cellular macromolecular complex assembly	0	0	-2,0671	1	0	0	0	0
structure-specific DNA binding	0	0	-2,0528	1	0	0	-2,0007	1
guanyl-nucleotide exchange factor activity	0	0	-2,0528	1	0	0	0	0
regulation of immunoglobulin production	0	0	-2,0461	1	0	0	0	0
transcription cofactor activity	0	0	-2,0426	1	0	0	-2,3777	1

vasculature development	0	0	-2,0426	1	0	0	0	0
negative thymic T cell selection	0	0	-2,0402	1	0	0	0	0
regulation of kinase activity	0	0	-2,025	1	0	0	0	0
regulation of ossification	0	0	-2,011	1	0	0	0	0
plasma membrane	0	0	-2,0086	1	-1,5927	-1	-1,8726	-1
cellular macromolecule catabolic process	0	0	-2,001	1	0	0	-2,2529	1
regulation of alpha-beta T cell differentiation	0	0	-1,9973	1	0	0	0	0
regulation of protein amino acid phosphorylation	0	0	-1,9958	1	0	0	0	0
transmembrane receptor protein serine/threonine kinase signaling pathway	0	0	-1,9926	1	0	0	0	0
cellular protein complex assembly	0	0	-1,9926	1	0	0	0	0
regulation of binding	0	0	-1,991	1	0	0	-3,9909	1
blood vessel development	0	0	-1,9901	1	0	0	0	0
regulation of protein kinase activity	0	0	-1,9747	1	0	0	0	0
transforming growth factor beta receptor signaling pathway	0	0	-1,9732	1	0	0	0	0
protein polymerization	0	0	-1,9728	1	0	0	0	0
GTP binding	0	0	-1,9722	1	0	0	-2,1496	1
mRNA metabolic process	0	0	-1,9569	1	-3,501	1	-4,6459	1
cytoplasmic part	0	0	-1,9564	1	-11,656	1	-19,524	1
negative regulation of molecular function	0	0	-1,9468	1	0	0	0	0
macromolecular complex subunit organization	0	0	-1,9439	1	0	0	-2,5982	1
lamellipodium	0	0	-1,9439	1	0	0	0	0
positive regulation of catalytic activity	0	0	-1,9355	1	0	0	0	0
regulation of myeloid leukocyte differentiation	0	0	-1,9297	1	0	0	0	0
cell-substrate adhesion	0	0	-1,9251	1	0	0	0	0
protein metabolic process	0	0	-1,9247	1	-5,9957	1	-13,703	1
ADP binding	0	0	-1,9031	1	0	0	0	0
positive regulation of calcium-mediated signaling	0	0	-1,9031	1	0	0	0	0
positive regulation of protein polymerization	0	0	-1,9031	1	0	0	0	0
adaptive immune response	0	0	-1,8973	1	0	0	-1,3477	1
adaptive immune response based on somatic recombination of immune receptors built from immunoglobulin superfamily domains	0	0	-1,8973	1	0	0	-1,3477	1
actin polymerization or depolymerization	0	0	-1,8972	1	0	0	0	0

transcription corepressor activity	0	0	-1,8878	1	0	0	0	
phosphoric ester hydrolase activity	0	0	-1,8833	1	0	0	-1,8387	1
antigen processing and presentation of endogenous peptide antigen via MHC class I CD8-positive, alpha-beta T cell differentiation	0	0	-1,8833	1	0	0	0	0
positive regulation of actin filament polymerization	0	0	-1,8833	1	0	0	0	0
positive regulation of stress fiber assembly	0	0	-1,8833	1	0	0	0	0
negative T cell selection	0	0	-1,8833	1	0	0	0	0
intracellular organelle part regulation of actin polymerization or depolymerization	0	0	-1,8817	1	-3,3483	1	-16,177	1
regulation of smooth muscle cell proliferation	0	0	-1,8804	1	0	0	0	0
negative regulation of immune system process	0	0	-1,8804	1	0	0	0	0
anatomical structure morphogenesis	0	0	-1,88	1	0	0	0	0
zinc ion binding	0	0	-1,8667	1	0	0	0	0
regulation of transferase activity	0	0	-1,8663	1	0	0	-13,517	1
regulation of organelle organization	0	0	-1,8625	1	0	0	0	0
GTPase activator activity	0	0	-1,8625	1	0	0	0	0
macromolecule catabolic process	0	0	-1,8596	1	0	0	0	0
in utero embryonic development	0	0	-1,8398	1	0	0	-2,2879	1
natural killer cell activation	0	0	-1,8398	1	0	0	0	0
positive regulation of protein modification process	0	0	-1,8398	1	0	0	0	0
anterior/posterior axis specification	0	0	-1,8398	1	0	0	0	0
cell leading edge	0	0	-1,8398	1	0	0	0	0
regulation of actin filament length	0	0	-1,833	1	0	0	0	0
actin filament polymerization	0	0	-1,833	1	0	0	0	0
positive regulation of cellular protein metabolic process	0	0	-1,8186	1	0	0	-2,7984	1
organelle part	0	0	-1,8166	1	-2,9486	1	-16,085	1
regulation of caspase activity	0	0	-1,8135	1	0	0	0	0
cellular response to organic substance	0	0	-1,8128	1	0	0	0	0
negative regulation of transforming growth factor beta receptor signaling pathway	0	0	-1,8102	1	0	0	0	0

negative regulation of osteoblast differentiation	0	0	-1,8102	1	0	0	0	0
macromolecular complex assembly	0	0	-1,8048	1	0	0	-2,6585	1
protein complex binding	0	0	-1,8048	1	0	0	-2,3479	1
defense response	0	0	-1,8034	1	0	0	0	0
cell projection organization	0	0	-1,7931	1	0	0	0	0
smooth muscle cell proliferation	0	0	-1,7828	1	0	0	0	0
response to protein stimulus	0	0	-1,7764	1	0	0	0	0
tissue homeostasis	0	0	-1,7742	1	0	0	0	0
nucleoside-triphosphatase activity	0	0	-1,7742	1	0	0	0	0
Rho guanyl-nucleotide exchange factor activity	0	0	-1,771	1	0	0	0	0
SMAD binding	0	0	-1,7616	1	0	0	0	0
regulation of endopeptidase activity	0	0	-1,7508	1	0	0	0	0
cytoskeleton	0	0	-1,7489	1	0	0	0	0
regulation of cellular component biogenesis	0	0	-1,7489	1	0	0	0	0
positive regulation of actin filament bundle assembly	0	0	-1,7478	1	0	0	0	0
activation of immune response	0	0	-1,7441	1	0	0	0	0
positive regulation of protein metabolic process	0	0	-1,7417	1	0	0	-2,6521	1
purine ribonucleotide binding	0	0	-1,7393	1	0	0	-2,8602	1
response to cytokine stimulus	0	0	-1,7371	1	0	0	0	0
ribonucleotide binding	0	0	-1,7325	1	0	0	-2,8501	1
protein tyrosine/serine/threonine phosphatase activity	0	0	-1,7195	1	0	0	0	0
cellular macromolecular complex subunit organization	0	0	-1,7195	1	0	0	0	0
second-messenger-mediated signaling	0	0	-1,7195	1	0	0	0	0
positive regulation of smooth muscle cell proliferation	0	0	-1,7195	1	0	0	0	0
regulation of stress fiber assembly	0	0	-1,7184	1	0	0	0	0
regulation of calcium-mediated signaling	0	0	-1,7184	1	0	0	0	0
multicellular organismal homeostasis	0	0	-1,7181	1	0	0	0	0
guanyl nucleotide binding	0	0	-1,7145	1	0	0	-2,086	1
guanyl ribonucleotide binding	0	0	-1,7145	1	0	0	-2,086	1
mRNA processing	0	0	-1,7065	1	-2,924	1	-3,1204	1
protein serine/threonine phosphatase complex	0	0	-1,6961	1	0	0	-1,3052	1
regulation of protein polymerization	0	0	-1,6961	1	0	0	0	0
natural killer cell mediated immunity	0	0	-1,6961	1	0	0	0	0

