

Targeting of Cdc42 GTPase in regulatory T cells unleashes anti-tumor T cell immunity

Supplemental Methods

Mice

Foxp3^{YFP-Cre} (016959, RRID:IMSR_JAX:016959), *Foxp3^{eGFP-Cre-ERT2}* (016961, RRID:IMSR_JAX:016961), *Rosa26^{eYFP}* (006148, RRID:IMSR_JAX:006148), C57BL/6/J (000664, RRID:IMSR_JAX:000664), and *Rag1^{-/-}* (002216, RRID:IMSR_JAX:002216) mice were purchased from Jackson laboratories. *Cdc42^{Flox/Flox}* mice were generated as described previously (Supplemental reference 1). *Cdc42^{Flox/Flox}* mice were bred with *Foxp3^{YFP-Cre}* mice in our animal facility to generate *Cdc42^{Flox/+} Foxp3^{YFP-Cre}* mice. *Foxp3^{eGFP-Cre-ERT2}* mice were bred with *Rosa26^{eYFP}* mice to generate *Foxp3^{eGFP-Cre-ERT2} Rosa26^{eYFP}* mice. *Foxp3^{eGFP-Cre-ERT2} Rosa26^{eYFP}* mice were then bred with *Cdc42^{Flox/Flox}* mice to generate *Cdc42^{Flox/+} Foxp3^{eGFP-Cre-ERT2} Rosa26^{eYFP}* mice. NSGS mice were obtained from the Comprehensive Mouse and Cancer Core at the Cincinnati Children's Hospital Medical Center. NSGS mice engrafted with human CD34⁺ hematopoietic stem cells were generated as described previously.¹⁸ Unless otherwise noted, 6 to 8 weeks old male and female mice were used. Groups of n = 3-8 selected through statistical power calculations were used on independent occasions. The first authors were aware of the group allocation.

All mice were housed under specific pathogen-free conditions in the animal facility at the Cincinnati Children's Hospital Research Foundation in compliance with the Cincinnati Children's Hospital Medical Center Animal Care and Use Committee protocol.

Tumor cell lines

Mouse colon adenocarcinoma GFP-tagged tumor cell line MC38 and human colon adenocarcinoma tumor cell line HCT116 were generously provided by Dr. Joseph Palumbo at the Cincinnati Children's Hospital Medical Center. Mouse pancreatic cancer cell line KPC was generously provided by Dr. Matthew Flick at the Cincinnati Children's Hospital Medical Center. All tumor cell lines were grown in DMEM with 10% fetal calf serum (FCS). Regular mycoplasma testing was carried out on all cells maintained in culture.

Flow cytometry

Cell surface proteins were stained for 20 min at 4 °C with the following antibodies: CD45.1 (BioLegend, 110714, Clone ID: A20, RRID:AB_313503), CD45.2 (BioLegend, 109825, Clone ID: 104, RRID:AB_893351), ICOS (eBioscience, 12-9942-81, Clone ID: 7E.17G9, RRID:AB_466273), PD-1 (eBioscience, 12-9985-81, Clone ID: J43, RRID:AB_466294), GITR (eBioscience, 25-5874-80, Clone ID: DTA-1, RRID:AB_10544396), CTLA-4 (eBioscience, 12-1522-82, Clone ID: UC10-4B9, RRID:AB_465879), CD39 (eBioscience, 25-0391-82, Clone ID: 24DMS-1, RRID:AB_1210766), CD73 (eBioscience, 25-0731-80, Clone ID: TY/11.8, RRID:AB_10870789), CD4 (eBioscience, 48-0042-82, Clone ID: RM4-5, RRID:AB_1272194; eBioscience, 48-0049-42, Clone ID: RPA-T4, RRID: AB_1272057), CD8α (eBioscience, 25-0081-82, Clone ID: 53-6.7, RRID:AB_469584; eBioscience, 25-0086-42, Clone ID: OKT8, RRID: AB_2637437), and CD45 (eBioscience, MHCD4520, Clone ID: HI30, RRID: AB_10392555). Intracellular proteins were stained for 60 min at room temperature after permeabilization and fixation with BD Cytofix/Cytoperm Plus (BD Biosciences, 555028) using the following antibodies: IL-4 (eBioscience, 12-7041-82, Clone ID: 11B11, RRID:AB_466156), IL-17A (BD Pharmingen, 559502, Clone ID: TC11-18H10, RRID:AB_397256), IFN-γ (BioLegend, 505810, 505826, Clone ID: XMG1.2, RRID:AB_315404, RRID:AB_2295770; BioLegend, 502511, Clone ID: 4S.B3, RRID: AB_315236), Foxp3 (eBioscience, 17-5773-82, Clone ID: FJK-16s, RRID:AB_469457; eBioscience, 12-4777-42, Clone ID: 236A/E7, RRID: AB_1944444), GATA-3 (eBioscience, 25-9966-42, Clone ID: TWAJ, RRID:AB_2573568), CAI (Abcam, ab267475, Clone ID: EPR23232-286), and goat anti-rabbit IgG (Abcam, ab150077).

Bisulfite Pyrosequencing of Methylation of Foxp3 Enhancer

The primers used for bisulfite pyrosequencing are as the following:

mFoxp3_assay1_NF: 5'-TTTGTGTTTGAGATTTAAAATT-3'; mFoxp3_assay1_NR: /5Biosg/5'-AAAAATAAA
CTAATCTATCCTATAACC-3'; mFoxp3_assay1_LF: 5'-TATTTTTGGGTTTGGGATATTA-3'; mFoxp3_
assay1_LR: 5'-ACAAATAATCTACCCCACAAATTTC-3'; mFoxp3_assay1_S2: 5'-GGGTTTTTGGTATTAA
GAAAG-3'; mFoxp3_assay1_S3: 5'-GGGTTTGATGGTAGTTAGATGG-3'; mFoxp3_assay1_S4: 5'-AGTATT
TATATTATTTATTTGGG-3'; mFoxp3_assay2_NF: 5'-GGTTAGGATAGATTAGTTATTTT-3'; mFoxp3_
assay2_NR: /5Biosg/5'-CCAACCTCCTACACTATCTATTAAAC-3'; mFoxp3_assay2_LF: 5'-TTTATATTATTT
ATTTGGGTTATT-3'; mFoxp3_assay2_LR: 5'-ATAACTATATAATACATCAATACATTCTCA-3'; mFoxp3_

assay2_S2: 5'-GTTTTTTTTTTTTTTGTTG-3'; mFoxp3_assay2_S3: 5'-GGTTGTGATAATAGGGTTAG ATGTAG-3'; and mFoxp3_assay2_S4: 5'-GTTTTAAGAAATAGTTAAATAGG-3').¹⁵

Quantitative Real-time RT-PCR Analysis

The primers used for quantitative real-time RT-PCR are as the following:

1) CAI: Forward 5' GCGTTTGATGAAGGTTGGT 3'

Reverse 5' TCACCCAGGTCACACTTCA 3'

2) DNMT3a: Forward 5' ACTTGGAGAACGGAGTGAA 3'

Reverse 5' GGATTGATGTTGGTCTGCT 3'

3) TET1: Forward 5' ATCATTCCAGACCGCAAGAC 3'

Reverse 5' AATCCATGCAACAGGTGACA 3'

4) TET2: Forward 5' AACCTGGCTACTGTCATTGCTCCA 3'

Reverse 5' ATGTTCTGCTGGTCTCTGTGGAA 3'

5) TET3: Forward 5' GTCTCCCCAGTCCTACCTCCG 3'

Reverse 5' GTCAGTGCCCCACGCTTCA 3'

6) 18S: Forward 5' GTAACCCGTTGAACCCCATT 3'

Reverse 5' CCATCCAATCGGTAGTAGCG 3'

RNA-seq

RNA was isolated from Treg cells with the RNeasy Mini Kit (Qiagen). The 75bp single-end RNA-seq was performed by the Genomics, Epigenomics, and Sequencing Core at the University of Cincinnati College of Medicine. Sequence reads were aligned to the reference mouse genome (mm10) using the TopHat aligner. Reads aligning to each known transcript were counted.²⁸ The R package EnhancedVolcano was used to plot volcano plots. The Pre-Ranked test in GSEA 4.1.0 was used to probe pathways and molecular functions.

Serum CASIN Detection

Blood was collected 7 hrs after the first CASIN injection and 14 hrs after the second CASIN injection into tumor-bearing mice. Serum was isolated using serum separator tubes. All serum samples were analyzed with Waters Quattro Micro UPLC system coupled to electrospray tandem mass spectrometry (ESIMS/MS). The separation was conducted on reverse phase Acquity® UPLC BEH C18 columns (100 × 0.1 mm. 1.7 µm) (Waters Corp. 186007488). The mobile phase was composed of two solvents: solvent A consisted of 50 ml/l acetonitrile and 950 ml/l water containing 2 mM ammonium acetate and 0.1% formic acid (v/v); Solvent B consisted of acetonitrile. The gradient conditions were used as described below with a flow rate of 0.1 ml/min. At time zero 85% A to 15% B, at 7 min 0% A to 100% B, keep this condition for 2 min and then change to 85% A to 15% B and keep for 3 min. The total run time was 15 min. 10 µl of sample was injected on column for analysis. Optimal MS signal for the ion of CASIN was achieved in negative ion mode using the following instrument settings: capillary voltage 3.0 kV; cone voltage 45 V, extractor voltage 2 V; RF lens voltage 0.1 V; entrance -1; exit 0; source temperature 120°C; desolvation temperature 400 °C; desolvation gas flow 600 l/hr; inter-channel delay 0.02 sec; inter-scan time 0.05 sec; dwell time 0.2 sec; helium was used as the collision gas and gas cell parani was about 3.6e-3. Optimal collision energy for CASIN was 30 V. CASIN was detected and quantified by monitoring the MRM transition ion m/z 305/244 under negative ESI mode. Data were acquired and processed with Masslynx 4.1 software (Waters Corp.).¹⁷

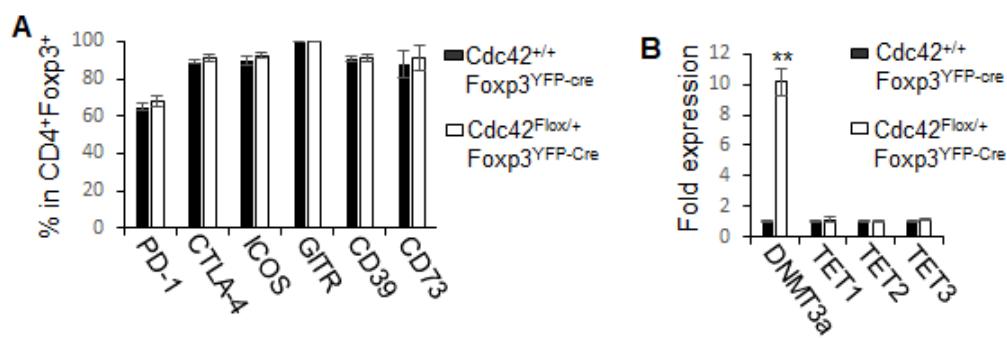
DSS-induced Colitis

Colitis was induced in 8–10 week old mice by giving the mice 2.2% DSS (M.W. 36,000–50,000) in drinking water for 5 days followed by normal water.¹⁵ Mouse body weight was measured daily. The mice were sacrificed after 8 days and the colon was harvested for flow cytometry analysis.

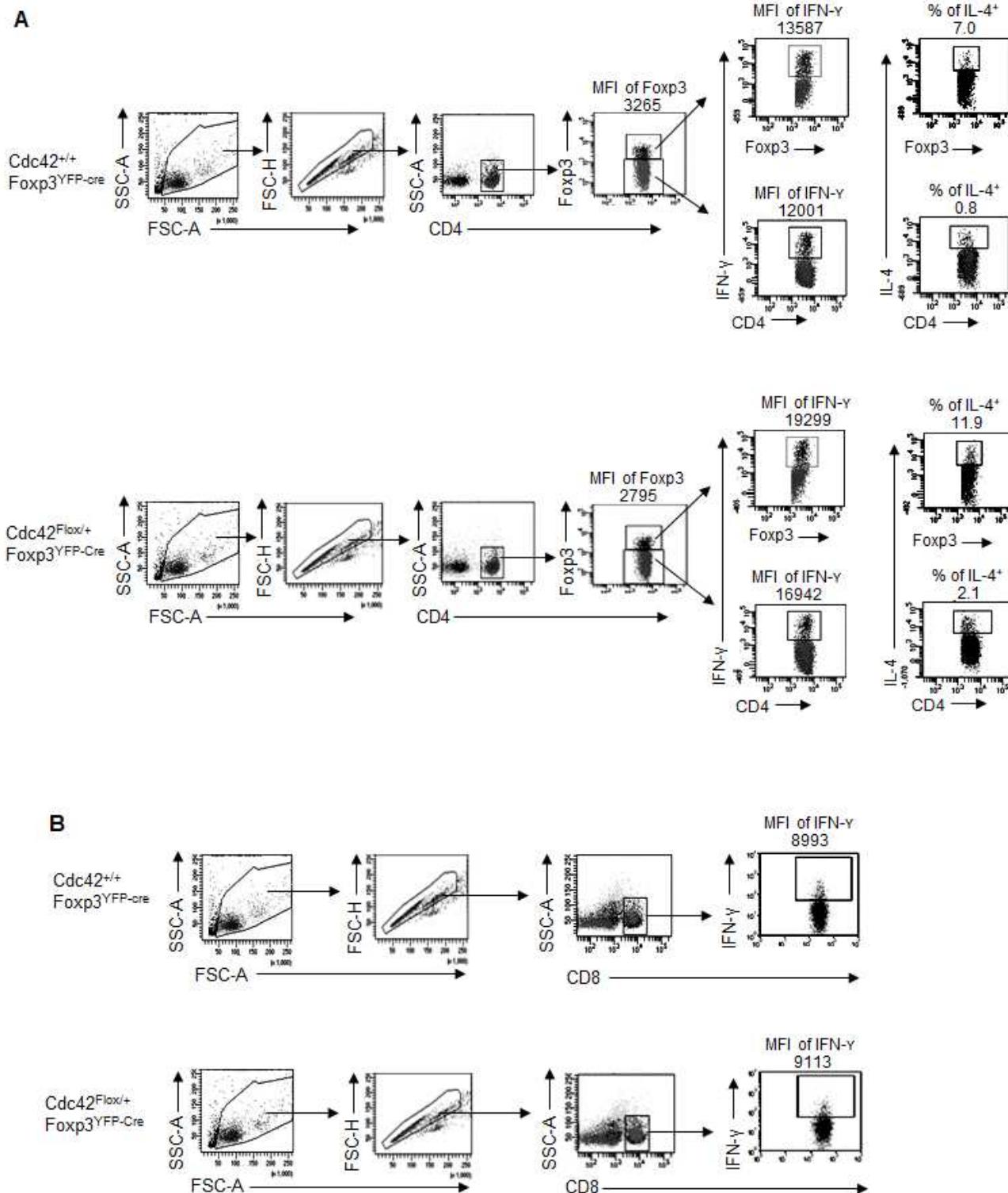
Supplemental References

1. Yang L, Wang L, Kalfa TA, *et al.* Cdc42 critically regulates the balance between myelopoiesis and erythropoiesis *Blood* 2007; 110:3853-61. doi: 10.1182/blood-2007-03-079582. PMID: 17702896