natural killer cell mediated cytotoxicity	0	0	-1,6961	1	0	0	0	0
TAP2 binding	0	0	-1,6845	1	0	0	0	0
JUN kinase kinase kinase activity	0	0	-1,6845	1	0	0	0	0
positive regulation of transcription via sterol regulatory element binding	0	0	-1,6845	1	0	0	0	0
cellular response to mycophenolic acid	0	0	-1,6845	1	0	0	0	0
uropod organization	0	0	-1,6845	1	0	0	0	0
TAP1 binding	0	0	-1,6845	1	0	0	0	0
TAP binding	0	0	-1,6845	1	0	0	0	0
activation of pro-apoptotic gene products	0	0	-1,6845	1	0	0	0	0
TAP complex	0	0	-1,6845	1	0	0	0	0
natural killer cell degranulation	0	0	-1,6845	1	0	0	0	0
response to mycophenolic acid	0	0	-1,6845	1	0	0	0	0
tapasin binding	0	0	-1,6845	1	0	0	0	0
sphinganine-1-phosphate metabolic process	0	0	-1,6845	1	0	0	0	0
cellular response to fatty acid	0	0	-1,6845	1	0	0	0	0
Arp2/3 protein complex	0	0	-1,6839	1	0	0	0	0
galactose metabolic process	0	0	-1,6839	1	0	0	0	0
trailing edge	0	0	-1,6839	1	0	0	0	0
positive regulation of immunoglobulin production	0	0	-1,6839	1	0	0	0	0
uropod	0	0	-1,6839	1	0	0	0	0
apoptotic protease activator activity	0	0	-1,6839	1	0	0	0	0
regulation of actin filament polymerization	0	0	-1,6828	1	0	0	0	0
regulation of cytoskeleton organization	0	0	-1,6707	1	0	0	0	0
transferase activity, transferring phosphorus-containing groups	0	0	-1,6653	1	0	0	-5,3354	1
proteolysis involved in cellular protein catabolic process	0	0	-1,6653	1	0	0	-1,9969	1
negative regulation of multicellular organismal process	0	0	-1,6645	1	0	0	0	0
morphogenesis of a branching structure	0	0	-1,6645	1	0	0	0	0
homeostatic process	0	0	-1,6644	1	0	0	0	0
protein serine/threonine kinase activity	0	0	-1,6446	1	0	0	-2,5053	1
homeostasis of number of cells within a tissue	0	0	-1,6446	1	0	0	0	0
lamellipodium assembly	0	0	-1,6446	1	0	0	0	0
interleukin-1 beta production	0	0	-1,6446	1	0	0	0	0
regulation of interleukin-1 beta production	0	0	-1,6446	1	0	0	0	0

ER-nucleus signaling pathway	0	0	-1,6401	1	0	0	-2,0957	1
induction of apoptosis by								
extracellular signals	0	0	-1,6401	1	0	0	0	0
epithelial cell proliferation	0	0	-1,6359	1	0	0	0	0
GTP metabolic process	0	0	-1,6146	1	0	0	-2,1292	1
pyrophosphatase activity	0	0	-1,6146	1	0	0	0	0
inflammatory response	0	0	-1,6128	1	0	0	0	0
protein homodimerization								
activity	0	0	-1,6111	1	0	0	0	0
cellular protein catabolic process	0	0	-1,5941	1	0	0	-1,8811	1
regulation of response to stress	0	0	-1,59	1	0	0	0	0
protein complex assembly	0	0	-1,5843	1	0	0	-1,7487	1
protein complex biogenesis	0	0	-1,5843	1	0	0	-1,7487	1
activation of protein kinase								
activity	0	0	-1,5836	1	0	0	0	0
JAK-STAT cascade	0	0	-1,5822	1	0	0	0	0
antigen processing and								
presentation	0	0	-1,5822	1	0	0	0	0
hydrolase activity, acting on acid								
anhydrides, in phosphorus-								
containing anhydrides	0	0	-1,5819	1	0	0	0	0
purine nucleotide binding	0	0	-1,5778	1	0	0	-2,5053	1
protein kinase activity	0	0	-1,5731	1	0	0	-2,3801	1
regulation of protein metabolic								
process	0	0	-1,5729	1	0	0	-5,4498	1
cytosolic small ribosomal								
subunit	0	0	-1,5729	1	0	0	-4,6536	1
hydrolase activity, acting on acid								
anhydrides	0	0	-1,5729	1	0	0	0	0
mast cell activation	0	0	-1,5729	1	0	0	0	0
response to mechanical stimulus	0	0	-1,5651	1	0	0	0	0
positive regulation of protein								
complex assembly	0	0	-1,5651	1	0	0	0	0
heterophilic cell-cell adhesion	0	0	-1,5651	1	0	0	0	0
axis specification	0	0	-1,5651	1	0	0	0	0
activated T cell proliferation	0	0	-1,5651	1	0	0	0	0
nervous system development	0	0	-1,5529	1	0	0	-1,8508	-1
purine nucleoside triphosphate								
metabolic process	0	0	-1,5455	1	0	0	-2,5053	1
GTP catabolic process	0	0	-1,5453	1	0	0	-1,9969	1
negative regulation of defense								
response	0	0	-1,5397	1	0	0	0	0
regulation of peptidase activity	0	0	-1,5397	1	0	0	0	0
regulation of positive								
chemotaxis	0	0	-1,5381	1	0	0	0	0
positive regulation of positive								
chemotaxis	0	0	-1,5381	1	0	0	0	0
regulation of interleukin-1								
production	0	0	-1,5381	1	0	0	0	0

antigen processing and presentation of peptide antigen via MHC class I	0	0	-1,5381	1	0	0	0
positive regulation of cellular component organization	0	0	-1,5249	1	0	0	0
transferase activity	0	0	-1,5157	1	0	0	-6,1469
negative regulation of calcium ion transport via voltage-gated calcium channel activity	0	0	-1,5157	1	0	0	0
protein ubiquitination involved in ubiquitin-dependent protein catabolic process	0	0	-1,5157	1	0	0	0
cellular extravasation	0	0	-1,5157	1	0	0	0
small GTPase regulator activity	0	0	-1,5157	1	0	0	0
positive regulation of response to external stimulus	0	0	-1,5157	1	0	0	0
pathway-restricted SMAD protein phosphorylation	0	0	-1,5157	1	0	0	0
caspase regulator activity	0	0	-1,5157	1	0	0	0
transferase activity, transferring glycosyl groups	0	0	-1,5157	1	0	0	0
dendrite	0	0	-1,5157	1	0	0	0
GABA receptor binding	0	0	-1,5157	1	0	0	0
positive regulation of cell-cell adhesion	0	0	-1,5157	1	0	0	0
cortical actin cytoskeleton	0	0	-1,496	1	0	0	0
peptidyl-threonine modification	0	0	-1,496	1	0	0	0
hair follicle morphogenesis	0	0	-1,496	1	0	0	0
stress fiber assembly	0	0	-1,496	1	0	0	0
peptidyl-threonine phosphorylation	0	0	-1,496	1	0	0	0
positive regulation of protein secretion	0	0	-1,496	1	0	0	0
muscle cell proliferation	0	0	-1,4861	1	0	0	0
cAMP biosynthetic process	0	0	-1,4857	1	0	0	-1,5113
homeostasis of number of cells	0	0	-1,4801	1	0	0	-1,8431
nucleoside triphosphate metabolic process	0	0	-1,471	1	0	0	-2,5477
hormone receptor binding	0	0	-1,4698	1	0	0	0
regulation of production of molecular mediator of immune response	0	0	-1,4698	1	0	0	0
regulation of adaptive immune response based on somatic recombination of immune receptors built from immunoglobulin superfamily domains	0	0	-1,4664	1	0	0	-2,3216
regulation of adaptive immune response	0	0	-1,4664	1	0	0	-2,3216
cell morphogenesis	0	0	-1,4655	1	0	0	0
plasma membrane part	0	0	-1,4636	1	0	0	-2,0007