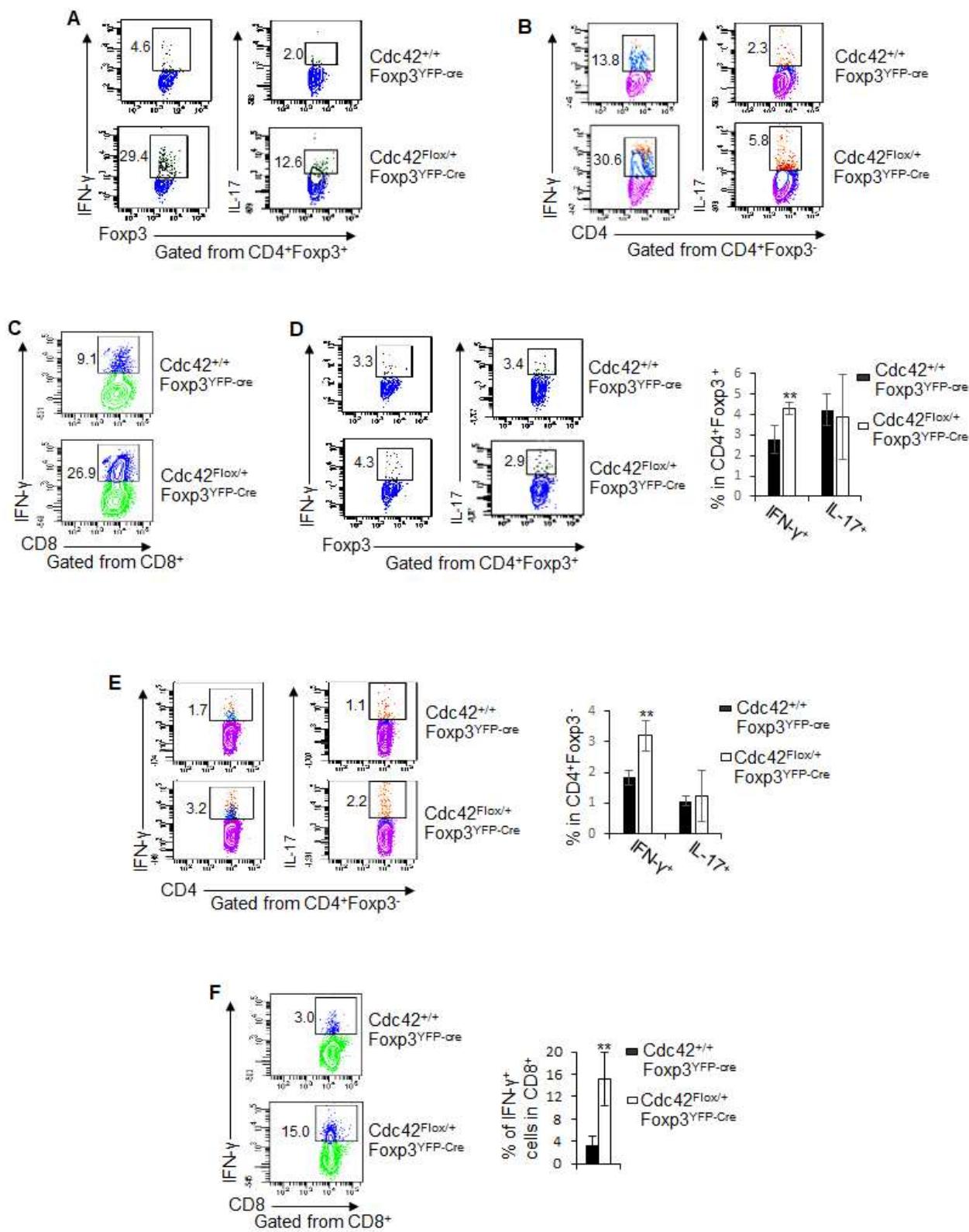
Supplemental Figures



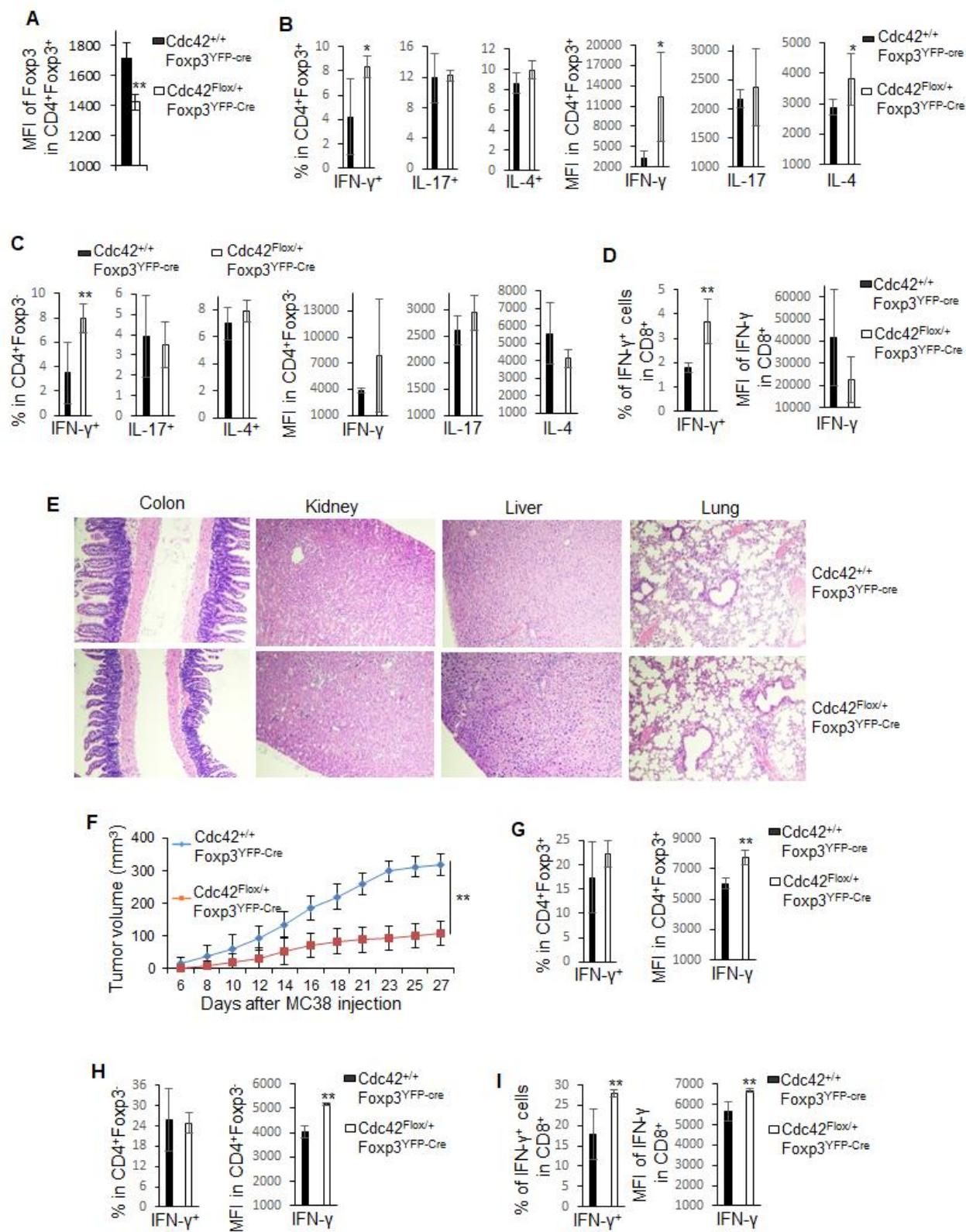
Supplemental Figure 1. *Cdc42* heterozygosity in Treg cells does not affect T cell functional markers but increases *DNA methyltransferase DNMT3a*. (A) The expression of the indicated T cell functional markers was analyzed by flow cytometry. (B) The expression of *DNMT3a* and *DNA demethylases TET1, TET2* and *TET3* in *Cdc42^{+/+}Foxp3^{YFP-Cre}* and *Cdc42^{Flx/+}Foxp3^{YFP-Cre}* Treg cells was analyzed by quantitative real-time RT-PCR. Error bars indicate SD of triplicates. Data are from one experiment with four mice pooled. **p < 0.01.



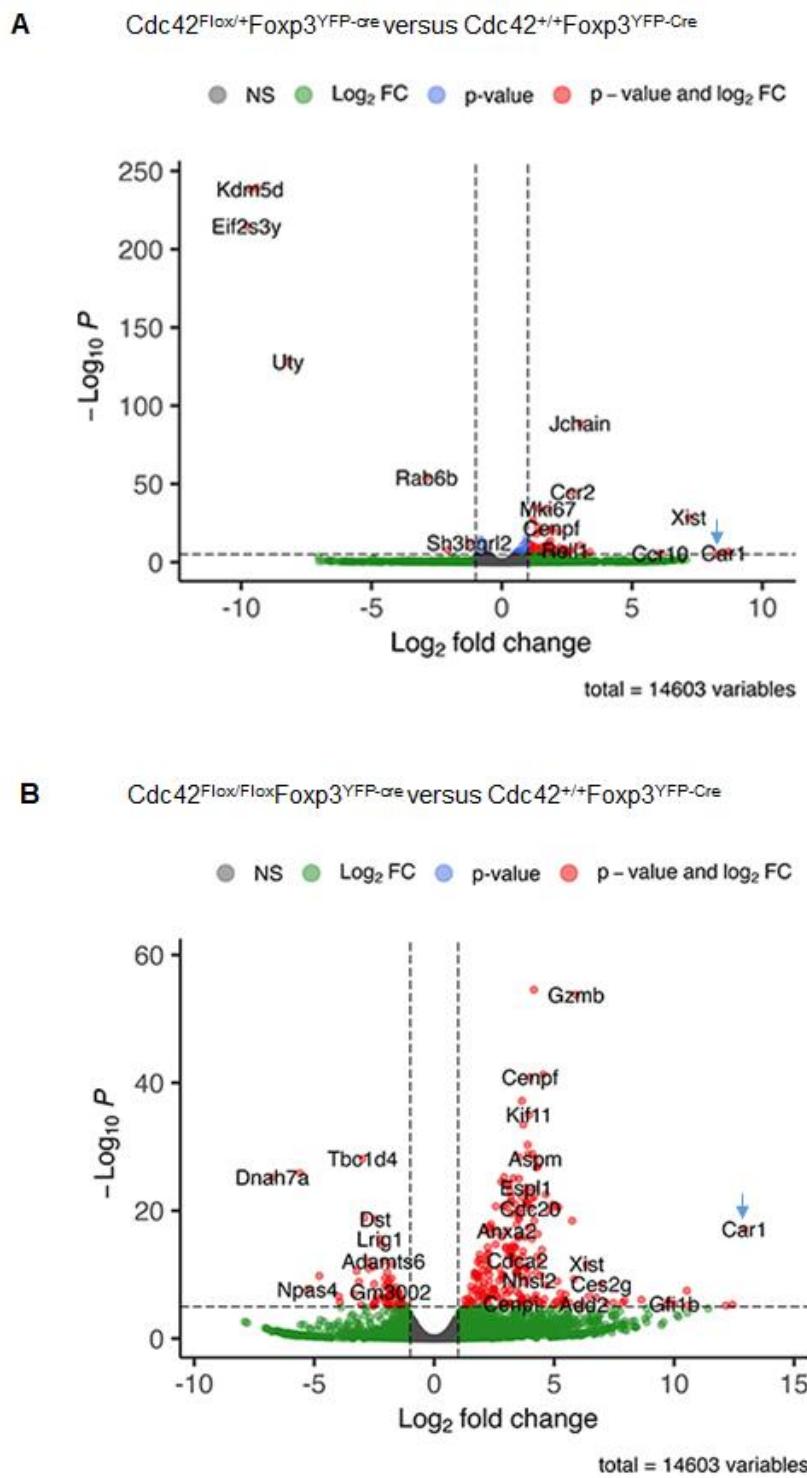
Supplemental Figure 2. Gating strategy and representative flow cytograms of Treg cells and CD4⁺ and CD8⁺ effector T cells expressing IFN- γ or IL-4. MFI: Mean fluorescence intensity.



Supplemental Figure 3. *Cdc42* heterozygosity induces instability in both tumor-infiltrating and splenic Treg cells in tumor-bearing mice. *Cdc42^{+/+}Foxp3^{YFP-Cre}* and *Cdc42^{Floxed/+}Foxp3^{YFP-Cre}* mice were inoculated with MC38 cells. Tumor (A-C) and the spleen (D-F) were dissected and the percentages of IFN- γ ⁺ and/or IL-17⁺ cells in tumor-infiltrating (A-C) and splenic (D-F) Treg cells (A, D), CD4⁺ (B, E) and CD8⁺ (C, F) effector T cells were analyzed by flow cytometry. (A-C) Representative flow cytograms of tumor-infiltrating Treg cells (A) and CD4⁺ (B) and CD8⁺ (C) effector T cells expressing IFN- γ or IL-17. The numbers indicate percentages of tumor-infiltrating Treg cells and CD4⁺ and CD8⁺ effector T cells expressing IFN- γ or IL-17. (D-F) Left, representative flow cytograms of splenic Treg cells (D) and CD4⁺ (E) and CD8⁺ (F) effector T cells expressing IFN- γ or IL-17. The numbers indicate percentages of splenic Treg cells and CD4⁺ and CD8⁺ effector T cells expressing IFN- γ or IL-17. Right, average percentages of splenic Treg cells and CD4⁺ and CD8⁺ effector T cells expressing IFN- γ or IL-17. Error bars indicate SD of 6 mice. Data are representative of two independent experiments. *p < 0.05; **p < 0.01.



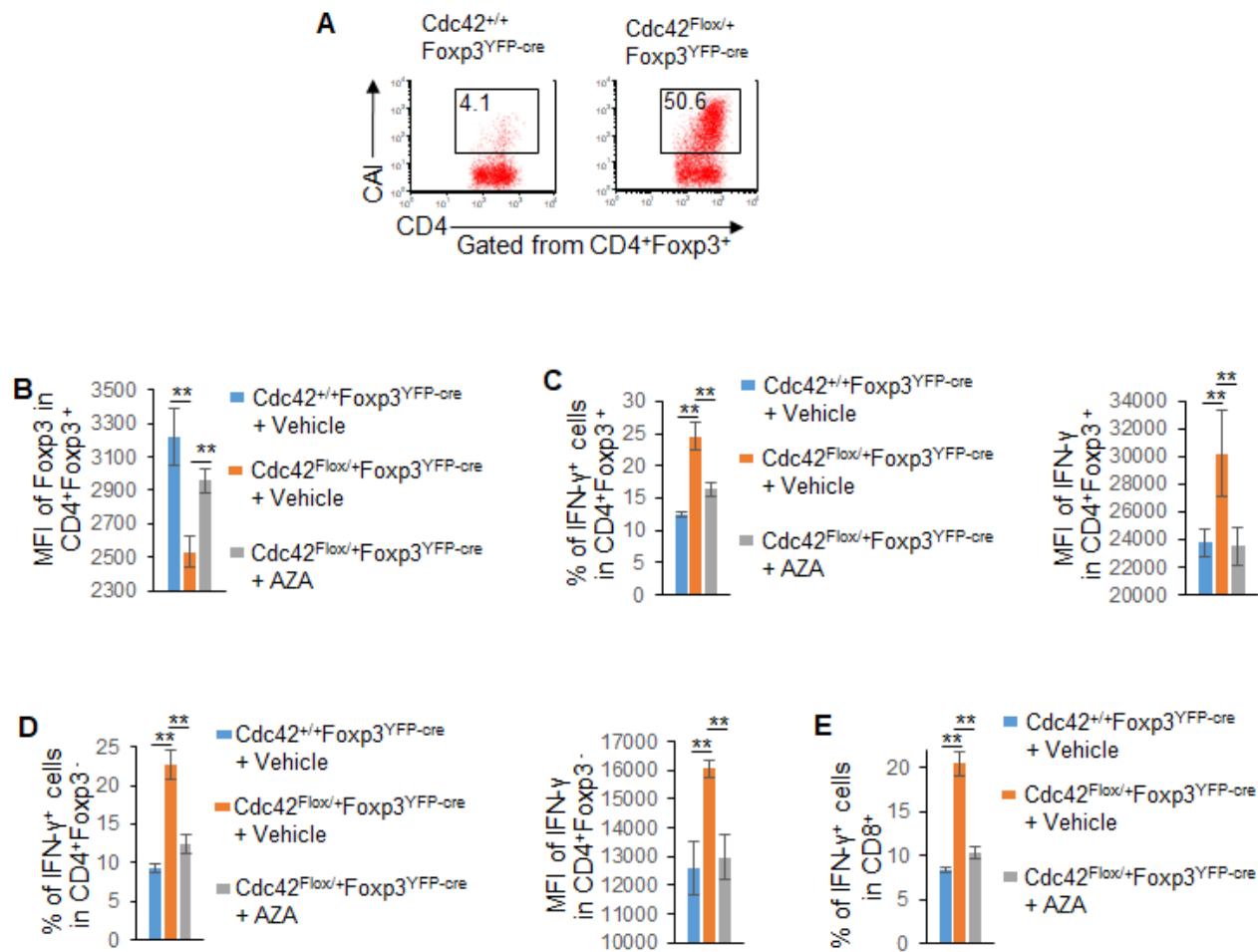
Supplemental Figure 4. *Cdc42* heterozygosity in Treg cells induces Treg cell instability and anti-tumor T cell immunity without causing autoimmunity in aged (12-18 months old) mice. (A-D) The spleen from *Cdc42^{+/+}* *Foxp3^{YFP-Cre}* and *Cdc42^{Flx/+}* *Foxp3^{YFP-Cre}* mice was subjected to flow cytometry analysis of the expression of Foxp3 (MFI) in Treg cells (A) and the expression (percentages and MFI) of IFN-γ, IL-17 and/or IL-4 in Treg cells (B), CD4⁺ (C) and CD8⁺ (D) effector T cells. Of note, MFI of IFN-γ, IL-17 and IL-4 was analyzed in IFN-γ⁺, IL-17⁺ and IL-4⁺ cells, respectively. (E) The indicated organs from *Cdc42^{+/+}* *Foxp3^{YFP-Cre}* and *Cdc42^{Flx/+}* *Foxp3^{YFP-Cre}* mice were subjected to H&E staining. (F-I) *Cdc42^{+/+}* *Foxp3^{YFP-Cre}* and *Cdc42^{Flx/+}* *Foxp3^{YFP-Cre}* mice were inoculated with MC38 cells. Tumor volume was recorded (F). The expression (percentages and MFI) of IFN-γ in tumor-infiltrating Treg cells (G) and CD4⁺ (H) and CD8⁺ (I) effector T cells were analyzed by flow cytometry. Of note, MFI of IFN-γ was analyzed in IFN-γ⁺ cells. Error bars indicate SD of 5 mice. *p < 0.05; **p < 0.01. MFI: Mean fluorescence intensity.



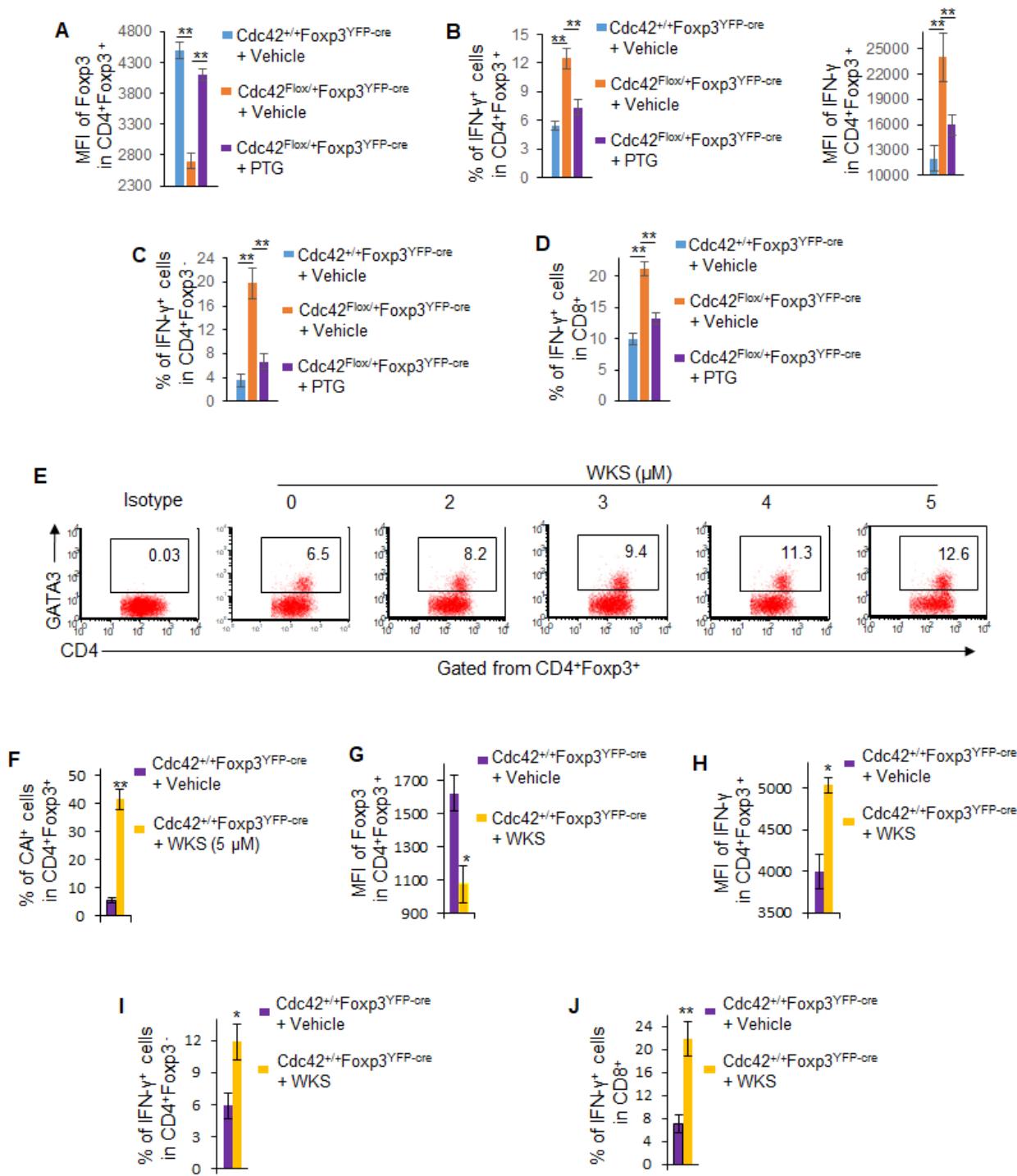
Supplemental Figure 5. Global gene expression profile of Treg cells bearing heterozygous or homozygous *Cdc42* deletion. The R package EnhancedVolcano was used to plot volcano plots of gene expression changes

in $Cdc42^{Flox/+} Foxp3^{YFP-cre}$ (A) and $Cdc42^{Flox/Flox} Foxp3^{YFP-cre}$ (B) Treg cells in comparison with $Cdc42^{+/+} Foxp3^{YFP-}$

Cre Treg cells. Blue arrows points to *Car1* gene that encodes CAI.

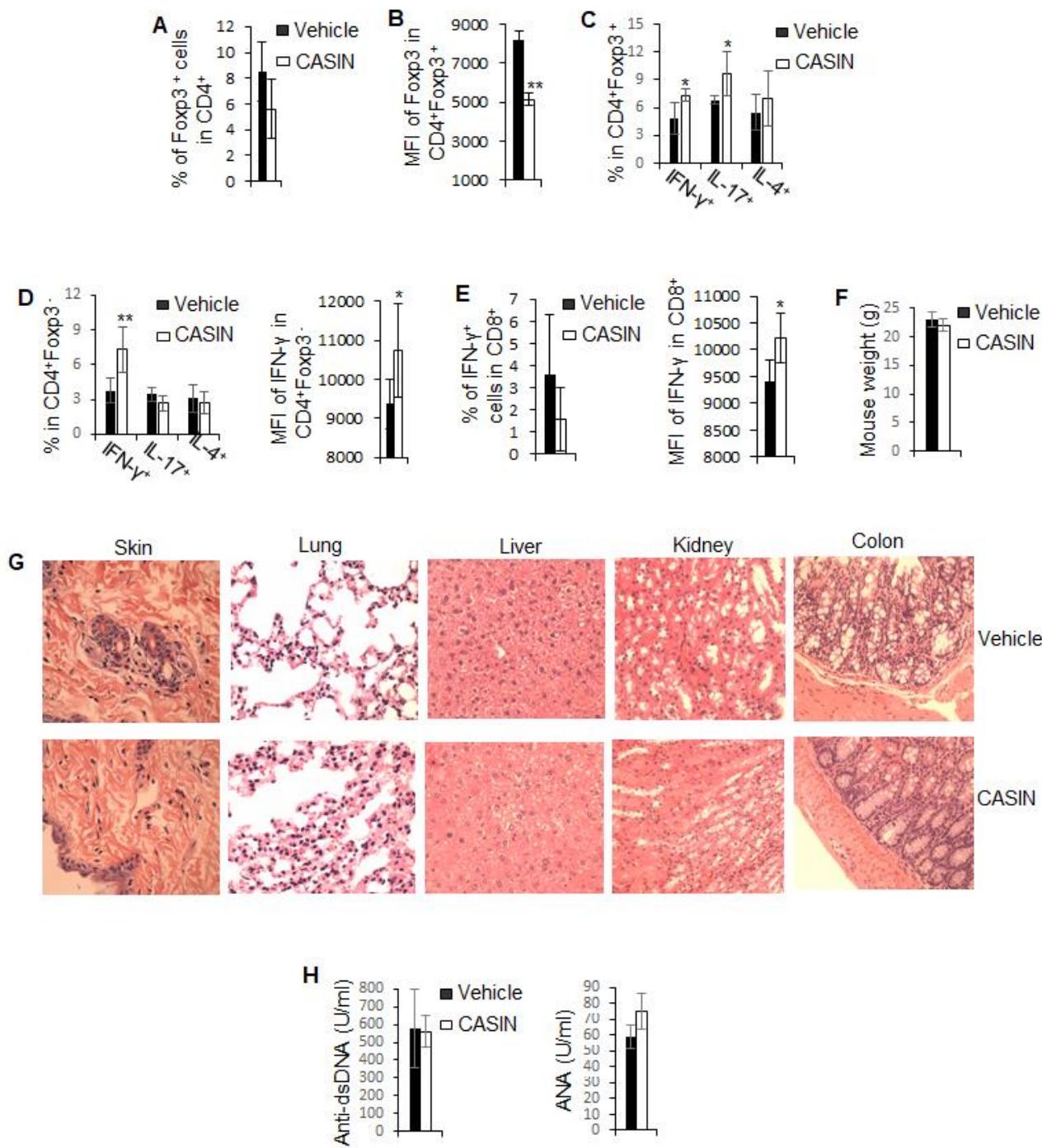


Supplemental Figure 6. CAI is upregulated in heterozygous *Cdc42* knockout Treg cells and inhibition of CAI in heterozygous *Cdc42* knockout mice reduces tumor-infiltrating Treg cell instability and effector T cells. (A) Splenic Treg cells from *Cdc42^{+/+} Foxp3^{YFP-Cre}* and *Cdc42^{Flox/+} Foxp3^{YFP-Cre}* mice were examined for the expression of CAI protein by flow cytometry. Representative flow cytograms are shown. The numbers indicate percentages of CAI⁺ Treg cells. (B-E) *Cdc42^{+/+} Foxp3^{YFP-Cre}* and *Cdc42^{Flox/+} Foxp3^{YFP-Cre}* mice were inoculated with MC38 cells and treated with or without AZA at 40 mg/kg once daily, starting at the same time as MC38 cell inoculation. The expression of Foxp3 (MFI) in tumor-infiltrating Treg cells (B) and the expression (percentages and/or MFI) of IFN- γ in tumor-infiltrating Treg cells (C) and CD4⁺ (D) and CD8⁺ (E) effector T cells were analyzed by flow cytometry. Of note, MFI of IFN- γ was analyzed in IFN- γ ⁺ cells. Error bars indicate SD of 4 mice. Data are representative of two independent experiments. **p < 0.01. AZA: acetazolamide. MFI: Mean fluorescence intensity



Supplemental Figure 7. Inhibition of GATA3 in heterozygous *Cdc42* knockout mice reduces tumor-infiltrating Treg cell instability and effector T cells and inhibition of WASP mimics heterozygous loss of *Cdc42* in inducing GATA3 and CAI expression and tumor-infiltrating Treg cell instability and effector T cells. (A-D)

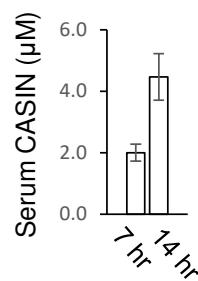
Cdc42^{+/+}Foxp3^{YFP-Cre} and *Cdc42^{Fllox/+}Foxp3^{YFP-Cre}* mice were inoculated with MC38 cells and treated with or without PTG (60 mg/kg) once daily, starting at the same time as MC38 cell inoculation. The expression of Foxp3 (MFI) in tumor-infiltrating Treg cells (A) and the expression (percentages and/or MFI) of IFN-γ in tumor-infiltrating Treg cells (B) and CD4⁺ (C) and CD8⁺ (D) effector T cells were analyzed by flow cytometry. (E, F) Splenic *Cdc42^{+/+}Foxp3^{YFP-Cre}* Treg cells were cultured for 3 days with WKS or vehicle. GATA3⁺ (E) or CAI⁺ (F) Treg cells were analyzed by flow cytometry. Representative flow cytograms of GATA3⁺ Treg cells are shown. The numbers indicate percentages of GATA3⁺ Treg cells (E). (G-J) *Cdc42^{+/+}Foxp3^{YFP-Cre}* mice were inoculated with MC38 cells and treated with or without WKS (60 mg/kg) once daily, starting at the same time as MC38 cell inoculation. The expression of Foxp3 (MFI) in tumor-infiltrating Treg cells (G) and the expression (percentages and/or MFI) of IFN-γ in tumor-infiltrating Treg cells (H) and CD4⁺ (I) and CD8⁺ (J) effector T cells were analyzed by flow cytometry. Of note, MFI of IFN-γ was analyzed in IFN-γ⁺ cells. Error bars indicate SD of 4 mice. Data are representative of two independent experiments. *p < 0.05; **p < 0.01. PTG: pyrothiogatain. WKS: wiskostatin. MFI: Mean fluorescence intensity.



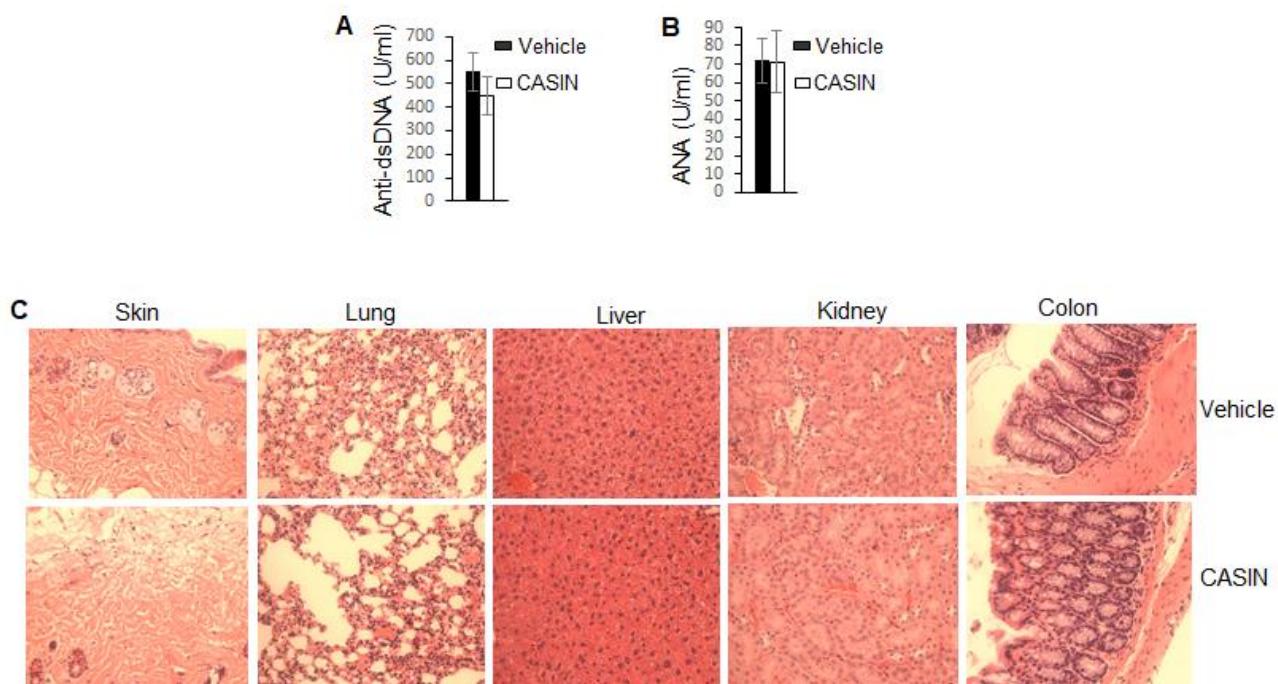
Supplemental Figure 8. CASIN induces Treg cell instability without causing systemic autoimmune responses.