cytokine receptor activity	0	0	-1,4617	1	0	0	0	0
osteoclast differentiation	0	0	-1,4617	1	0	0	0	0
gene-specific transcription from RNA polymerase II promoter	0	0	-1,4617	1	0	0	0	0
regulation of gene-specific transcription from RNA polymerase II promoter	0	0	-1,4617	1	0	0	0	0
inositol or phosphatidylinositol kinase activity	0	0	-1,4617	1	0	0	0	0
macromolecular complex	0	0	-1,4584	1	-4,1244	1	-14,848	1
interleukin-1 production	0	0	-1,4474	1	0	0	0	0
growth	0	0	-1,4474	1	0	0	0	0
negative regulation of small GTPase mediated signal transduction	0	0	-1,4474	1	0	0	0	0
embryonic axis specification	0	0	-1,4474	1	0	0	0	0
negative regulation of Ras protein signal transduction	0	0	-1,4474	1	0	0	0	0
purine nucleotide metabolic process	0	0	-1,4439	1	0	0	0	0
purine ribonucleoside triphosphate metabolic process	0	0	-1,4396	1	0	0	-2,7037	1
nuclear body	0	0	-1,4313	1	0	0	-3,1011	1
small ribosomal subunit	0	0	-1,4312	1	0	0	-5,2933	1
positive regulation of protein transport	0	0	-1,4312	1	0	0	0	0
chemokine binding	0	0	-1,4312	1	0	0	0	0
palate development	0	0	-1,4312	1	0	0	0	0
G-protein chemoattractant receptor activity	0	0	-1,4312	1	0	0	0	0
positive regulation of interferon- gamma production	0	0	-1,4312	1	0	0	0	0
chemokine receptor activity	0	0	-1,4312	1	0	0	0	0
positive regulation of cyclic nucleotide biosynthetic process	0	0	-1,4312	1	0	0	0	0
positive regulation of nucleotide biosynthetic process	0	0	-1,4312	1	0	0	0	0
lipid storage	0	0	-1,4312	1	0	0	0	0
ribonucleoside triphosphate metabolic process	0	0	-1,4291	1	0	0	-2,6689	1
positive regulation of signal transduction	0	0	-1,4284	1	0	0	-1,3809	1
anatomical structure formation involved in morphogenesis	0	0	-1,4284	1	0	0	0	0
Ras guanyl-nucleotide exchange factor activity	0	0	-1,4284	1	0	0	0	0
regulation of cellular component size	0	0	-1,4186	1	0	0	0	0
tissue morphogenesis	0	0	-1,4139	1	0	0	0	0
cellular response to protein stimulus	0	0	-1,4139	1	0	0	0	0
specific transcriptional repressor activity	0	0	-1,4139	1	0	0	0	0

regulation of cyclic nucleotide biosynthetic process	0	0	-1,4088	1	0	0	-1,6149	-1
regulation of nucleotide biosynthetic process	0	0	-1,4088	1	0	0	-1,6149	-1
glycosylation	0	0	-1,3975	1	0	0	0	0
protein amino acid glycosylation	0	0	-1,3975	1	0	0	0	0
macromolecule glycosylation	0	0	-1,3975	1	0	0	0	0
regulation of osteoblast differentiation	0	0	-1,3828	1	0	0	0	0
lymphocyte costimulation	0	0	-1,381	1	0	0	0	0
T cell costimulation	0	0	-1,381	1	0	0	0	0
antigen processing and presentation of endogenous antigen	0	0	-1,381	1	0	0	0	0
cellular response to lithium ion	0	0	-1,381	1	0	0	0	0
antigen processing and presentation of endogenous peptide antigen	0	0	-1,381	1	0	0	0	0
positive regulation of alpha-beta T cell proliferation	0	0	-1,381	1	0	0	0	0
cell-substrate junction assembly	0	0	-1,3648	1	0	0	0	0
positive regulation of cyclic nucleotide metabolic process	0	0	-1,3648	1	0	0	0	0
positive regulation of nucleotide metabolic process	0	0	-1,3648	1	0	0	0	0
positive regulation of signaling process	0	0	-1,3629	1	0	0	0	0
T cell mediated immunity	0	0	-1,3582	1	0	0	-2,5471	1
phagocytic cup	0	0	-1,3539	1	0	0	0	0
positive regulation of endothelial cell differentiation	0	0	-1,3539	1	0	0	0	0
negative regulation of gene-specific transcription	0	0	-1,3539	1	0	0	0	0
neutrophil differentiation	0	0	-1,3539	1	0	0	0	0
protein tyrosine/threonine phosphatase activity	0	0	-1,3539	1	0	0	0	0
negative regulation of protein binding	0	0	-1,3539	1	0	0	0	0
aminoacyl-tRNA hydrolase activity	0	0	-1,3539	1	0	0	0	0
regulation of inflammatory response	0	0	-1,3539	1	0	0	0	0
natural killer cell activation involved in immune response	0	0	-1,3539	1	0	0	0	0
trachea formation	0	0	-1,3539	1	0	0	0	0
negative regulation of interleukin-1 beta production	0	0	-1,3539	1	0	0	0	0
antigen processing and presentation of exogenous peptide antigen via MHC class Ib	0	0	-1,3539	1	0	0	0	0

Rho GDP-dissociation inhibitor activity	0	0	-1,3539	1	0	0	0	0
MHC class I protein binding	0	0	-1,3539	1	0	0	0	0
regulation of striated muscle tissue development	0	0	-1,3539	1	0	0	0	0
negative regulation of interleukin-1 production	0	0	-1,3539	1	0	0	0	0
antigen processing and presentation of exogenous protein antigen via MHC class Ib, TAP-dependent	0	0	-1,3539	1	0	0	0	0
JAK-STAT cascade involved in growth hormone signaling pathway	0	0	-1,3539	1	0	0	0	0
misfolded protein binding	0	0	-1,3539	1	0	0	0	0
cyclic nucleotide biosynthetic process	0	0	-1,3539	1	0	0	-2,0393	-1
enzyme linked receptor protein signaling pathway	0	0	-1,3457	1	0	0	0	0
cellular nitrogen compound biosynthetic process	0	0	-1,3457	1	0	0	0	0
regulation of growth	0	0	-1,3417	1	0	0	0	0
purine ribonucleoside triphosphate catabolic process	0	0	-1,3368	1	0	0	-1,8658	1
regulation of cyclic nucleotide metabolic process	0	0	-1,3318	1	0	0	-1,7008	-1
nucleotide catabolic process	0	0	-1,3306	1	0	0	0	0
nucleobase, nucleoside and nucleotide metabolic process	0	0	-1,3297	1	0	0	-1,3138	1
regulation of response to external stimulus	0	0	-1,3224	1	0	0	0	0
regulation of anatomical structure morphogenesis	0	0	-1,322	1	0	0	0	0
ribonucleoside triphosphate catabolic process	0	0	-1,3201	1	0	0	-1,8396	1
identical protein binding	0	0	-1,3201	1	0	0	0	0
cell-cell adhesion	0	0	-1,3201	1	0	0	0	0
cell projection assembly	0	0	-1,3174	1	0	0	0	0
regulation of cAMP biosynthetic process	0	0	-1,3174	1	0	0	-1,3809	-1
regulation of embryonic development	0	0	-1,3169	1	0	0	0	0
muscle structure development	0	0	-1,316	1	0	0	0	0
transition metal ion binding	0	0	-1,3128	1	0	0	-9,5129	1
patterning of blood vessels	0	0	-1,3128	1	0	0	0	0
regulation of osteoclast differentiation	0	0	-1,3128	1	0	0	0	0
RNA processing	0	0	-1,3111	1	-4,4868	1	-4,3487	1
regulation of protein complex assembly	0	0	-1,3076	1	0	0	0	0
regulation of cell adhesion	0	0	-1,3076	1	0	0	0	0
mitochondrion	0	0	0	0	-11,523	1	-5,8665	1
ribonucleoprotein complex	0	0	0	0	-6,7595	1	-13,73	1