(A-E) C57BL/6 mice were injected with or without CASIN at 30 mg/kg twice a day for 7 days and then 40 mg/kg once a day for another week. The spleen from the mice was subjected to flow cytometry analysis of the

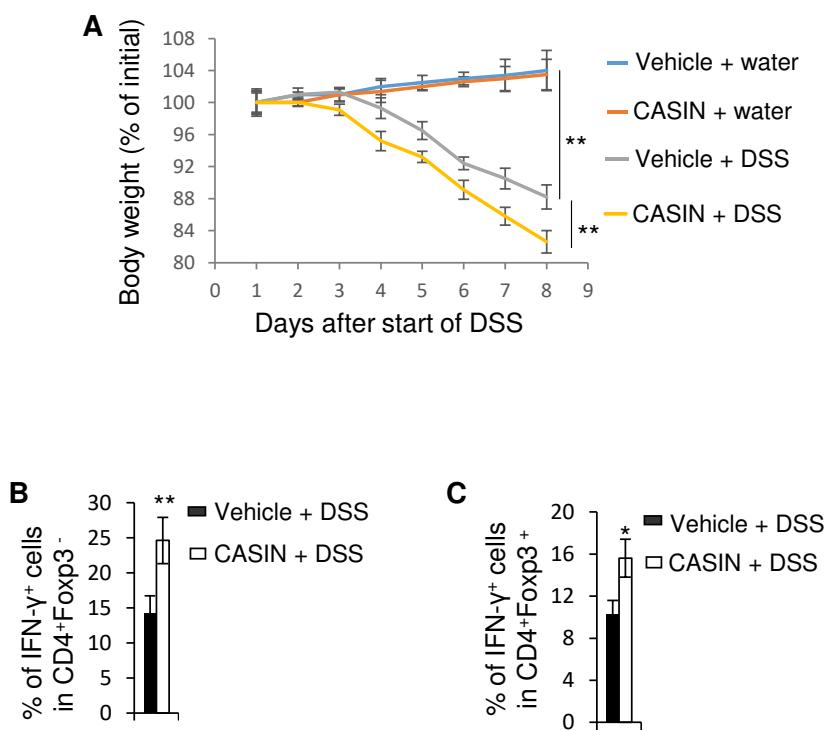
percentages of Treg cells (A), the expression of Foxp3 (MFI) in Treg cells (B), and the expression (percentages and/or MFI) of IFN- γ , IL-17 and/or IL-4 in Treg cells (C) and CD4 $^{+}$ (D) and CD8 $^{+}$ (E) effector T cells. Of note, MFI of IFN- γ was analyzed in IFN- γ^{+} cells. (F) Mouse body weight. (G) The indicated organs were subjected to H&E staining. (H) The concentrations of serum autoantibodies were analyzed by ELISA. (A-F and H) Error bars indicate SD of 5 mice. * $p < 0.05$; ** $p < 0.01$. (G) Data are representative of 3 mice. Anti-dsDNA: Anti-double stranded DNA. ANA: Antinuclear antibody. MFI: Mean fluorescence intensity.



Supplemental Figure 9. Serum levels of CASIN in tumor-bearing mice. C57/BL6 mice were inoculated with MC38 cells and treated with CASIN at 30 mg/kg twice, upon MC38 tumor onset. Serum was collected 7 hr after the first CASIN injection and 14 hr after the second CASIN injection that was performed 9 hr after the first injection. Error bars indicate SD of 4 mice.



Supplemental Figure 10. Tumor-bearing mice therapeutically treated with CASIN do not show systemic autoimmune responses. C57BL/6 mice were inoculated with MC38 cells and injected with or without CASIN at 30 mg/kg twice a day for 7 days and then 40 mg/kg once a day until the end of the experiment. CASIN injection was started upon tumor onset. The concentrations of serum autoantibodies were analyzed by ELISA (A, B). The indicated organs were subjected to H&E staining (C). (A, B) Error bars indicate SD of 6 mice. (C) The data are representative of 3 mice. Anti-dsDNA: Anti-double stranded DNA. ANA: Antinuclear antibody.



Supplemental Figure 11. CASIN increases disease severity of colitis. C57BL/6 mice were treated with 2.2% DSS in drinking water for 5 days followed by normal water. Mouse body weight was measured daily. The data are expressed as percentage of initial body weight (A). The mice were euthanized after 8 days and the percentages of IFN- γ ⁺ cells in colonic CD4⁺ effector T cells (B) and Treg cells (C) were analyzed by flow cytometry. Error bars indicate SD of 6 mice. *p < 0.05; **p < 0.01.

Supplemental Tables

Supplemental Table 1 Gene expression changes in heterozygous *Cdc42* knockout Treg cells.

| geneid | symbol | name | baseMean | baseMeanGroup1 | baseMeanGroup2 | foldChange | log2FoldChange | pval | padj |
|----------|------------|---|------------|----------------|----------------|-------------|----------------|----------|----------|
| 328780 | Prss34 | protease, serine 34 | 24.919575 | 0 | 49.83914964 | 417.5682 | 8.705868038 | 6.81E-10 | 1.88E-07 |
| 12346 | Car1 | carbonic anhydrase 1 | 22.110463 | 0 | 44.22092634 | 369.172227 | 8.528150211 | 7.32E-09 | 1.67E-06 |
| 17231 | Mcpt8 | mast cell protease 8 | 17.593241 | 0 | 35.18648244 | 295.073063 | 8.204928412 | 3.01E-08 | 5.85E-06 |
| 213742 | Xist | inactive X specific transcripts | 13231.898 | 185.8335518 | 26277.96159 | 143.809281 | 7.168012979 | 1.53E-32 | 2.24E-29 |
| 19074 | Prg2 | proteoglycan 2, bone marrow | 8.083601 | 0 | 16.16720203 | 135.462843 | 7.081753372 | 0.000242 | 0.0161 |
| 17349 | Mif1 | myeloid leukemia factor 1 | 7.2152987 | 0 | 14.43059732 | 120.797419 | 6.916445815 | 0.002087 | 0.075823 |
| 77806 | A930019D: | RIKEN cDNA A930019D19 gene | 7.1340392 | 0 | 14.2680784 | 120.351115 | 6.911105697 | 0.000323 | 0.01999 |
| 52614 | Adgre4 | adhesion G protein-coupled receptor E4 | 7.0289594 | 0 | 14.05791871 | 117.877404 | 6.881143382 | 0.000646 | 0.034841 |
| 12262 | C1qc | complement component 1, q subcomponent, C chain | 6.0113293 | 0 | 12.02265869 | 101.312329 | 6.662665945 | 0.00095 | 0.045844 |
| 98752 | Fcrla | Fc receptor-like 1 | 5.8190349 | 0 | 11.63806988 | 98.0632285 | 6.615640354 | 0.00105 | 0.048079 |
| 18670 | Abcb4 | ATP-binding cassette, sub-family B (MDR/TAP), member 4 | 5.7569218 | 0 | 11.51384368 | 97.1934784 | 6.602787608 | 0.001244 | 0.053436 |
| 14173 | Fgf2 | fibroblast growth factor 2 | 5.7258653 | 0 | 11.45173058 | 96.7576882 | 6.596304395 | 0.0013 | 0.054874 |
| 665037 | Gm7457 | predicted gene 7457 | 5.4714578 | 0 | 10.94291557 | 92.6349431 | 6.533484594 | 0.001844 | 0.070521 |
| 18214 | Ddr2 | discoidin domain receptor family, member 2 | 5.3102199 | 0 | 10.62043987 | 89.8291405 | 6.489111624 | 0.001746 | 0.067649 |
| 12777 | Ccr10 | chemokine (C-C motif) receptor 10 | 24.37637 | 0.824624836 | 47.92811582 | 67.6677065 | 6.080395587 | 1.54E-08 | 3.21E-06 |
| 27007 | Kir1 | killer cell lectin-like receptor subfamily K, member 1 | 10.096382 | 0.824624836 | 19.36813865 | 26.6560885 | 4.736393189 | 0.000917 | 0.044973 |
| 224912 | Crb3 | crumbs family member 3 | 8.6983983 | 0.436596558 | 16.96020001 | 25.6077316 | 4.678507556 | 0.000702 | 0.036754 |
| 67749 | Mgarp | mitochondria localized glutamic acid rich protein | 8.5252502 | 0.436596558 | 16.61390393 | 24.9725079 | 4.642268808 | 0.000993 | 0.046786 |
| 18783 | Pla2g4a | phospholipase A2, group IVA (cytosolic, calcium-dependent) | 7.6999146 | 0.436596558 | 14.96323721 | 22.5118455 | 4.492612427 | 0.001127 | 0.049454 |
| 442827 | Rab44 | RAB44, member RAS oncogene family | 12.56467 | 0.873193116 | 24.21974649 | 20.2225842 | 4.337895459 | 0.000219 | 0.014679 |
| 258532 | Olftr373 | olfactory receptor 373 | 10.2939184 | 0.873193116 | 19.71443472 | 16.6517871 | 4.057605113 | 0.000962 | 0.045926 |
| 74757 | 5830416I19 | RIKEN cDNA 5830416I19 gene | 53.611559 | 9.701742877 | 97.5213752 | 10.3299021 | 3.368754676 | 1.06E-09 | 2.88E-07 |
| 12771 | Ccr3 | chemokine (C-C motif) receptor 3 | 49.054328 | 7.858738042 | 90.24991852 | 9.95915164 | 3.316022854 | 1.47E-06 | 0.000175 |
| 218581 | Depdc1b | DEP domain containing 1B | 45.363281 | 8.925686319 | 81.80087508 | 9.8473941 | 3.161467564 | 1.99E-08 | 4.05E-06 |
| 78733 | Tropo | trophinin associated protein | 39.79314 | 7.858738042 | 71.72752493 | 8.02137105 | 3.00384885 | 7.52E-05 | 0.005781 |
| 16069 | Jchain | immunoglobulin joining chain | 1280.8812 | 283.196138 | 2278.566164 | 8.01887409 | 3.003399686 | 6.27E-93 | 1.83E-89 |
| 108961 | Ezf8 | E2F transcription factor 8 | 117.78608 | 24.88548584 | 210.6866651 | 9.79510987 | 2.995504395 | 4.28E-14 | 2.23E-11 |
| 66468 | Ska1 | spindle and kinetochore associated complex subunit 1 | 22.352633 | 5.820942135 | 38.88432387 | 7.44596205 | 2.896458263 | 0.000799 | 0.040251 |
| 12772 | Ccr2 | chemokine (C-C motif) receptor 2 | 428.37782 | 110.7467131 | 746.008935 | 6.58863458 | 2.719979514 | 8.18E-49 | 1.71E-45 |
| 70218 | Kif18b | kinesin family member 18B | 88.651535 | 23.47855961 | 153.8245112 | 32.3359381 | 2.6607447 | 1.04E-10 | 3.16E-08 |
| 433940 | Fam222a | family with sequence similarity 222, member A | 13.713704 | 3.444204184 | 23.98320427 | 6.210797935 | 2.634774315 | 0.002755 | 0.090697 |
| 22177 | Tyrobp | TYRO protein tyrosine kinase binding protein | 20.932634 | 6.306106972 | 35.55916105 | 5.86456486 | 2.55204067 | 0.001127 | 0.049454 |
| 18407 | Orm3 | orosomucoid 3 | 20.568073 | 5.627186974 | 35.50895814 | 5.626268384 | 2.492182336 | 0.001719 | 0.067147 |
| 381293 | Kif14 | kinesin family member 14 | 86.509778 | 25.3220824 | 147.6974729 | 5.53828363 | 2.469438941 | 5.20E-08 | 9.87E-06 |
| 100532 | Rell1 | RELT-like 1 | 112.74598 | 35.84793216 | 189.6440348 | 5.43415975 | 2.442056976 | 7.43E-11 | 2.36E-08 |
| 12235 | Bub1 | BUB1, mitotic checkpoint serine/threonine kinase | 100.42633 | 29.97945766 | 170.8732068 | 5.39017567 | 2.430332292 | 5.20E-05 | 0.00427 |
| 18005 | Nek2 | NIMA (never in mitosis gene a)-related expressed kinase 2 | 123.703 | 37.98286463 | 209.4231448 | 5.35329546 | 2.420427282 | 9.48E-12 | 3.65E-09 |
| 208084 | Pif1 | PIF 1'-5' DNA helicase | 73.255524 | 22.9448265 | 123.566222 | 5.31857954 | 2.41104989 | 2.46E-07 | 3.60E-05 |
| 19362 | Rad51ap1 | RAD51 associated protein 1 | 46.559422 | 13.87395329 | 79.24488986 | 5.2365323 | 2.388611757 | 0.000145 | 0.01015 |
| 217216 | BC030867 | cDNA sequence BC030867 | 25.21313 | 7.373572035 | 43.05268759 | 5.22619833 | 2.385761875 | 0.001101 | 0.049076 |
| 14961 | H2-Ab1 | histocompatibility 2, class II antigen A, beta 1 | 35.581644 | 11.49669739 | 59.66659152 | 5.0474773 | 2.335562518 | 6.34E-05 | 0.005034 |
| 66442 | Spc25 | SPC25, NDC80 kinetochore complex component, homolog (S. cerev | 59.598595 | 18.72508371 | 101.1928341 | 5.03232733 | 2.331238665 | 0.000653 | 0.035071 |
| 54141 | Spag5 | sperm associated antigen 5 | 173.62173 | 62.770178 | 284.4732884 | 4.66515384 | 2.221924655 | 1.25E-12 | 5.23E-10 |
| 68799 | Rgmb | repulsive guidance molecule family member B | 47.670413 | 15.95979953 | 79.38102625 | 4.67302331 | 2.213198978 | 0.00011 | 0.008051 |
| 12428 | Ccn2a2 | cyclin A2 | 301.15024 | 110.6971089 | 491.6033727 | 4.52106676 | 2.176663221 | 3.94E-23 | 3.60E-20 |
| 73804 | Kif2c | kinesin family member 2C | 71.891058 | 25.56440584 | 118.2177094 | 4.51814757 | 2.175731392 | 1.09E-06 | 0.000136 |
| 14793 | Cdca3 | cell division cycle associated 3 | 127.6429 | 48.21782266 | 207.0679712 | 4.33601731 | 2.116370516 | 5.80E-09 | 1.39E-06 |
| 1E+08 | Nhs12 | NHS-like 2 | 96.452964 | 38.17610183 | 154.7298252 | 4.2218464 | 2.077874091 | 3.06E-06 | 0.000344 |
| 12983 | Csf2rb | colony stimulating factor 2 receptor, beta, low-affinity (granulocyte | 34.043459 | 12.46702706 | 55.61989185 | 4.2196811 | 2.077133972 | 0.001981 | 0.073637 |
| 12316 | Aspn | asp (abnormal spindle)-like, microcephaly associated (Drosophila) | 255.24161 | 101.2371715 | 409.2460419 | 4.1597536 | 2.056498073 | 3.26E-11 | 1.22E-08 |
| 109121 | Fam64a | family with sequence similarity 64, member A | 42.780912 | 16.63871952 | 68.9213053 | 4.01491936 | 2.005371011 | 0.000268 | 0.017428 |
| 67849 | Cdc5 | cell division cycle associated 5 | 66.120591 | 25.6615424 | 106.5796395 | 4.006649221 | 2.002339672 | 2.00E-05 | 0.001817 |
| 75317 | Parpbp | PARP1 binding protein | 43.171541 | 17.12388436 | 69.21919847 | 3.87691412 | 1.954908778 | 0.000403 | 0.023662 |
| 268697 | Ccnb1 | cyclin B1 | 187.65313 | 76.06286581 | 299.2433958 | 3.84476523 | 1.942895507 | 3.04E-09 | 7.53E-07 |
| 52276 | Cdc8 | cell division cycle associated 8 | 152.22446 | 61.41337392 | 243.0355415 | 3.827373789 | 1.936354843 | 5.64E-07 | 7.55E-05 |
| 11828 | Aqp3 | aquaporin 3 | 48.923249 | 19.74346371 | 78.10303364 | 3.7676065 | 1.913648292 | 0.000306 | 0.019434 |
| 108000 | Cenpf | centromere protein F | 361.48803 | 152.9973709 | 569.9786792 | 3.74102581 | 1.903433918 | 1.63E-25 | 1.83E-22 |
| 235431 | Coro2b | coronin, actin binding protein, 2B | 76.589324 | 32.30710937 | 120.871583 | 3.7006314 | 1.887771445 | 4.08E-06 | 0.000441 |
| 20198 | S100a4 | S100 calcium binding protein A4 | 485.94183 | 213.3406888 | 758.5429709 | 3.63903405 | 1.863565551 | 2.39E-17 | 1.75E-14 |
| 16551 | Kif11 | kinesin family member 11 | 530.6831 | 231.484507 | 829.8817013 | 3.61417874 | 1.853667856 | 3.24E-24 | 3.38E-21 |
| 76131 | Depdc1a | DEP domain containing 1a | 69.195901 | 30.0755583 | 108.3162442 | 3.61364891 | 1.853456344 | 2.39E-05 | 0.002138 |
| 16854 | Lgals3 | lectin, galactose binding, soluble 3 | 55.212159 | 24.73926305 | 85.68505582 | 3.61265441 | 1.853059253 | 0.000629 | 0.034259 |
| 16571 | Kif4 | kinesin family member 4 | 133.76181 | 57.19259522 | 210.331021 | 3.59944019 | 1.847772546 | 2.55E-07 | 3.69E-05 |
| 50918 | Myadrn | myeloid-associated differentiation marker | 128.49456 | 56.60977587 | 200.3793529 | 3.59053388 | 1.844198376 | 1.12E-07 | 1.86E-05 |
| 20877 | Aurkb | aurora kinase B | 146.252124 | 63.35299735 | 229.1494897 | 3.58242045 | 1.840862199 | 1.53E-09 | 3.98E-07 |
| 11799 | Birc5 | baculoviral IAP repeat-containing 5 | 169.09576 | 73.87936506 | 264.3121518 | 3.56288679 | 1.833046645 | 6.34E-11 | 2.10E-08 |
| 107995 | Cdc20 | cell division cycle 20 | 150.90581 | 66.02114498 | 235.7904673 | 3.51749466 | 1.814548234 | 2.64E-08 | 5.21E-06 |
| 67169 | Nradd | neurotrophin receptor associated death domain | 67.988751 | 29.3000197 | 106.6774832 | 3.46721199 | 1.793776047 | 0.000402 | 0.023662 |
| 17345 | Mki67 | antigen identified by monoclonal antibody Ki 67 | 2214.475 | 1007.141362 | 3421.80873 | 3.41698577 | 1.772724241 | 6.13E-38 | 9.95E-35 |
| 18576 | Pde3b | phosphodiesterase 3B, cGMP-inhibited | 179.46852 | 80.76777343 | 278.1692588 | 3.41677852 | 1.772636735 | 6.95E-11 | 2.26E-08 |
| 72119 | Tpx2 | TPX2, microtubule-associated | 249.58036 | 114.8202331 | 384.3404891 | 3.41282161 | 1.770965006 | 1.43E-13 | 7.22E-11 |
| 229841 | Cenpe | centromere protein E | 301.63879 | 139.1714679 | 464.41061042 | 3.41097773 | 1.770185336 | 2.50E-15 | 1.52E-12 |
| 17395 | Mmp9 | matrix metalloproteinase 9 | 50.218127 | 21.97501478 | 78.46123991 | 3.405316 | 1.767788681 | 0.00288 | 0.093493 |
| 16199 | Il9r | interleukin 9 receptor | 268.83927 | 123.4064594 | 414.2720789 | 3.39742451 | 1.764441495 | 2.90E-12 | 1.18E-09 |
| 380711 | Rap1gap2 | RAP1 GTPase activating protein 2 | 188.3095 | 85.52176729 | 291.0972315 | 3.36592747 | 1.751004091 | 4.97E-11 | 1.73E-08 |
| 234258 | Neil3 | neil 3 (E. coli) | 94.38482 | 43.90042536 | 144.8692149 | 3.35296792 | 1.745438678 | 1.82E-05 | 0.001669 |
| 1.01E+08 | Zfp534 | zinc finger protein 534 | 60.373524 | 27.94114379 | 92.80590375 | 3.34464177 | 1.7418517 | 0.000129 | 0.009198 |
| 52679 | Ezf7 | E2F transcription factor 7 | 64.203837 | 29.97842175 | 98.42925135 | 3.325393676 | 1.73350045 | 0.000626 | 0.034259 |
| 76464 | Knl1 | kinetochore scaffold 1 | 192.75132 | 89.59632319 | 295.9063229 | 3.2890065 | 1.717649295 | 1.21E-08 | 2.57E-06 |
| 242341 | Atp6v0d2 | ATPase, H ⁺ transporting, lysosomal V0 subunit D2 | 39.658073 | 18.433674 | | | | | |

| | | | | | | | | |
|---|--|------------|-------------|-------------|-------------|--------------|----------|----------|
| 12704 Cit | citron | 117.58414 | 56.46458898 | 178.7036814 | 3.15154113 | 1.656057491 | 1.81E-06 | 0.00021 |
| 234396 Ankle1 | ankyrin repeat and LEM domain containing 1 | 61.607549 | 29.05717831 | 94.15791965 | 3.1499447 | 1.655326503 | 0.000354 | 0.021198 |
| 56193 Plek | pleckstrin | 101.86421 | 48.9458289 | 154.7825902 | 3.12085838 | 1.641942893 | 1.46E-05 | 0.001365 |
| 20419 Shcbp1 | Shc SH2-domain binding protein 1 | 73.37812 | 35.36328528 | 111.3929546 | 3.09225976 | 1.628661513 | 0.000107 | 0.007907 |
| 74107 Cep55 | centrosomal protein 55 | 127.01548 | 63.20677456 | 190.8241838 | 3.08896245 | 1.627122333 | 3.70E-06 | 0.00041 |
| 71988 Esc02 | establishment of sister chromatid cohesion N-acetyltransferase 2 | 105.87362 | 52.4380834 | 159.3091602 | 3.07303106 | 1.61966235 | 6.33E-06 | 0.000651 |
| 12442 Ccnb2 | cyclin B2 | 179.05028 | 89.64385556 | 268.4566951 | 3.06979927 | 1.618144322 | 3.11E-07 | 4.41E-05 |
| 18817 Plk1 | polo-like kinase 1 | 181.56827 | 91.87540663 | 271.2611327 | 3.01658164 | 1.592914625 | 1.16E-07 | 1.89E-05 |
| 15368 Hmox1 | heme oxygenase 1 | 51.447411 | 25.17637756 | 77.71844484 | 3.01232022 | 1.59087514 | 0.001121 | 0.049454 |
| 68026 2810417H1 RIKEN cDNA 2810417H13 gene | | 332.61148 | 167.6473807 | 497.7575786 | 2.96188424 | 1.566515259 | 5.32E-13 | 2.43E-10 |
| 240055 Neur1b | neuralized E3 ubiquitin protein ligase 1B | 49.725696 | 24.44889284 | 29.4479199 | 1.55816573 | 0.00276 | 0.090697 | |
| 110033 Kif22 | kinesin family member 22 | 273.88531 | 139.1244535 | 408.6461691 | 2.90550842 | 1.538790635 | 5.54E-13 | 2.45E-10 |
| 105988 Esp1 | extra spindle pole bodies 1, separase | 174.63748 | 88.33561976 | 260.9393482 | 2.90023367 | 1.536169142 | 3.84E-07 | 5.35E-05 |
| 68612 Ube2c | ubiquitin-conjugating enzyme E2C | 174.07919 | 89.25686319 | 258.901526 | 2.88110202 | 1.526620749 | 1.94E-08 | 4.00E-06 |
| 14960 H2-Aa | histocompatibility 2, class II antigen A, alpha | 60.670404 | 31.3367797 | 90.00402827 | 2.88084224 | 1.526490656 | 0.001667 | 0.006157 |
| 12021 Bard1 | BRCA1 associated RING domain 1 | 161.65982 | 82.90218794 | 240.4174431 | 2.87652989 | 1.524329463 | 2.20E-07 | 3.25E-05 |
| 71819 Kif23 | kinesin family member 23 | 224.81873 | 117.8758911 | 331.7615771 | 2.87457658 | 1.523349467 | 2.14E-07 | 3.22E-05 |
| 217653 Mis18bp1 | MIS18 binding protein 1 | 111.339 | 57.43491866 | 165.2430733 | 2.84706329 | 1.509474567 | 7.13E-05 | 0.005541 |
| 12534 Cdk1 | cyclin-dependent kinase 1 | 137.25746 | 71.89013744 | 202.6427726 | 2.84693273 | 1.509408404 | 3.82E-06 | 0.000416 |
| 20135 Rrm2 | ribonucleotide reductase M2 | 508.07388 | 265.6837074 | 750.4640439 | 2.83975367 | 1.50576579 | 2.13E-23 | 2.07E-20 |
| 70466 Ckap2l | cytoskeleton associated protein 2-like | 114.506 | 59.76308833 | 169.2489181 | 2.8375985 | 1.504670471 | 1.43E-05 | 0.001347 |
| 66977 NuF2 | NUF2, NDC80 kinetochore complex component | 116.46741 | 60.733418 | 172.2014023 | 2.82120104 | 1.496309475 | 9.91E-06 | 0.000972 |
| 108907 Nusap1 | nucleolar and spindle associated protein 1 | 223.24958 | 119.3313856 | 327.1677697 | 2.7985331 | 1.484670809 | 1.12E-08 | 2.40E-06 |
| 404710 Iggap3 | IQ motif containing GTPase activating protein 3 | 55.416125 | 29.59039347 | 81.24185716 | 2.7817475 | 1.475990539 | 0.001965 | 0.073243 |
| 218977 Dlgap5 | discs, large (Drosophila) homolog-associated protein 5 | 179.19139 | 94.15656189 | 264.2262183 | 2.76618973 | 1.467900113 | 1.64E-07 | 2.54E-05 |
| 54392 Ncapg | non-SMC condensin I complex, subunit G | 196.54343 | 104.4400882 | 288.6467764 | 2.75467679 | 1.461883056 | 1.52E-07 | 2.39E-05 |
| 20304 Ccl5 | chemokine (C-C motif) ligand 5 | 107.92362 | 57.04689038 | 158.8003452 | 2.74849235 | 1.458640461 | 3.08E-05 | 0.002692 |
| 76498 Paqr4 | pregenin and adipQ receptor family member IV | 62.552356 | 33.18030249 | 91.92441013 | 2.74130308 | 1.454861842 | 0.001077 | 0.04857 |
| 16404 Itga7 | integrin alpha 7 | 63.22684 | 33.42314389 | 93.03053578 | 2.69234002 | 1.42886062 | 0.002652 | 0.089047 |
| 21973 Top2a | topoisomerase (DNA) II alpha | 1754.3695 | 954.9952063 | 2553.743745 | 2.69065733 | 1.427958665 | 2.27E-38 | 4.14E-35 |
| 14939 Gzmb | granzyme B | 78.103497 | 43.02732325 | 113.1797622 | 2.67982553 | 1.422139075 | 0.000744 | 0.038116 |
| 68549 Sgol2a | shugoshin-like 2a (S. pombe) | 143.43576 | 79.31176096 | 207.5597517 | 2.66667993 | 1.415044677 | 1.28E-05 | 0.001211 |
| 380850 Gm5141 | predicted gene 5141 | 83.980571 | 44.96840955 | 122.9927318 | 2.65706808 | 1.409835192 | 0.000789 | 0.04001 |
| 67052 Ndc80 | NDC80 kinetochore complex component | 177.28265 | 96.19383984 | 258.3714528 | 2.65676211 | 1.409669054 | 1.08E-06 | 0.000135 |
| 208628 Kntc1 | kinetochore associated 1 | 166.06414 | 91.87592459 | 240.2523621 | 2.63538903 | 1.398015945 | 7.96E-07 | 0.000102 |
| 17916 Myo1f | myosin IF | 754.54685 | 419.0691066 | 1090.024589 | 2.614540212 | 1.386557211 | 1.89E-26 | 2.30E-23 |
| 14235 Foxm1 | forkhead box M1 | 217.03189 | 121.7086415 | 312.3551458 | 2.59911875 | 1.378022552 | 5.78E-08 | 1.07E-05 |
| 12449 Ccnf | cyclin F | 121.61308 | 66.40969121 | 176.816468 | 2.59379141 | 1.375062466 | 0.000239 | 0.015964 |
| 80986 Ckap2 | cytoskeleton associated protein 2 | 112.16979 | 63.74050767 | 160.59063 | 2.56274752 | 1.357691353 | 0.000124 | 0.008965 |
| 17082 Il1rl1 | interleukin 1 receptor-like 1 | 800.34264 | 446.7720706 | 1153.91321 | 2.56046647 | 1.356406667 | 6.02E-11 | 2.05E-08 |
| 319876 Cobl1 | Cobl-like 1 | 180.56017 | 100.8021289 | 260.3182172 | 2.55960208 | 1.355919545 | 5.82E-07 | 7.73E-05 |
| 14676 Gna15 | guanine nucleotide binding protein, alpha 15 | 176.69115 | 99.49233919 | 253.8899614 | 2.53258177 | 1.340608853 | 6.68E-07 | 8.66E-05 |
| 233064 Wdr62 | WD repeat domain 62 | 116.09951 | 64.61525466 | 167.5837746 | 2.51996246 | 1.333402243 | 0.003079 | 0.098216 |
| 58206 Zbtb32 | zinc finger and BTB domain containing 32 | 160.69161 | 90.37289771 | 231.0103206 | 2.51862511 | 1.332636398 | 5.83E-06 | 0.000604 |
| 23834 Cd6c | cell division cycle 6 | 108.71506 | 63.06106972 | 154.3690567 | 2.51243064 | 1.329083771 | 0.001144 | 0.050037 |
| 71085 Arhgap19 | Rho GTPase activating protein 19 | 174.55044 | 98.47395919 | 250.6269117 | 2.50753566 | 1.326270216 | 3.12E-06 | 0.000348 |
| 16765 Stmn1 | stathmin 1 | 636.34199 | 364.9817735 | 907.7022135 | 2.49571326 | 1.319452186 | 8.91E-22 | 7.66E-19 |
| 170942 Erd1 | erythroid differentiation regulator 1 | 3651.1507 | 2104.416406 | 5197.884973 | 2.47560523 | 1.307781276 | 3.40E-13 | 1.60E-10 |
| 108912 Cda2 | cell division cycle associated 2 | 108.58931 | 63.30391112 | 153.8747141 | 2.47268279 | 1.306077173 | 0.000309 | 0.019495 |
| 12774 Ccr5 | chemokine (C-C motif) receptor 5 | 80.28015 | 46.37481783 | 114.185482 | 2.43481836 | 1.283814147 | 0.00153 | 0.061917 |
| 72054 Cypdfl8 | cytochrome P450, family 4, subfamily f, polypeptide 18 | 276.84814 | 161.5841151 | 392.1121738 | 2.42756835 | 1.279511913 | 0.001422 | 0.058538 |
| 14537 Gcnt1 | glucosaminyl (N-acetyl) transferase 1, core 2 | 111.00103 | 64.56565047 | 157.4364191 | 2.42638009 | 1.278805565 | 0.000163 | 0.011274 |
| 270906 Prr11 | proline rich 11 | 132.0369 | 76.93554097 | 187.1382525 | 2.41709023 | 1.273271329 | 4.54E-05 | 0.003836 |
| 51944 Knstrn | kinetochore-localized astrin/SPAG5 binding | 162.41572 | 94.73834533 | 230.0930964 | 2.41696855 | 1.273198698 | 5.37E-06 | 0.000565 |
| 269582 Clspn | claspin | 194.25285 | 114.626478 | 273.8792311 | 2.41285974 | 1.270765579 | 1.18E-06 | 0.000145 |
| 269389 Tox2 | TOX high mobility group box family member 2 | 184.79497 | 108.6122986 | 260.9776409 | 2.37490297 | 1.24786573 | 1.68E-05 | 0.001552 |
| 72415 Sgol1 | shugoshin-like 1 (S. pombe) | 76.877061 | 45.55019299 | 108.2039282 | 2.34559647 | 1.22995484 | 0.002083 | 0.075823 |
| 21897 Tlr1 | toll-like receptor 1 | 1425.8755 | 853.0331362 | 198.71791 | 2.34496404 | 1.229565798 | 2.93E-13 | 1.43E-10 |
| 77300 Raph1 | Ras association (RalGDS/AF-6) and pleckstrin homology domains 1 | 304.19696 | 181.717161 | 426.6767642 | 2.30777588 | 1.206503124 | 2.43E-05 | 0.002163 |
| 12236 Bub1b | BUB1B, mitotic checkpoint serine/threonine kinase | 272.01309 | 165.46388 | 378.5623091 | 2.30435277 | 1.204361593 | 1.70E-07 | 2.62E-05 |
| 12531 Cdc25b | cell division cycle 25B | 1399.9741 | 850.1205934 | 1949.827631 | 2.29939369 | 1.2012535 | 1.17E-30 | 1.55E-27 |
| 233406 Prc1 | protein regulator of cytokinesis 1 | 278.49907 | 172.6431801 | 384.3549615 | 2.24465797 | 1.166495628 | 7.40E-08 | 1.27E-05 |
| 13605 Ec2 | ect2 oncogene | 143.37266 | 89.25634524 | 197.4889818 | 2.22925501 | 1.156561656 | 0.000378 | 0.022454 |
| 215387 Ncapb | non-SMC condensin I complex, subunit H | 205.54839 | 130.2447457 | 280.8520324 | 2.20614513 | 1.1415227702 | 0.002138 | 0.076735 |
| 50928 Klrg1 | killer cell lectin-like receptor subfamily G, member 1 | 419.71099 | 261.3192957 | 578.1026848 | 2.19151701 | 1.131929876 | 4.69E-11 | 1.67E-08 |
| 263406 Plekhg3 | pleckstrin homology domain containing, family G (with RhoGef domain) | 98.535898 | 62.47928628 | 134.5925089 | 2.18919867 | 1.130402887 | 0.002921 | 0.094612 |
| 67664 Rnf125 | ring finger protein 125 | 252.33059 | 157.6547461 | 347.0064307 | 2.18917922 | 1.130390067 | 1.16E-07 | 1.89E-05 |
| 66929 Asf1b | anti-silencing function 1B histone chaperone | 184.65853 | 115.548753 | 253.7682974 | 2.18620066 | 1.128425826 | 3.26E-05 | 0.002801 |
| 72747 Ttc39c | tetratricopeptide repeat domain 39C | 242.02145 | 150.2341585 | 333.8087473 | 2.18363951 | 1.126734708 | 0.000133 | 0.009464 |
| 12773 Ccr4 | chemokine (C-C motif) receptor 4 | 680.4499 | 427.9482965 | 92.93515002 | 2.16527749 | 1.114551926 | 1.49E-14 | 8.38E-12 |
| 76044 Ncapg2 | non-SMC condensin II complex, subunit G2 | 354.64906 | 223.7239414 | 485.5741781 | 2.16523252 | 1.114521962 | 1.94E-09 | 4.88E-07 |
| 71223 Gpr15 | G protein-coupled receptor 15 | 181.30768 | 114.482327 | 248.133096 | 2.13078744 | 1.091386681 | 0.000203 | 0.013819 |
| 19883 Rora | RAR-related orphan receptor alpha | 1071.8742 | 682.9144708 | 1460.833909 | 2.12735492 | 1.08906075 | 2.32E-10 | 6.78E-08 |
| 16852 Lgals1 | lectin, galactose binding, soluble 1 | 1446.4773 | 942.0404246 | 1950.91416 | 2.0906447 | 1.063947901 | 2.97E-15 | 1.74E-12 |
| 11501 Adam8 | a disintegrin and metalloproteinase domain 8 | 171.33524 | 110.8433317 | 231.827139 | 2.08787646 | 1.062036348 | 0.000135 | 0.009558 |
| 60530 Fignl1 | fidgetin-like 1 | 158.05852 | 101.8210268 | 214.2960109 | 2.08307261 | 1.058713127 | 0.000434 | 0.024851 |
| 224171 C330027CC RIKEN cDNA C330027C09 gene | | 232.36424 | 151.154884 | 313.5735874 | 2.05497546 | 1.039121163 | 7.74E-05 | 0.005899 |
| 68743 Anln | anillin, actin binding protein | 117.262318 | 77.71107957 | 156.8152881 | 2.04612774 | 1.032896213 | 0.0026 | 0.088535 |
| 433804 Zfp985 | zinc finger protein 985 | 131.54106 | 86.05550041 | 177.0266277 | 2.03306473 | 1.023656151 | 0.00128 | 0.054362 |
| 22354 Vipr1 | vasoactive intestinal peptide receptor 1 | 264.20275 | 173.875905 | 354.574598 | 2.00901962 | 1.006491653 | 5.08E-05 | 0.004189 |
| 224842 Arhgap11a | Rho GTPase activating protein 11A | 367.99991 | 246.66825 | 489.3315705 | 1.99077455 | 0.993329846 | 1.10E-08 | 2.39E-06 |
| 433182 Enolb | enolase 1B, retrotransposed | 347.50932 | 235.219 | | | | | |