catalytic activity	0	0	0	0 -5,1884	1 -6,6364	1
RNA binding	0	0	0	0 -4,9747	1 -12,799	1
translation	0	0	0	0 -3,7232	1 -10,943	1
ncRNA metabolic process	0	0	0	0 -3,488	1 0	0
mitochondrial part	0	0	0	0 -2,8726	1 -4,8416	1
tRNA metabolic process	0	0	0	0 -2,6198	1 0	0
protein amino acid O-linked glycosylation	0	0	0	0 -2,3298	1 0	0
mitochondrial inner membrane	0	0	0	0 -2,2042	1 -4,3936	1
intracellular transport	0	0	0	0 -2,1104	1 -3,6892	1
intracellular protein transport	0	0	0	0 -2,0679	1 -2,6101	1
organelle inner membrane	0	0	0	0 -2,0604	1 -5,6596	1
ligase activity	0	0	0	0 -2,0108	1 -2,3216	1
purine nucleoside monophosphate metabolic process	0	0	0	0 -1,9468	1 0	0
purine ribonucleoside monophosphate metabolic process	0	0	0	0 -1,9468	1 0	0
eukaryotic translation initiation factor 3 complex	0	0	0	0 -1,9209	1 0	0
acyl-CoA binding	0	0	0	0 -1,9074	1 0	0
calcium-dependent protein binding	0	0	0	0 -1,9074	1 0	0
protein transport	0	0	0	0 -1,8758	1 -5,2464	1
cellular protein localization	0	0	0	0 -1,79	1 -3,5716	1
mitochondrial matrix	0	0	0	0 -1,79	1 0	0
mitochondrial lumen	0	0	0	0 -1,79	1 0	0
regulation of interleukin-6 production	0	0	0	0 -1,79	1 0	0
establishment of protein localization	0	0	0	0 -1,7839	1 -4,7905	1
spliceosomal complex	0	0	0	0 -1,7839	1 -1,5347	1
positive regulation of type I interferon production	0	0	0	0 -1,7839	1 0	0
histone lysine demethylation	0	0	0	0 -1,7839	1 0	0
cellular macromolecule localization	0	0	0	0 -1,7555	1 -4,0391	1
catabolic process	0	0	0	0 -1,7462	1 -2,4546	1
organelle membrane	0	0	0	0 -1,7362	1 -7,0645	1
ion binding	0	0	0	0 -1,7149	1 -6,7932	1
interleukin-6 production	0	0	0	0 -1,7149	1 0	0
ribonucleoside monophosphate metabolic process	0	0	0	0 -1,6816	1 0	0
cation binding	0	0	0	0 -1,6298	1 -6,8153	1
ribosome	0	0	0	0 -1,6206	1 -8,1765	1
metal ion binding	0	0	0	0 -1,6206	1 -7,1878	1
DNA metabolic process	0	0	0	0 -1,6206	1 -1,7942	1
ncRNA processing	0	0	0	0 -1,6201	1 0	0
protein transporter activity	0	0	0	0 -1,6134	1 0	0
mitochondrial membrane	0	0	0	0 -1,6056	1 -4,295	1
kinase inhibitor activity	0	0	0	0 -1,575	1 0	0

cellular response to biotic stimulus	0	0	0	0	0	0 -3,3274	1
regulation of translation	0	0	0	0	0	0 -3,2736	1
cellular response to stress	0	0	0	0	0	0 -3,2461	1
chromatin remodeling complex	0	0	0	0	0	0 -3,2448	1
histone deacetylase complex	0	0	0	0	0	0 -3,1182	1
protein modification by small protein conjugation	0	0	0	0	0	0 -2,9454	1
cellular response to stimulus	0	0	0	0	0	0 -2,93	1
nucleocytoplasmic transport	0	0	0	0	0	0 -2,93	1
NuRD complex	0	0	0	0	0	0 -2,901	1
generation of precursor metabolites and energy	0	0	0	0	0	0 -2,8344	1
peptidyl-serine phosphorylation	0	0	0	0	0	0 -2,8314	1
nuclear transport	0	0	0	0	0	0 -2,8159	1
Golgi apparatus	0	0	0	0	0	0 -2,8005	1
ribonucleotide metabolic process	0	0	0	0	0	0 -2,7799	1
translation factor activity, nucleic acid binding	0	0	0	0	0	0 -2,7071	1
purine ribonucleotide metabolic process	0	0	0	0	0	0 -2,6892	1
proteasomal ubiquitin-dependent protein catabolic process	0	0	0	0	0	0 -2,6755	1
chromatin	0	0	0	0	0	0 -2,65	1
translational initiation	0	0	0	0	0	0 -2,65	1
protein import into nucleus, translocation	0	0	0	0	0	0 -2,6366	1
nucleolus	0	0	0	0	0	0 -2,5982	1
proteasomal protein catabolic process	0	0	0	0	0	0 -2,5665	1
protein targeting	0	0	0	0	0	0 -2,5511	1
regulation of cellular catabolic process	0	0	0	0	0	0 -2,5476	1
small conjugating protein ligase activity	0	0	0	0	0	0 -2,514	1
protein modification by small protein conjugation or removal	0	0	0	0	0	0 -2,5053	1
proton-transporting two-sector ATPase complex	0	0	0	0	0	0 -2,5053	1
translation initiation factor activity	0	0	0	0	0	0 -2,4763	1
regulation of T cell mediated immunity	0	0	0	0	0	0 -2,4763	1
transcription coactivator activity	0	0	0	0	0	0 -2,4647	1
protein catabolic process	0	0	0	0	0	0 -2,4212	1
I-kappaB kinase/NF-kappaB cascade	0	0	0	0	0	0 -2,4089	1
protein ubiquitination	0	0	0	0	0	0 -2,3803	1

transport	0	0	0	0	0	0 -2,0007	1
response to muramyl dipeptide	0	0	0	0	0	0 -2,0007	1
regulation of translational elongation	0	0	0	0	0	0 -2,0007	1
signal recognition particle, endoplasmic reticulum targeting	0	0	0	0	0	0 -2,0007	1
signal recognition particle	0	0	0	0	0	0 -2,0007	1
ubiquitin-protein ligase activity	0	0	0	0	0	0 -1,9998	1
cellular response to external stimulus	0	0	0	0	0	0 -1,9967	1
heparan sulfate proteoglycan metabolic process	0	0	0	0	0	0 -1,9804	1
nuclear periphery	0	0	0	0	0	0 -1,9646	1
heat shock protein binding	0	0	0	0	0	0 -1,9539	1
response to endoplasmic reticulum stress	0	0	0	0	0	0 -1,9233	1
maintenance of location	0	0	0	0	0	0 -1,9176	1
gene silencing	0	0	0	0	0	0 -1,9176	1
endoplasmic reticulum establishment of localization	0	0	0	0	0	0 -1,8977	1
steroid hormone receptor signaling pathway	0	0	0	0	0	0 -1,8826	1
histone acetyltransferase activity	0	0	0	0	0	0 -1,8772	1
lysine N-acetyltransferase activity	0	0	0	0	0	0 -1,8772	1
translational elongation	0	0	0	0	0	0 -1,8772	1
ribonucleotide catabolic process	0	0	0	0	0	0 -1,8768	1
response to exogenous dsRNA	0	0	0	0	0	0 -1,8726	1
B cell apoptosis	0	0	0	0	0	0 -1,8726	1
nucleoside triphosphate biosynthetic process	0	0	0	0	0	0 -1,8726	1
mitochondrial proton-transporting ATP synthase complex	0	0	0	0	0	0 -1,8726	1
B cell receptor signaling pathway	0	0	0	0	0	0 -1,8726	1
establishment of localization in cell	0	0	0	0	0	0 -1,8726	1
ligase activity, forming carbon-nitrogen bonds	0	0	0	0	0	0 -1,8726	1
zinc ion transmembrane transporter activity	0	0	0	0	0	0 -1,8726	1
nuclear inner membrane	0	0	0	0	0	0 -1,8726	1
immunoglobulin production	0	0	0	0	0	0 -1,8609	1
regulation of Rho GTPase activity	0	0	0	0	0	0 -1,8608	1
regulation of T cell mediated cytotoxicity	0	0	0	0	0	0 -1,8608	1
acid-amino acid ligase activity	0	0	0	0	0	0 -1,8508	1

chromatin assembly or disassembly	0	0	0	0	0	0 -1,8465	1
ubiquitin-dependent protein catabolic process	0	0	0	0	0	0 -1,8282	1
hydrolase activity, acting on carbon-nitrogen (but not peptide) bonds	0	0	0	0	0	0 -1,8215	1
Ral GTPase binding	0	0	0	0	0	0 -1,8125	1
post-embryonic camera-type eye morphogenesis	0	0	0	0	0	0 -1,8125	1
positive regulation of protein export from nucleus	0	0	0	0	0	0 -1,8125	1
histone H4-K20 methylation	0	0	0	0	0	0 -1,8125	1
T cell proliferation involved in immune response	0	0	0	0	0	0 -1,8125	1
histone methyltransferase activity (H4-K20 specific)	0	0	0	0	0	0 -1,8125	1
histone methyltransferase activity	0	0	0	0	0	0 -1,8121	1
purine nucleoside triphosphate catabolic process	0	0	0	0	0	0 -1,7885	1
purine ribonucleotide biosynthetic process	0	0	0	0	0	0 -1,7837	1
hydrolase activity, acting on ester bonds	0	0	0	0	0	0 -1,7671	1
purine ribonucleotide catabolic process	0	0	0	0	0	0 -1,7579	1
protein import into nucleus	0	0	0	0	0	0 -1,7391	1
histone methylation	0	0	0	0	0	0 -1,7334	1
protein localization in organelle	0	0	0	0	0	0 -1,7225	1
nucleobase, nucleoside, nucleotide kinase activity	0	0	0	0	0	0 -1,717	1
positive regulation of T cell mediated cytotoxicity	0	0	0	0	0	0 -1,7157	1
mannosidase activity	0	0	0	0	0	0 -1,7157	1
nucleoside triphosphate catabolic process	0	0	0	0	0	0 -1,6977	1
mannosyl-oligosaccharide mannosidase activity	0	0	0	0	0	0 -1,6927	1
regulation of GTPase activity	0	0	0	0	0	0 -1,6927	1
ribonucleoside triphosphate biosynthetic process	0	0	0	0	0	0 -1,6927	1
ribonucleotide biosynthetic process	0	0	0	0	0	0 -1,6927	1
regulation of GTP catabolic process	0	0	0	0	0	0 -1,6927	1
nuclear import	0	0	0	0	0	0 -1,6927	1
modification-dependent protein catabolic process	0	0	0	0	0	0 -1,6927	1
protein insertion into membrane modification-dependent macromolecule catabolic process	0	0	0	0	0	0 -1,6927	1

purine ribonucleoside							
triphosphate biosynthetic							
process	0	0	0	0	0	0 -1,6927	1
VCB complex	0	0	0	0	0	0 -1,6927	1
endoplasmic reticulum calcium							
ion homeostasis	0	0	0	0	0	0 -1,6927	1
glycoprotein biosynthetic							
process	0	0	0	0	0	0 -1,6677	1
protein amino acid acetylation	0	0	0	0	0	0 -1,6677	1
histone acetylation	0	0	0	0	0	0 -1,6677	1
small molecule metabolic							
process	0	0	0	0	0	0 -1,6594	1
purine nucleoside triphosphate							
biosynthetic process	0	0	0	0	0	0 -1,648	1
regulation of I-kappaB kinase/NF-							
kappaB cascade	0	0	0	0	0	0 -1,648	1
ribonucleoprotein complex							
biogenesis	0	0	0	0	0	0 -1,6415	1
nucleoside diphosphate							
metabolic process	0	0	0	0	0	0 -1,6119	1
DNA packaging	0	0	0	0	0	0 -1,6059	1
ATP binding	0	0	0	0	0	0 -1,5854	1
phospholipid binding	0	0	0	0	0	0 -1,5712	1
rRNA transcription	0	0	0	0	0	0 -1,5695	1
retinoic acid receptor binding	0	0	0	0	0	0 -1,5695	1
regulation of proteasomal							
ubiquitin-dependent protein							
catabolic process	0	0	0	0	0	0 -1,5685	1
regulation of isotype switching	0	0	0	0	0	0 -1,5685	1
hydrogen-exporting ATPase							
activity, phosphorylative							
mechanism	0	0	0	0	0	0 -1,5685	1
chromosome	0	0	0	0	0	0 -1,555	1
ATP biosynthetic process	0	0	0	0	0	0 -1,5492	1
double-stranded DNA binding	0	0	0	0	0	0 -1,5482	1
ubiquitin ligase complex	0	0	0	0	0	0 -1,529	1
receptor signaling protein							
serine/threonine kinase activity	0	0	0	0	0	0 -1,529	1
N-methyltransferase activity	0	0	0	0	0	0 -1,4853	1
regulation of proteolysis	0	0	0	0	0	0 -1,4853	1
proteasome core complex	0	0	0	0	0	0 -1,4834	1
T cell mediated cytotoxicity	0	0	0	0	0	0 -1,4834	1
ribosome biogenesis	0	0	0	0	0	0 -1,4771	1
ribonucleoprotein binding	0	0	0	0	0	0 -1,4633	1
ATPase activity, coupled to							
transmembrane movement of							
ions	0	0	0	0	0	0 -1,4486	1
regulation of protein catabolic							
process	0	0	0	0	0	0 -1,445	1
nuclear DNA-directed RNA							
polymerase complex	0	0	0	0	0	0 -1,4392	1
nucleoside diphosphate							
biosynthetic process	0	0	0	0	0	0 -1,4392	1