| | | | | | | | | |
|------------------|--|------------|-------------|--------------|-------------|-------------|----------|----------|
| 18140 Uhrf1 | ubiquitin-like, containing PHD and RING finger domains, 1 | 501.37993 | 339.4664539 | 663.2933979 | 1.95336581 | 0.96596215 | 1.17E-10 | 3.50E-08 |
| 68014 Zwilch | zwilch kinetochore protein | 123.76034 | 83.96913622 | 163.5515472 | 1.95163889 | 0.964686138 | 0.002314 | 0.080677 |
| 234362 Zfp868 | zinc finger protein 868 | 713.45438 | 484.6056047 | 942.3031559 | 1.94988215 | 0.963386929 | 0.002061 | 0.075445 |
| 20195 S100a11 | S100 calcium binding protein A11 | 1221.5262 | 830.8147621 | 1612.237671 | 1.94146371 | 0.95714474 | 4.04E-19 | 3.28E-16 |
| 19348 Kif20a | kinesin family member 20A | 215.872 | 147.4187522 | 284.3252418 | 1.93864787 | 0.955050779 | 3.85E-05 | 0.003291 |
| 215114 Hip1 | huntingtin interacting protein 1 | 202.1456 | 137.668959 | 266.6222467 | 1.92728686 | 0.946571318 | 0.00021 | 0.014159 |
| 26934 Racgap1 | Rac GTPase-activating protein 1 | 504.04471 | 346.7904229 | 661.2989928 | 1.91803396 | 0.939628262 | 6.22E-09 | 1.44E-06 |
| 97165 Hmgb2 | high mobility group box 2 | 1890.1274 | 1302.461441 | 2477.793412 | 1.91512082 | 0.937435409 | 3.36E-12 | 1.33E-09 |
| 71435 Arhgap21 | Rho GTPase activating protein 21 | 188.65432 | 129.5193292 | 247.7893056 | 1.90720482 | 0.931459788 | 0.00104 | 0.048072 |
| 12580 Cdkn2c | cyclin-dependent kinase inhibitor 2C (p18, inhibits CDK4) | 212.95909 | 148.2909094 | 277.6272754 | 1.90413549 | 0.929136138 | 0.001113 | 0.049279 |
| 68298 Ncapd2 | non-SMC condensin I complex, subunit D2 | 1139.6428 | 791.8129955 | 1487.472604 | 1.88171024 | 0.912044488 | 3.05E-16 | 2.12E-13 |
| 21335 Tacc3 | transforming, acidic coiled-coil containing protein 3 | 276.32284 | 192.3385934 | 360.307082 | 1.86906842 | 0.90213938 | 6.45E-05 | 0.000657 |
| 98878 Ehd4 | EH-domain containing 4 | 198.97089 | 140.724099 | 257.2176864 | 1.84639307 | 0.884709714 | 0.001178 | 0.051351 |
| 212377 Mms2l | MMS2-like, DNA repair protein | 240.42127 | 168.2798043 | 312.5627433 | 1.82750214 | 0.869873098 | 0.002313 | 0.080677 |
| 27221 Chaf1a | chromatin assembly factor 1, subunit A (p150) | 165.86215 | 118.0706821 | 213.6536216 | 1.82330824 | 0.866558476 | 0.001898 | 0.072008 |
| 12767 Cxcr4 | chemokine (C-X-C motif) receptor 4 | 472.49117 | 338.7400015 | 606.2423426 | 1.77598539 | 0.82861971 | 3.50E-07 | 4.92E-05 |
| 14782 Gsr | glutathione reductase | 426.08957 | 306.8209204 | 545.35821 | 1.76714934 | 0.821423968 | 0.000127 | 0.009135 |
| 78286 Nav2 | neuron navigator 2 | 783.25794 | 568.3365611 | 998.1793262 | 1.74301595 | 0.801585775 | 1.65E-05 | 0.001531 |
| 16412 Itgb1 | integrin beta 1 (fibronectin receptor beta) | 8013.5466 | 5868.186361 | 10158.90686 | 1.73471057 | 0.794694974 | 3.41E-14 | 1.84E-11 |
| 12306 Anxa2 | annexin A2 | 696.38636 | 514.9663572 | 877.8063544 | 1.72537382 | 0.786908972 | 0.000681 | 0.035923 |
| 16182 Il18r1 | interleukin 18 receptor 1 | 1913.5582 | 1406.568803 | 2420.547569 | 1.72264056 | 0.784621708 | 1.67E-09 | 4.29E-07 |
| 16319 Incenp | inner centromere protein | 725.73239 | 535.4419708 | 916.022807 | 1.71770638 | 0.780483448 | 7.59E-08 | 1.29E-05 |
| 12615 Cenpa | centromere protein A | 475.46775 | 352.1747685 | 598.7607262 | 1.71405712 | 0.777415191 | 5.23E-07 | 7.07E-05 |
| 16174 Il18rap | interleukin 18 receptor accessory protein | 432.32791 | 320.2556874 | 544.4001309 | 1.71116596 | 0.774979685 | 5.34E-05 | 0.004307 |
| 83921 Tmem2 | transmembrane protein 2 | 289.01043 | 214.8948737 | 363.1259919 | 1.6942604 | 0.76026367 | 0.000188 | 0.012917 |
| 15270 H2afx | H2A histone family, member X | 424.02715 | 315.1637874 | 532.8905109 | 1.68608411 | 0.753676509 | 2.22E-05 | 0.000253 |
| 22289 Kdm6a | lysine (K)-specific demethylase 6A | 1883.1545 | 1406.032998 | 2360.275981 | 1.68348968 | 0.75145488 | 9.81E-11 | 3.05E-08 |
| 19735 Rgs2 | regulator of G-protein signaling 2 | 207.01129 | 153.9196502 | 260.1029332 | 1.68257527 | 0.750671045 | 0.002344 | 0.080934 |
| 320376 Bcor1 | BCL6 co-repressor-like 1 | 257.43196 | 191.757328 | 323.1065977 | 1.66959752 | 0.739500364 | 0.00145 | 0.059314 |
| 106795 Tcf19 | transcription factor 19 | 222.6312 | 168.1320276 | 277.1303706 | 1.65664711 | 0.72826632 | 0.001952 | 0.073129 |
| 108105 B3gnt5 | UDP-GlcNAc:betaGal beta-1,3-N-acetylglucosaminyltransferase 5 | 392.32717 | 295.2751368 | 489.3792113 | 1.65106475 | 0.723396701 | 1.12E-05 | 0.001086 |
| 17760 Map6 | microtubule-associated protein 6 | 288.71963 | 217.0794104 | 360.359847 | 1.64132498 | 0.714860919 | 0.00212 | 0.076305 |
| 16881 Lig1 | ligase I, DNA, ATP-dependent | 562.5651 | 427.5581963 | 697.5720042 | 1.63918372 | 0.712977565 | 4.69E-07 | 6.40E-05 |
| 319565 Syne2 | spectrin repeat containing, nuclear envelope 2 | 727.18094 | 554.5896075 | 899.372272 | 1.67308998 | 0.711133618 | 1.46E-06 | 0.000175 |
| 56150 Mad2l1 | MAD2 mitotic arrest deficient-like 1 | 263.99481 | 199.4698432 | 328.5197856 | 1.63596806 | 0.710144585 | 0.000751 | 0.038349 |
| 15366 Hmrr | hyaluronan mediated motility receptor (RHAMM) | 292.55466 | 222.2198786 | 362.8894497 | 1.6350321 | 0.709318962 | 0.000292 | 0.018644 |
| 14211 Smc2 | structural maintenance of chromosomes 2 | 791.89106 | 600.6400448 | 983.1420702 | 1.63274317 | 0.70729787 | 6.27E-08 | 1.14E-05 |
| 16647 Kpn2a | karyopherin (importin) alpha 2 | 1031.9108 | 789.6749593 | 1274.146582 | 1.626595959 | 0.701855609 | 1.42E-06 | 0.000172 |
| 224250 Clnd1 | claudin domain containing 1 | 828.21651 | 630.2314742 | 1026.201544 | 1.62130047 | 0.697151485 | 1.29E-07 | 2.07E-05 |
| 246727 Oas3 | 2'-5' oligoadenylate synthetase 3 | 687.5849 | 528.3117569 | 846.8580352 | 1.60689764 | 0.684278033 | 1.94E-07 | 2.95E-05 |
| 17132 Maf | avian musculoaponeurotic fibrosarcoma oncogene homolog | 2546.597 | 1962.433158 | 3130.760801 | 1.59803187 | 0.676296177 | 1.25E-09 | 3.32E-07 |
| 240641 Kif20b | kinesin family member 20B | 356.58666 | 273.97956 | 439.1937655 | 1.59739374 | 0.675719968 | 0.000122 | 0.008852 |
| 52502 Carhsp1 | calciump regulated heat stable protein 1 | 272.62604 | 209.5110461 | 335.7410394 | 1.59515803 | 0.673699355 | 0.000894 | 0.044256 |
| 74732 Stx11 | syntaxin 11 | 509.38728 | 392.0528319 | 626.7217312 | 1.58469969 | 0.664209463 | 0.000938 | 0.045694 |
| 12006 Axin2 | axin 2 | 650.34604 | 506.5780297 | 794.1140421 | 1.58246145 | 0.662170352 | 6.48E-06 | 0.000657 |
| 18968 Pola1 | polymerase (DNA directed), alpha 1 | 337.32147 | 262.869855 | 411.7730824 | 1.57799866 | 0.658059577 | 0.00031 | 0.019495 |
| 13723 Emb | embigin | 1668.9425 | 1296.503082 | 2041.381925 | 1.57347086 | 0.653950463 | 3.11E-10 | 8.74E-08 |
| 207278 Pde2a | phosphodiesterase 2A, cGMP-stimulated | 1891.3125 | 1471.431034 | 2311.1939518 | 1.56791522 | 0.64884755 | 4.04E-07 | 5.57E-05 |
| 54167 Icos | inducible T cell co-stimulator | 2329.4831 | 1819.4744 | 2839.491703 | 1.56514016 | 0.646291857 | 1.39E-07 | 2.21E-05 |
| 106618 Wdr90 | WD repeat domain 90 | 262.97184 | 206.2600791 | 319.6835912 | 1.56000673 | 0.641552251 | 0.002072 | 0.075674 |
| 16416 Itgb3 | integrin beta 3 | 1324.2679 | 1035.86426 | 1612.671562 | 1.5517768 | 0.637079415 | 3.08E-08 | 5.92E-06 |
| 276950 Slfn8 | schlafen 8 | 1668.0741 | 1307.947585 | 2028.200515 | 1.55430527 | 0.636269879 | 7.96E-05 | 0.006025 |
| 238377 Gpr68 | G protein-coupled receptor 68 | 1055.8945 | 828.6819015 | 1283.107003 | 1.54482009 | 0.627438831 | 2.77E-06 | 0.000314 |
| 242705 E2f2 | E2F transcription factor 2 | 1165.1095 | 920.0215032 | 1410.197398 | 1.5395064 | 0.622467868 | 1.05E-07 | 1.76E-05 |
| 66395 Ahnak | AHNAK nucleoprotein (desmoyokin) | 14953.876 | 11814.15982 | 18093.59175 | 1.5339327 | 0.617235183 | 2.60E-10 | 7.43E-08 |
| 18798 Plcb4 | phospholipase C, beta 4 | 291.57576 | 231.7759167 | 351.375606 | 1.52168527 | 0.605669999 | 0.002177 | 0.07777 |
| 16906 Lmnrb1 | lamin B1 | 1241.3375 | 986.8683089 | 1495.806769 | 1.51714526 | 0.601359227 | 1.05E-08 | 2.36E-06 |
| 67683 Pbdc1 | polysaccharide biosynthesis domain containing 1 | 343.73726 | 272.2336917 | 415.2318195 | 1.51598012 | 0.600250839 | 0.000988 | 0.046751 |
| 22718 Zfp60 | zinc finger protein 60 | 291.37285 | 230.9523277 | 351.7933632 | 1.51454412 | 0.59883601 | 0.002629 | 0.088698 |
| 227613 Tubb4b | tubulin, beta 4B class IVB | 1264.9711 | 1009.182266 | 1520.759963 | 1.50882469 | 0.593425189 | 2.27E-05 | 4.53E-06 |
| 54391 Rfk | riboflavin kinase | 738.49636 | 590.6939066 | 886.2988148 | 1.50712564 | 0.591799689 | 3.74E-06 | 0.00041 |
| 66599 Rdm1 | RAD52 motif 1 | 299.72271 | 240.1678699 | 359.2775418 | 1.50408919 | 0.588890117 | 0.001927 | 0.072883 |
| 107022 Gramd3 | GRAM domain containing 3 | 919.75898 | 734.1863975 | 1105.331555 | 1.50124495 | 0.586159397 | 4.60E-05 | 0.000486 |
| 20133 Rrm1 | ribonucleotide reductase M1 | 884.59296 | 712.887713 | 1056.298215 | 1.48797573 | 0.573350998 | 1.13E-05 | 0.001086 |
| 23959 Ntse | 5' nucleotidase, ecto | 3153.2827 | 2536.347301 | 3770.218141 | 1.48721653 | 0.572614707 | 5.93E-09 | 1.40E-06 |
| 12925 Crip1 | cysteine-rich protein 1 (intestinal) | 1487.969 | 1204.331604 | 1771.606382 | 1.478757524 | 0.564402789 | 6.88E-08 | 1.21E-05 |
| 76566 Rflnb | refilin B | 997.87975 | 810.0012424 | 1185.758256 | 1.47451674 | 0.560242204 | 0.000157 | 0.010942 |
| 94214 Spock2 | spark/osteonectin, cwcv and kazal-like domains proteoglycan 2 | 507.17518 | 409.9016148 | 604.4487491 | 1.47415212 | 0.559885402 | 0.000351 | 0.02113 |
| 12766 Cxcr3 | chemokine (C-X-C motif) receptor 3 | 925.62123 | 750.2417798 | 1101.000673 | 1.467319 | 0.553182551 | 5.64E-06 | 0.000589 |
| 218294 Cdc14b | CDC14 cell division cycle 14B | 477.80924 | 389.3810586 | 566.2374207 | 1.4663361 | 0.552215821 | 0.000711 | 0.036946 |
| 1E+08 Tigit | T cell immunoreceptor with Ig and ITIM domains | 707.92144 | 575.3169265 | 840.5259615 | 1.46358599 | 0.549507509 | 0.000271 | 0.017523 |
| 20591 Kdm5c | lysine (K)-specific demethylase 5C | 3146.2687 | 2554.49112 | 3738.046256 | 1.46438029 | 0.549403318 | 6.34E-08 | 1.14E-05 |
| 277360 Prex1 | phosphatidylinositol-3,4,5-trisphosphate-dependent Rac exchange | 3542.83232 | 288.660329 | 4203.004008 | 1.45735746 | 0.543345782 | 6.70E-07 | 8.66E-05 |
| 268451 Rab11fip4 | RAB11 family interacting protein 4 (class II) | 569.48205 | 469.0322796 | 669.9318134 | 1.44067068 | 0.526740592 | 0.000604 | 0.033412 |
| 12793 Cnhi1 | cornichon family AMPA receptor auxiliary protein 1 | 533.39868 | 439.10398 | 627.693382 | 1.43125883 | 0.517284597 | 0.000277 | 0.017826 |
| 19249 Ptpn13 | protein tyrosine phosphatase, non-receptor type 13 | 1557.7911 | 1280.352635 | 1835.229516 | 1.42961578 | 0.515627459 | 5.60E-05 | 0.004474 |
| 26905 Eif2s3 | eukaryotic translation initiation factor 2, subunit 3, structural gene | 3806.33738 | 3141.393593 | 4471.282051 | 1.42760681 | 0.513598691 | 1.09E-08 | 2.39E-06 |
| 232334 Vgl14 | vestigial like family member 4 | 387.17587 | 319.6263716 | 454.7253642 | 1.42171325 | 0.507630514 | 0.001818 | 0.069873 |
| 17158 Man2a1 | mannosidase 2, alpha 1 | 2216.9799 | 1833.305482 | 2600.654231 | 1.41804651 | 0.503904849 | 8.07E-07 | 0.000103 |
| 26397 Map2k3 | mitogen-activated protein kinase kinase 3 | 485.33159 | 401.2673381 | 569.3958409 | 1.41615433 | 0.501978495 | 0.001011 | 0.047017 |
| 54371 Chst2 | carbohydrate sulfotransferase 2 | 409.80876 | 338.9332387 | 480.6842776 | 1.41419774 | 0.499983856 | 0.002627 | 0.088698 |
| 56077 Dgke | dihydro | | | | | | | |