cytoplasmic ubiquitin ligase complex	0	0	0	0	0	0 -1,4392	1
DNA-directed RNA polymerase complex	0	0	0	0	0	0 -1,4392	1
regulation of protein export from nucleus	0	0	0	0	0	0 -1,4392	1
SUMO ligase activity	0	0	0	0	0	0 -1,4392	1
negative regulation of T cell mediated immunity	0	0	0	0	0	0 -1,4392	1
cytosolic large ribosomal subunit	0	0	0	0	0	0 -1,4392	1
heparan sulfate proteoglycan biosynthetic process	0	0	0	0	0	0 -1,4392	1
regulation of protein kinase B signaling cascade	0	0	0	0	0	0 -1,4317	1
proton-transporting ATP synthase complex	0	0	0	0	0	0 -1,4317	1
regulation of purine nucleotide catabolic process	0	0	0	0	0	0 -1,4317	1
'de novo' posttranslational protein folding	0	0	0	0	0	0 -1,4317	1
regulation of histone modification	0	0	0	0	0	0 -1,4317	1
regulation of proteasomal protein catabolic process	0	0	0	0	0	0 -1,4317	1
'de novo' protein folding	0	0	0	0	0	0 -1,4317	1
regulation of nucleotide catabolic process	0	0	0	0	0	0 -1,4317	1
carbohydrate metabolic process	0	0	0	0	0	0 -1,4163	1
erythrocyte differentiation	0	0	0	0	0	0 -1,4147	1
DNA conformation change	0	0	0	0	0	0 -1,4063	1
positive regulation of cell cycle arrest	0	0	0	0	0	0 -1,4049	1
integral to nuclear inner membrane	0	0	0	0	0	0 -1,4049	1
negative regulation of T-helper 2 type immune response	0	0	0	0	0	0 -1,4049	1
protein amino acid acylation	0	0	0	0	0	0 -1,4049	1
positive regulation of adaptive immune response based on somatic recombination of immune receptors built from immunoglobulin superfamily domains	0	0	0	0	0	0 -1,4049	1
negative regulation of protein metabolic process	0	0	0	0	0	0 -1,4049	1
response to peptidoglycan	0	0	0	0	0	0 -1,4049	1
N-glycan processing	0	0	0	0	0	0 -1,4049	1
hypusine metabolic process	0	0	0	0	0	0 -1,4049	1
eukaryotic initiation factor 4E binding	0	0	0	0	0	0 -1,4049	1
macromolecule methylation	0	0	0	0	0	0 -1,4049	1
acrosome assembly	0	0	0	0	0	0 -1,4049	1

regulation of cell cycle arrest	0	0	0	0	0	0 -1,4049	1
regulation of glucocorticoid metabolic process	0	0	0	0	0	0 -1,4049	1
7S RNA binding	0	0	0	0	0	0 -1,4049	1
phosphopyruvate hydratase activity	0	0	0	0	0	0 -1,4049	1
TATA-binding protein binding	0	0	0	0	0	0 -1,4049	1
corticosteroid receptor signaling pathway	0	0	0	0	0	0 -1,4049	1
thrombin receptor activity	0	0	0	0	0	0 -1,4049	1
negative regulation of alpha-beta T cell proliferation	0	0	0	0	0	0 -1,4049	1
DNA-directed RNA polymerase I complex	0	0	0	0	0	0 -1,4049	1
positive regulation of adaptive immune response	0	0	0	0	0	0 -1,4049	1
snRNA binding	0	0	0	0	0	0 -1,4049	1
signal peptide processing	0	0	0	0	0	0 -1,4049	1
post-embryonic eye morphogenesis	0	0	0	0	0	0 -1,4049	1
positive regulation of antigen receptor-mediated signaling pathway	0	0	0	0	0	0 -1,4049	1
peptidyl-lysine modification to hypusine	0	0	0	0	0	0 -1,4049	1
intrinsic to nuclear inner membrane	0	0	0	0	0	0 -1,4049	1
protein amino acid deacetylation	0	0	0	0	0	0 -1,4013	1
threonine-type peptidase activity	0	0	0	0	0	0 -1,4013	1
threonine-type endopeptidase activity	0	0	0	0	0	0 -1,4013	1
magnesium ion binding	0	0	0	0	0	0 -1,4006	1
negative regulation of cellular protein metabolic process	0	0	0	0	0	0 -1,4004	1
nuclear membrane	0	0	0	0	0	0 -1,3993	1
cellular polysaccharide biosynthetic process	0	0	0	0	0	0 -1,3993	1
intrinsic to Golgi membrane	0	0	0	0	0	0 -1,3993	1
cellular response to molecule of bacterial origin	0	0	0	0	0	0 -1,3993	1
integral to Golgi membrane	0	0	0	0	0	0 -1,3993	1
positive regulation of translation	0	0	0	0	0	0 -1,3928	1
protein kinase B signaling cascade	0	0	0	0	0	0 -1,3928	1
negative regulation of cell cycle	0	0	0	0	0	0 -1,3844	1
proteasome complex	0	0	0	0	0	0 -1,3828	1
negative regulation of T cell activation	0	0	0	0	0	0 -1,3809	1
MAPKKK cascade	0	0	0	0	0	0 -1,3809	1

serine-type endopeptidase								
inhibitor activity	0	0	0	0	0	0	-1,5482	-1
regulation of adenylate cyclase								
activity	0	0	0	0	0	0	-1,5545	-1
monooxygenase activity	0	0	0	0	0	0	-1,6211	-1
regulation of cyclase activity	0	0	0	0	0	0	-1,6284	-1
regulation of lyase activity	0	0	0	0	0	0	-1,6284	-1
neuron development	0	0	0	0	0	0	-1,648	-1
tetrapyrrole binding	0	0	0	0	0	0	-1,6517	-1
potassium channel activity	0	0	0	0	0	0	-1,6754	-1
sugar binding	0	0	0	0	0	0	-1,6761	-1
G-protein signaling, coupled to								
cyclic nucleotide second								
messenger	0	0	0	0	0	0	-1,7225	-1
behavior	0	0	0	0	0	0	-1,7463	-1
proteinaceous extracellular								
matrix	0	0	0	0	0	0	-1,7463	-1
voltage-gated channel activity	0	0	0	0	0	0	-1,7826	-1
voltage-gated ion channel								
activity	0	0	0	0	0	0	-1,7826	-1
voltage-gated cation channel								
activity	0	0	0	0	0	0	-1,8125	-1
nucleoside monophosphate								
metabolic process	0	0	0	0	0	0	-1,8154	-1
carbohydrate binding	0	0	0	0	0	0	-1,8296	-1
endopeptidase regulator activity	0	0	0	0	0	0	-1,8635	-1
generation of neurons	0	0	0	0	0	0	-1,898	-1
extracellular space	0	0	0	0	0	0	-1,898	-1
cAMP metabolic process	0	0	0	0	0	0	-1,9804	-1
central nervous system neuron								
differentiation	0	0	0	0	0	0	-2,0087	-1
gated channel activity	0	0	0	0	0	0	-2,012	-1
neurogenesis	0	0	0	0	0	0	-2,0459	-1
endopeptidase inhibitor activity	0	0	0	0	0	0	-2,1833	-1
intermediate filament	0	0	0	0	0	0	-2,2858	-1
enzyme inhibitor activity	0	0	0	0	0	0	-2,4774	-1
peptidase inhibitor activity	0	0	0	0	0	0	-2,5053	-1
peptidase regulator activity	0	0	0	0	0	0	-2,5216	-1
cation channel activity	0	0	0	0	0	0	-2,5345	-1
cyclic nucleotide metabolic								
process	0	0	0	0	0	0	-2,7631	-1
neuron differentiation	0	0	0	0	0	0	-2,8573	-1
intrinsic to plasma membrane	0	0	0	0	0	0	-4,2757	-1
integral to plasma membrane	0	0	0	0	0	0	-4,3585	-1
di-, tri-valent inorganic cation								
transport	0	0	0	0	-1,3293	-1	0	0
intermediate filament								
cytoskeleton	0	0	0	0	-1,3433	-1	-2,3791	-1
central nervous system								
development	0	0	0	0	-1,3788	-1	0	0
substrate-specific channel								
activity	0	0	0	0	-1,4106	-1	-1,8154	-1

ion channel activity	0	0	0	0	-1,4457	-1	-1,6267	-1
cell adhesion	0	0	0	0	-1,4831	-1	0	0
biological adhesion	0	0	0	0	-1,4831	-1	0	0
passive transmembrane								
transporter activity	0	0	0	0	-1,6201	-1	-1,8396	-1
channel activity	0	0	0	0	-1,6201	-1	-1,8396	-1
metal ion transport	0	0	0	0	-1,6206	-1	0	0
membrane	0	0	0	0	-2,4791	-1	-3,5516	-1
membrane part	0	0	0	0	-5,0458	-1	-8,9586	-1
multicellular organismal process	0	0	0	0	-9,7799	-1	-12,509	-1
transporter activity	0	0	-1,4404	-1	0	0	0	0
intrinsic to membrane	0	0	-1,5018	-1	-7,8794	-1	-13,745	-1
extracellular matrix	0	0	-1,5018	-1	0	0	-1,8852	-1
lipid catabolic process	0	0	-1,5157	-1	0	0	0	0
cellular amino acid metabolic								
process	0	0	-1,5301	-1	0	0	0	0
integral to membrane	0	0	-1,5822	-1	-8,4698	-1	-12,388	-1
oxidation reduction	0	0	-1,7047	-1	0	0	0	0
molecular transducer activity	0	0	-1,7195	-1	-27,1	-1	-20,257	-1
signal transducer activity	0	0	-1,7195	-1	-27,1	-1	-20,257	-1
extracellular region part	0	0	-1,9564	-1	0	0	-3,5107	-1
cellular_component	0	0	-2,5964	-1	0	0	0	0
receptor activity	0	0	-3,5814	-1	-27,754	-1	-27,108	-1
extracellular region	0	0	-4,1267	-1	-2,5269	-1	-7,9136	-1
sensory perception of chemical								
stimulus	0	0	-20,234	-1	-34,324	-1	-55,593	-1
sensory perception of smell	0	0	-21,53	-1	-34,599	-1	-54,658	-1
olfactory receptor activity	0	0	-22,162	-1	-35,807	-1	-53,987	-1
system process	-1,4208	-1	-13,002	-1	-20,959	-1	-31,22	-1
signaling	-1,4741	-1	0	0	-13,149	-1	-7,9747	-1
signal transduction	-1,5096	-1	0	0	-14,775	-1	-9,2749	-1
signal transmission	-1,647	-1	0	0	-13,777	-1	-9,5129	-1
signaling process	-1,6522	-1	0	0	-13,866	-1	-9,6003	-1
neurological system process	-1,9209	-1	-16,365	-1	-23,664	-1	-34,51	-1
signaling pathway	-2,1269	-1	-1,4088	1	-14,559	-1	-7,2668	-1
transmembrane receptor								
activity	-2,1269	-1	-10,996	-1	-31,053	-1	-42,359	-1
cognition	-2,1269	-1	-18,318	-1	-28,516	-1	-38,959	-1
cell surface receptor linked								
signaling pathway	-2,4265	-1	0	0	-20,728	-1	-21,947	-1
sensory perception	-2,4265	-1	-18,996	-1	-33,599	-1	-44,273	-1
G-protein coupled receptor								
protein signaling pathway	-3,7687	-1	-10,55	-1	-34,324	-1	-41,678	-1
G-protein coupled receptor								
activity	-3,9868	-1	-16,365	-1	-33,599	-1	-49,893	-1

All the enriched immune-related GO categories (the order is the same as in Supplementary Figure 5)

	Cluster 1		Cluster 2		Cluster 4		Cluster 6	
log10	log10		log10		log10		log10	
adj. p-value	Enriched (1),	adj. p-value	Enriched (1),	adj. p-value	Enriched (1),	adj. p-value	Enriched (1),	adj. p-value
	depleted (-1)		depleted (-1)		depleted (-1)		depleted (-1)	

T cell differentiation in the thymus	-4,3279	1	-2,3982	1	0	0	0	0
T cell differentiation	-3,6328	1	-7,6655	1	0	0	0	0
T cell activation	-3,4307	1	-14,227	1	0	0	-1,4049	1
lymphocyte differentiation	-3,3074	1	-10,231	1	0	0	-1,6415	1
immune system development	-3,3034	1	-10,611	1	0	0	-1,7945	1
positive regulation of leukocyte mediated immunity	-2,5732	1	0	0	0	0	0	0
positive regulation of lymphocyte mediated immunity	-2,5732	1	0	0	0	0	0	0
hemopoiesis	-2,477	1	-10,057	1	0	0	-1,8885	1
positive regulation of leukocyte mediated cytotoxicity	-2,4468	1	0	0	0	0	-1,7334	1
lymphocyte activation	-2,4265	1	-16,365	1	0	0	-2,1007	1
regulation of interleukin-2 biosynthetic process	-2,4265	1	-2,1499	1	0	0	0	0
leukocyte differentiation	-2,3826	1	-11,08	1	0	0	-1,4147	1
thymic T cell selection	-2,3451	1	-2,708	1	0	0	0	0
interleukin-2 biosynthetic process	-2,3451	1	-1,9031	1	0	0	0	0
T cell selection	-2,1269	1	-3,8745	1	0	0	0	0
regulation of interleukin-2 production	-2,1269	1	-2,2057	1	0	0	0	0
regulation of leukocyte mediated cytotoxicity	-2,1269	1	0	0	0	0	-1,8039	1
regulation of NK T cell activation	-2,1269	1	0	0	0	0	0	0
positive regulation of NK T cell activation	-2,1269	1	0	0	0	0	0	0
NK T cell activation	-2,1269	1	0	0	0	0	0	0
positive regulation of immune effector process	-2,1269	1	0	0	0	0	0	0
leukocyte activation	-2,0971	1	-16,222	1	0	0	-2,3256	1
positive regulation of interleukin-2 biosynthetic process	-2,0971	1	-3,0661	1	0	0	0	0
interleukin-2 production	-1,9397	1	-1,8398	1	0	0	0	0
regulation of lymphocyte mediated immunity	-1,9209	1	-1,5508	1	0	0	-2,5053	1
lymphocyte apoptosis	-1,9209	1	0	0	0	0	-1,8296	1
lymphocyte mediated immunity	-1,8893	1	-2,1593	1	0	0	-1,6897	1
leukocyte mediated cytotoxicity	-1,8893	1	-1,5397	1	0	0	-1,352	1
interleukin-4 biosynthetic process	-1,8893	1	0	0	0	0	0	0
negative regulation of thymocyte apoptosis	-1,8893	1	0	0	0	0	0	0
positive regulation of interleukin-4 biosynthetic process	-1,8893	1	0	0	0	0	0	0
regulation of interleukin-4 biosynthetic process	-1,8893	1	0	0	0	0	0	0