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|----------------|--|------------|--------------|-------------|-------------|--------------|----------|----------|
| 66151 Prr13 | proline rich 13 | 1828.9116 | 1521.485137 | 2136.337967 | 1.40768679 | 0.493326367 | 1.22E-06 | 0.000148 |
| 17318 Mid1 | midline 1 | 631.73481 | 527.292341 | 736.1772694 | 1.40242848 | 0.487927194 | 0.000989 | 0.046751 |
| 77891 Ube2s | ubiquitin-conjugating enzyme E2S | 592.16192 | 495.372742 | 688.9510938 | 1.40227583 | 0.487770158 | 0.001026 | 0.047434 |
| 223453 Dap | death-associated protein | 550.70902 | 460.593312 | 640.8247285 | 1.39318522 | 0.478387071 | 0.00091 | 0.044761 |
| 320790 Chd7 | chromodomain helicase DNA binding protein 7 | 1633.5948 | 1368.730089 | 1898.459474 | 1.3912672 | 0.476399519 | 1.73E-06 | 0.000204 |
| 81489 Dnajb1 | Dnaj heat shock protein family (Hsp40) member B1 | 719.8556 | 601.7565973 | 837.9546034 | 1.38817834 | 0.473192928 | 0.001076 | 0.04857 |
| 193742 Abhd16a | abhydrolase domain containing 16A | 526.46243 | 439.8815904 | 613.043277 | 1.38539727 | 0.470299739 | 0.002234 | 0.078813 |
| 217069 Trim25 | tripartite motif-containing 25 | 1717.3655 | 1439.459768 | 1995.271223 | 1.38523567 | 0.470131439 | 4.22E-06 | 0.000454 |
| 240354 Malt1 | MALT1 paracaspase | 1920.9607 | 1609.101038 | 2232.820454 | 1.38464328 | 0.469514348 | 0.000391 | 0.023103 |
| 16407 Itgae | integrin alpha E, epithelial-associated | 1161.8071 | 972.6109889 | 1351.00313 | 1.38442689 | 0.46928887 | 0.002557 | 0.087285 |
| 12053 Bcl6 | B cell leukemia/lymphoma 6 | 588.93021 | 493.3380538 | 684.5223675 | 1.38280674 | 0.467599539 | 0.001056 | 0.048193 |
| 12399 Runx3 | runt related transcription factor 3 | 703.23481 | 593.5558094 | 812.9131848 | 1.37531122 | 0.459758121 | 0.000661 | 0.035259 |
| 70025 Acot7 | acyl-CoA thioesterase 7 | 648.9581 | 545.5343317 | 752.3818636 | 1.37520973 | 0.459651652 | 0.0021 | 0.075935 |
| 218442 Serinc5 | serine incorporator 5 | 818.36332 | 689.8598721 | 946.8307661 | 1.37285153 | 0.457175607 | 0.000965 | 0.045926 |
| 63986 Gmfg | glia maturation factor, gamma | 1107.4162 | 938.6964647 | 1276.135863 | 1.36727187 | 0.451300136 | 8.15E-05 | 0.000138 |
| 72828 Ubash3b | ubiquitin associated and SH3 domain containing, B | 1050.6677 | 887.0876678 | 1214.247672 | 1.36419538 | 0.448050284 | 0.000267 | 0.017428 |
| 212307 Mapre2 | microtubule-associated protein, RP/EB family, member 2 | 799.66091 | 678.9323898 | 920.3894203 | 1.35762972 | 0.441090047 | 0.001102 | 0.049076 |
| 19108 Prkx | protein kinase, X-linked | 873.21741 | 745.7760878 | 1000.658726 | 1.35057925 | 0.433578292 | 0.000627 | 0.034259 |
| 71914 Antxr2 | anthrax toxin receptor 2 | 612.17541 | 521.0363562 | 703.3145457 | 1.34864233 | 0.431507784 | 0.001898 | 0.072008 |
| 67967 Pold3 | polymerase (DNA-directed), delta 3, accessory subunit | 666.88271 | 568.9142009 | 764.8512242 | 1.34715899 | 0.42992013 | 0.002092 | 0.075823 |
| 19395 Rasgrp2 | RAS, guanyl releasing protein 2 | 2693.2728 | 2300.205937 | 3086.339685 | 1.34351668 | 0.42601423 | 0.000542 | 0.030575 |
| 93692 Glrx | glutaredoxin | 765.47232 | 655.5504488 | 875.394192 | 1.34078875 | 0.423081948 | 0.000805 | 0.040403 |
| 16728 Licam | L1 cell adhesion molecule | 742.49632 | 635.3233742 | 849.6692587 | 1.33841977 | 0.420530659 | 0.001111 | 0.049279 |
| 13244 Degs1 | delta(4)-desaturase, sphingolipid 1 | 724.25294 | 620.7224505 | 827.7834276 | 1.33135356 | 0.414842965 | 0.00144 | 0.059098 |
| 17218 Mcm5 | minichromosome maintenance complex component 5 | 1003.762 | 862.8774762 | 1144.646447 | 1.33252501 | 0.41416261 | 0.000434 | 0.024851 |
| 381290 Atp2b4 | ATPase, Ca++ transporting, plasma membrane 4 | 1271.2756 | 1093.197898 | 1449.353234 | 1.33058369 | 0.412059249 | 0.000963 | 0.045926 |
| 20866 Stim1 | stromal interaction molecule 1 | 1382.3048 | 1188.470495 | 1576.139089 | 1.32984976 | 0.411263269 | 0.000207 | 0.013971 |
| 321019 Gpr183 | G protein-coupled receptor 183 | 926.45737 | 796.71269819 | 1056.202032 | 1.32766819 | 0.408894638 | 0.000409 | 0.023811 |
| 20194 S100a10 | S100 calcium binding protein A10 (calpastatin) | 3241.4975 | 2797.809007 | 3685.19417 | 1.32261824 | 0.403396697 | 3.23E-05 | 0.002789 |
| 108148 Galnt2 | UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminidase | 1060.534 | 913.6688997 | 1207.399097 | 1.32077991 | 0.401390083 | 0.000336 | 0.020601 |
| 16491 Kcn3 | potassium voltage-gated channel, shaker-related subfamily, member 3 | 1292.8668 | 1113.334052 | 1472.399617 | 1.31936156 | 0.399839978 | 0.000706 | 0.036844 |
| 76933 Ifi27l2a | interferon, alpha-inducible protein 27 like 2A | 2486.244 | 2149.333658 | 2823.154295 | 1.31838333 | 0.398769909 | 0.000426 | 0.024607 |
| 56700 Glmp | glycosylated lysosomal membrane protein | 1047.932 | 908.7195968 | 1187.143441 | 1.3102117 | 0.389799932 | 0.00066 | 0.035259 |
| 218756 Slc4a7 | solute carrier family 4, sodium bicarbonate cotransporter, member 1 | 2119.0579 | 1835.778321 | 2402.337421 | 1.30917182 | 0.38865445 | 0.000736 | 0.037863 |
| 14605 Tsc22d3 | TSC22 domain family, member 3 | 1953.4564 | 1698.833743 | 2208.079081 | 1.30391886 | 0.382854099 | 7.05E-05 | 0.005509 |
| 67887 Saraf | store-operated calcium entry-associated regulatory factor | 3488.3855 | 3032.20469 | 3944.566358 | 1.30274818 | 0.381558235 | 0.000954 | 0.045844 |
| 107823 Whsc1 | Wolf-Hirschhorn syndrome candidate 1 (human) | 1327.083 | 1156.93737 | 1497.228585 | 1.30119325 | 0.379835247 | 0.001625 | 0.065026 |
| 11891 Rab27a | RAB27A, member RAS oncogene family | 1461.4367 | 1271.423841 | 1651.449586 | 1.29802693 | 0.37632031 | 0.00054 | 0.030549 |
| 266690 Cyb5r4 | cytochrome b5 reductase 4 | 802.88041 | 700.22744847 | 905.533793 | 1.2971906 | 0.375390479 | 0.002687 | 0.089822 |
| 94176 Dock2 | dedicator of cyto-kinase 2 | 11699.715 | 10201.85121 | 13197.57866 | 1.29590267 | 0.373957366 | 1.24E-05 | 0.001188 |
| 27224 Tceb3 | transcription elongation factor B (SII), polypeptide 3 | 1267.6296 | 1103.728928 | 1431.530232 | 1.29428722 | 0.372157804 | 0.00152 | 0.06167 |
| 234736 Rfw3d | ring finger and WD repeat domain 3 | 1295.6748 | 1132.928703 | 1458.420846 | 1.288901 | 0.366141458 | 0.001605 | 0.0646 |
| 192176 Flna | filamin, alpha | 17804.32 | 15590.15241 | 20018.48854 | 1.28649569 | 0.363446168 | 6.40E-05 | 0.005056 |
| 83671 Syt2 | synaptotagmin-like 2 | 967.21239 | 847.4054313 | 1087.019339 | 1.28281361 | 0.359311566 | 0.002195 | 0.078022 |
| 226971 Plekhb2 | pleckstrin homology domain containing, family B (evection) member 1 | 1501.5096 | 1315.131547 | 1687.887687 | 1.28148896 | 0.357821044 | 0.001079 | 0.04857 |
| 77446 Heg1 | heart development protein with EGF-like domains 1 | 927.88831 | 813.4490723 | 1042.318543 | 1.280904032 | 0.357203262 | 0.002262 | 0.079597 |
| 21346 Tagln2 | transgelin 2 | 2313.8428 | 2035.434668 | 2592.251027 | 1.27958912 | 0.355680632 | 0.00125 | 0.05354 |
| 68192 Leprot1 | leptin receptor overlapping transcript-like 1 | 2744.9074 | 2414.002611 | 3075.812243 | 1.27678523 | 0.352515867 | 0.002192 | 0.078022 |
| 12452 Cncg2 | cyclin G2 | 1287.7843 | 1133.219595 | 1442.348926 | 1.2747816 | 0.350351947 | 0.001233 | 0.053112 |
| 18771 Pknx1 | Pbx/knotted 1 homeobox | 915.25298 | 805.3960611 | 1025.10989 | 1.27388405 | 0.349233965 | 0.002615 | 0.088636 |
| 52398 11-Sep | septin 11 | 1271.8752 | 1120.801136 | 1422.49928 | 1.27255012 | 0.347722479 | 0.000792 | 0.04001 |
| 16561 Kif1b | kinesin family member 1B | 3228.5561 | 2848.593366 | 3608.518837 | 1.27088205 | 0.345830135 | 0.000108 | 0.007986 |
| 13611 S1pr4 | sphingosine-1-phosphate receptor 4 | 1890.7097 | 1667.742394 | 2113.676933 | 1.268669295 | 0.343342953 | 0.00064 | 0.03462 |
| 12193 Zfp36l2 | zinc finger protein 36, C3H type-like 2 | 6312.0089 | 5576.600859 | 7047.416979 | 1.26621424 | 0.340521523 | 4.80E-05 | 0.004009 |
| 22234 Ugcg | UDP-glucose ceramide glucosyltransferase | 2041.051 | 1805.504864 | 2276.597101 | 1.26540319 | 0.339597136 | 0.002353 | 0.081075 |
| 72313 Fryl | FRY like transcription coactivator | 6063.2161 | 5355.173094 | 6771.25916 | 1.26530022 | 0.3394974 | 0.001038 | 0.047813 |
| 16328 Cep250 | centrosomal protein 250 | 2073.8441 | 1831.703765 | 2315.984354 | 1.26478338 | 0.338890312 | 0.000466 | 0.026538 |
| 12505 Cd44 | CD44 antigen | 2269.0316 | 2005.123002 | 2532.940219 | 1.26411457 | 0.338127219 | 0.000925 | 0.045185 |
| 20737 Spn | sialophorin | 7959.6281 | 7036.979053 | 8882.27714 | 1.26383964 | 0.33781342 | 0.00025 | 0.01643 |
| 11630 Aim1 | absent in melanoma 1 | 1837.9258 | 1624.135968 | 2051.71562 | 1.26133697 | 0.334953746 | 0.002328 | 0.080703 |
| 14229 Fkbp5 | FK506 binding protein 5 | 1305.1374 | 1156.115853 | 1454.158863 | 1.25999708 | 0.333420385 | 0.001612 | 0.06469 |
| 13417 Dnah8 | dynein, axonemal, heavy chain 8 | 2636.9774 | 2347.356294 | 2926.598434 | 1.24707027 | 0.318542757 | 0.000891 | 0.044256 |
| 114601 Ehb11 | EH domain binding protein 1-like 1 | 1392.66338 | 1242.462245 | 1542.865302 | 1.24384582 | 0.314818102 | 0.001827 | 0.070045 |
| 16886 Limk2 | LIM motif-containing protein kinase 2 | 1432.8467 | 1279.281025 | 1586.412332 | 1.24166351 | 0.312274261 | 0.001959 | 0.073187 |
| 12450 Cncg1 | cyclin G1 | 2723.3598 | 2433.456737 | 3013.262828 | 1.24030905 | 0.310699642 | 0.00064 | 0.03462 |
| 16172 Il17ra | interleukin 17 receptor A | 3018.0773 | 2698.127762 | 3338.026882 | 1.237261619 | 0.307150089 | 0.002036 | 0.075094 |
| 18810 Plec | plectin | 9449.6515 | 8456.883932 | 10442.41909 | 1.23687054 | 0.306694509 | 0.000467 | 0.026538 |
| 106143 Cggbp1 | CGG triplet repeat binding protein 1 | 2109.7233 | 1889.089597 | 2330.357062 | 1.23474399 | 0.304211947 | 0.001995 | 0.073955 |
| 17758 Map4 | microtubule-associated protein 4 | 2484.7507 | 2238.05886 | 2731.442467 | 1.22499072 | 0.292770816 | 0.00266 | 0.089127 |
| 78885 Coro7 | coronin 7 | 2705.4934 | 2435.352453 | 2975.634337 | 1.22224378 | 0.289532062 | 0.00304 | 0.097173 |
| 78829 Tsc22d4 | TSC22 domain family, member 4 | 2450.9229 | 2216.525103 | 2685.320756 | 1.21307647 | 0.2786705 | 0.00261 | 0.088636 |
| 16985 Lsp1 | lymphocyte specific 1 | 6669.4124 | 6050.093651 | 7288.731149 | 1.20770289 | 0.272265577 | 0.001213 | 0.052415 |
| 12227 Btg2 | B cell translocation gene 2, anti-proliferative | 3546.1572 | 3222.361855 | 3869.952528 | 1.20239286 | 0.265908343 | 0.002874 | 0.093493 |
| 18148 Npm1 | nucleophosmin 1 | 10567.705 | 11550.26888 | 9585.140668 | 0.83223874 | -0.264930658 | 0.002946 | 0.094694 |
| 20115 Rps7 | ribosomal protein S7 | 17257.049 | 18900.2018 | 15613.89713 | 0.82833336 | -0.271716601 | 0.002051 | 0.075445 |
| 77305 Wdr82 | WD repeat domain containing 82 | 5109.0029 | 5606.575137 | 4611.43067 | 0.82447415 | -0.278453836 | 0.001014 | 0.04702 |
| 55949 Eef1b2 | eukaryotic translation elongation factor 1 beta 2 | 10097.495 | 1112.27264 | 9082.717705 | 0.81987509 | -0.286523974 | 0.002998 | 0.096038 |
| 269261 Rpl12 | ribosomal protein L12 | 21033.176 | 23152.64259 | 18913.70922 | 0.81906216 | -0.28795515 | 0.001285 | 0.0544 |
| 19934 Rpl22 | ribosomal protein L22 | 6083.875 | 6700.098511 | 5467.65151 | 0.81885948 | -0.288312202 | 0.002726 | 0.090501 |
| 20044 Rps14 | ribosomal protein S14 | 20122.416 | 22154.60772 | 18090.22441 | 0.81875081 | -0.288503674 | 0.001701 | 0.066783 |
| 12700 Cish | cytokine inducible SH2-containing protein | 3084.0922 | 3393.7929 | 2774.391426 | 0.81840002 | -0.289121914 | 0.002121 | 0.076305 |
| 78334 Cdk19 | cyclin-dependent kinase 19 | 2472.2564 | 2726.835121 | 2217.677668 | 0.81581061 | -0.293 | | |