immune system process	-1,7996	1	-17,807	1	0	0	-2,1484	1
regulation of leukocyte mediated immunity	-1,7704	1	-1,3089	1	0	0	-1,9967	1
T cell apoptosis	-1,7175	1	0	0	0	0	0	0
regulation of lymphocyte differentiation	-1,6012	1	-2,5111	1	0	0	0	0
regulation of lymphocyte activation	-1,5401	1	-7,3045	1	-1,3788	1	0	0
leukocyte mediated immunity	-1,5378	1	-2,4313	1	0	0	0	0
thymocyte apoptosis	-1,5096	1	0	0	0	0	0	0
regulation of thymocyte apoptosis	-1,5096	1	0	0	0	0	0	0
negative regulation of T cell apoptosis	-1,4208	1	0	0	0	0	0	0
regulation of leukocyte activation	-1,4106	1	-6,342	1	0	0	0	0
T cell homeostasis	-1,3882	1	0	0	0	0	0	0
immune effector process	-1,3678	1	-2,4653	1	0	0	-1,6083	1
gamma-delta T cell differentiation	-1,3287	1	0	0	0	0	0	0
gamma-delta T cell activation	-1,3287	1	0	0	0	0	0	0
regulation of immune effector process	-1,3059	1	-1,7441	1	0	0	0	0
regulation of immune system process	0	0	-8,5901	1	0	0	-2,0957	1
regulation of T cell activation	0	0	-7,7399	1	0	0	0	0
positive regulation of T cell activation	0	0	-6,5607	1	-1,4457	1	0	0
positive regulation of immune system process	0	0	-6,4012	1	0	0	-1,9232	1
positive regulation of lymphocyte activation	0	0	-5,9586	1	-1,3036	1	0	0
positive regulation of leukocyte activation	0	0	-5,5171	1	-1,3433	1	0	0
T cell proliferation	0	0	-4,7545	1	0	0	0	0
alpha-beta T cell activation	0	0	-4,6234	1	0	0	0	0
lymphocyte proliferation	0	0	-4,1506	1	0	0	-1,334	1
alpha-beta T cell differentiation	0	0	-4,0799	1	0	0	0	0
leukocyte proliferation	0	0	-3,994	1	0	0	0	0
T cell receptor complex	0	0	-3,7161	1	0	0	0	0
regulation of T cell receptor signaling pathway	0	0	-3,6884	1	0	0	0	0
regulation of immune response	0	0	-3,6443	1	0	0	-2,4763	1
T cell receptor signaling pathway	0	0	-3,5757	1	0	0	0	0
immune response-activating signal transduction	0	0	-3,2524	1	0	0	-1,9539	1
positive regulation of T cell proliferation	0	0	-3,2284	1	0	0	0	0
regulation of antigen receptor-mediated signaling pathway	0	0	-3,2186	1	0	0	0	0
alpha-beta T cell receptor complex	0	0	-3,1469	1	0	0	0	0

regulation of T cell proliferation	0	0	-3,142	1	0	0	0	0
antigen receptor-mediated								
signaling pathway	0	0	-3,1309	1	0	0	-2,7911	1
positive regulation of alpha-beta								
T cell activation	0	0	-3,0213	1	0	0	0	0
immune response-regulating								
signaling pathway	0	0	-3,0132	1	0	0	-2,3854	1
immune response	0	0	-3,0084	1	0	0	-2,1422	1
regulation of alpha-beta T cell								
activation	0	0	-2,9177	1	0	0	0	0
positive regulation of								
lymphocyte proliferation	0	0	-2,9177	1	0	0	0	0
positive regulation of leukocyte								
proliferation	0	0	-2,788	1	0	0	0	0
regulation of lymphocyte								
proliferation	0	0	-2,7758	1	0	0	0	0
negative regulation of T cell								
receptor signaling pathway	0	0	-2,7728	1	0	0	0	0
negative regulation of antigen								
receptor-mediated signaling								
pathway	0	0	-2,7728	1	0	0	0	0
MHC class I peptide loading								
complex	0	0	-2,685	1	0	0	0	0
regulation of leukocyte								
proliferation	0	0	-2,685	1	0	0	0	0
positive regulation of immune								
response	0	0	-2,6328	1	0	0	-2,4758	1
immune response-activating cell								
surface receptor signaling								
pathway	0	0	-2,5341	1	0	0	-2,0443	1
regulation of T cell								
differentiation	0	0	-2,5341	1	0	0	0	0
immune response-regulating cell								
surface receptor signaling								
pathway	0	0	-2,3334	1	0	0	-2,2149	1
positive regulation of alpha-beta								
T cell differentiation	0	0	-2,3266	1	0	0	0	0
myeloid leukocyte								
differentiation	0	0	-2,3055	1	0	0	0	0
positive regulation of T cell								
differentiation	0	0	-2,2867	1	0	0	0	0
positive regulation of interleukin-								
4 production	0	0	-2,1949	1	0	0	0	0
positive regulation of								
lymphocyte differentiation	0	0	-2,1331	1	0	0	0	0
negative thymic T cell selection	0	0	-2,0402	1	0	0	0	0
regulation of alpha-beta T cell								
differentiation	0	0	-1,9973	1	0	0	0	0
regulation of myeloid leukocyte								
differentiation	0	0	-1,9297	1	0	0	0	0
adaptive immune response	0	0	-1,8973	1	0	0	-1,3477	1

adaptive immune response based on somatic recombination of immune receptors built from immunoglobulin superfamily domains	0	0	-1,8973	1	0	0	-1,3477	1
antigen processing and presentation of endogenous peptide antigen via MHC class I CD8-positive, alpha-beta T cell differentiation	0	0	-1,8833	1	0	0	0	0
negative T cell selection	0	0	-1,8833	1	0	0	0	0
negative regulation of immune system process	0	0	-1,88	1	0	0	0	0
activation of immune response	0	0	-1,7441	1	0	0	0	0
interleukin-1 beta production	0	0	-1,6446	1	0	0	0	0
regulation of interleukin-1 beta production	0	0	-1,6446	1	0	0	0	0
antigen processing and presentation	0	0	-1,5822	1	0	0	0	0
mast cell activation	0	0	-1,5729	1	0	0	0	0
activated T cell proliferation	0	0	-1,5651	1	0	0	0	0
regulation of interleukin-1 production	0	0	-1,5381	1	0	0	0	0
antigen processing and presentation of peptide antigen via MHC class I	0	0	-1,5381	1	0	0	0	0
regulation of production of molecular mediator of immune response	0	0	-1,4698	1	0	0	0	0
regulation of adaptive immune response based on somatic recombination of immune receptors built from immunoglobulin superfamily domains	0	0	-1,4664	1	0	0	-2,3216	1
regulation of adaptive immune response	0	0	-1,4664	1	0	0	-2,3216	1
interleukin-1 production	0	0	-1,4474	1	0	0	0	0
lymphocyte costimulation	0	0	-1,381	1	0	0	0	0
T cell costimulation	0	0	-1,381	1	0	0	0	0
antigen processing and presentation of endogenous antigen	0	0	-1,381	1	0	0	0	0
antigen processing and presentation of endogenous peptide antigen	0	0	-1,381	1	0	0	0	0
positive regulation of alpha-beta T cell proliferation	0	0	-1,381	1	0	0	0	0
T cell mediated immunity	0	0	-1,3582	1	0	0	-2,5471	1
natural killer cell activation involved in immune response	0	0	-1,3539	1	0	0	0	0
negative regulation of interleukin-1 beta production	0	0	-1,3539	1	0	0	0	0

negative regulation of T cell activation	0	0	0	0	0	0 -1,3809	1
positive regulation of T cell mediated immunity	0	0	0	0	0	0 -1,3343	1