| | | | | | | | | | |
|----------|-----------|--|------------|--------------|--------------|------------|--------------|----------|----------|
| 22781 | Ikzf4 | IKAROS family zinc finger 4 | 2484.2994 | 2739.596147 | 2229.00261 | 0.81532449 | -0.29455374 | 0.001412 | 0.058538 |
| 68052 | Rps13 | ribosomal protein S13 | 12971.886 | 14317.93064 | 11625.84177 | 0.81439663 | -0.296196497 | 0.002934 | 0.094694 |
| 270106 | Rpl13 | ribosomal protein L13 | 18594.775 | 20539.245 | 16650.30572 | 0.8129094 | -0.29883353 | 0.002214 | 0.078493 |
| 20084 | Rps18 | ribosomal protein S18 | 17053.47 | 18893.26016 | 15213.68041 | 0.80743764 | -0.308577253 | 0.00067 | 0.035458 |
| 1.01E+08 | Rpl5 | ribosomal protein L5 | 27169.42 | 30163.42573 | 24175.41426 | 0.80359954 | -0.31545136 | 0.00073 | 0.037664 |
| 21942 | Tnfrsf9 | tumor necrosis factor receptor superfamily, member 9 | 1598.4243 | 1773.92835 | 1422.920336 | 0.80328626 | -0.316013904 | 0.001786 | 0.069021 |
| 14469 | Gbp2 | guanylate binding protein 2 | 2081.791 | 2314.705581 | 1848.876464 | 0.80013631 | -0.321682308 | 0.0017 | 0.066783 |
| 14455 | Gas5 | growth arrest specific 5 | 2708.4661 | 3017.74481 | 2399.187448 | 0.79738682 | -0.326648336 | 0.00037 | 0.020601 |
| 18197 | Nsg2 | neuron specific gene family member 2 | 3732.4729 | 4161.733614 | 3303.212178 | 0.79599065 | -0.32917662 | 0.000408 | 0.023811 |
| 107508 | Eprs | glutamyl-prolyl-tRNA synthetase | 2300.4749 | 2565.738242 | 2035.211469 | 0.79545438 | -0.330148896 | 0.000424 | 0.02455 |
| 67427 | Rps20 | ribosomal protein S20 | 12209.417 | 13620.80016 | 10798.03452 | 0.79519647 | -0.330616741 | 0.001903 | 0.072008 |
| 18432 | Myybp1a | MYB binding protein (P160) 1a | 3254.4761 | 3630.416321 | 2878.535844 | 0.79475242 | -0.331422595 | 0.000176 | 0.012156 |
| 19951 | Rpl32 | ribosomal protein L32 | 8887.4479 | 9918.861134 | 7856.034741 | 0.79444664 | -0.33197778 | 0.000345 | 0.020905 |
| 104721 | Ddx1 | DEAD (Asp-Glu-Ala-Asp) box polypeptide 1 | 1351.3888 | 1509.794684 | 1192.982972 | 0.79215364 | -0.336147829 | 0.00101 | 0.047017 |
| 12043 | Bcl2 | B cell leukemia/lymphoma 2 | 8101.0684 | 9053.925263 | 7148.211513 | 0.79120334 | -0.337879579 | 7.75E-05 | 0.005899 |
| 55932 | Gbp3 | guanylate binding protein 3 | 1657.9516 | 1852.853637 | 1463.049484 | 0.78999664 | -0.340081575 | 0.000766 | 0.039002 |
| 20088 | Rps24 | ribosomal protein S24 | 1994.73 | 22394.93361 | 17594.5267 | 0.78788827 | -0.343937039 | 0.001405 | 0.058538 |
| 16185 | Il2rb | interleukin 2 receptor, beta chain | 13746.832 | 15390.4361 | 12103.22831 | 0.78784747 | -0.344011747 | 8.32E-05 | 0.006233 |
| 78473 | Skap1 | src family associated phosphoprotein 1 | 3588.7801 | 4020.619415 | 3156.940884 | 0.78714303 | -0.34530284 | 0.000316 | 0.019741 |
| 12703 | Socs1 | suppressor of cytokine signaling 1 | 1184.0112 | 1327.739099 | 1040.283283 | 0.78692109 | -0.345709129 | 0.001389 | 0.058306 |
| 13040 | Ctss | cathepsin S | 3689.0767 | 4135.290835 | 3242.862482 | 0.78655464 | -0.346381115 | 0.000549 | 0.030873 |
| 19171 | Psmb10 | proteasome (prosome, macropain) subunit, beta type 10 | 1635.3872 | 1835.673933 | 1435.100389 | 0.78605811 | -0.347292136 | 0.002159 | 0.077298 |
| 64931 | Izumo1r | iZUMO1 receptor, JUNO | 8384.4644 | 9397.466791 | 7371.462059 | 0.78599376 | -0.347410243 | 2.91E-05 | 0.002563 |
| 68259 | If80 | intraflagellar transport 80 | 8824.3977 | 9904.393603 | 7744.401781 | 0.78339692 | -0.352184648 | 6.65E-05 | 0.005225 |
| 20085 | Rps19 | ribosomal protein S19 | 10744.76 | 12067.60472 | 9421.914919 | 0.78315047 | -0.352638578 | 0.000343 | 0.020879 |
| 74340 | Ahcy2 | S-adenosylhomocysteine hydrolase-like 2 | 4275.8895 | 4805.303236 | 3746.475703 | 0.78146833 | -0.355740684 | 5.56E-05 | 0.004461 |
| 267019 | Rps15a | ribosomal protein S15A | 10538.77 | 11849.80663 | 9227.732404 | 0.78104359 | -0.356525029 | 0.000129 | 0.009198 |
| 319638 | NT5dc1 | 5'-nucleotidase domain containing 1 | 908.6972 | 1023.588398 | 793.8060388 | 0.77773134 | -0.362656218 | 0.002331 | 0.080703 |
| 75812 | Tasp1 | taspase, threonine aminopeptidase | 1123.0192 | 1266.472466 | 979.5658928 | 0.77632255 | -0.365271898 | 0.000889 | 0.044256 |
| 19982 | Rpl36a | ribosomal protein L36A | 4845.999 | 5467.965771 | 4224.032166 | 0.77548872 | -0.366822297 | 0.000666 | 0.035396 |
| 72462 | Rrp1b | ribosomal RNA processing 1 homolog B (S. cerevisiae) | 928.76166 | 1047.556241 | 809.9076786 | 0.77471155 | -0.368268843 | 0.001416 | 0.058538 |
| 212528 | Trmt1 | tRNA methyltransferase 1 | 958.5398 | 1082.380639 | 834.6873299 | 0.77419107 | -0.369238436 | 0.001671 | 0.066157 |
| 55989 | Nop58 | NOP58 ribonucleoprotein | 1792.2404 | 2026.558586 | 1557.921254 | 0.77153555 | -0.374195458 | 0.000349 | 0.021092 |
| 75909 | Vmp1 | vacuole membrane protein 1 | 1594.1537 | 1807.155667 | 1381.151666 | 0.76529498 | -0.385912151 | 0.001418 | 0.058538 |
| 234407 | Colgalt1 | collagen beta(1-O)galactosyltransferase 1 | 910.13554 | 1034.646945 | 785.6241438 | 0.7638328 | -0.38867122 | 0.001458 | 0.059473 |
| 68028 | Rpl22l1 | ribosomal protein L22 like 1 | 925.244247 | 1050.89919 | 799.5893431 | 0.76257344 | -0.391051812 | 0.001308 | 0.054978 |
| 245474 | Dkc1 | dyskeratosis congenita 1, dyskerin | 1435.0657 | 1635.961766 | 1234.169705 | 0.75903021 | -0.397770785 | 0.000583 | 0.032373 |
| 225215 | Rsl24d1 | ribosomal L24 domain containing 1 | 790.31549 | 900.8598228 | 679.771655 | 0.75771528 | -0.400272254 | 0.001918 | 0.07236 |
| 67247 | 2-Mar | mitochondrial amidoxime reducing component 2 | 1035.7327 | 1184.488414 | 886.9769347 | 0.75445394 | -0.406529689 | 0.002879 | 0.093493 |
| 97112 | Nmd3 | NMD3 ribosome export adaptor | 660.29565 | 754.9937018 | 565.5975936 | 0.75219261 | -0.410825957 | 0.00203 | 0.075085 |
| 17319 | Mif | macrophage migration inhibitory factor | 1011.7107 | 1160.08093 | 863.3332406 | 0.74971583 | -0.415584227 | 0.002489 | 0.085151 |
| 12696 | Cirbp | cold inducible RNA binding protein | 1630.1588 | 1867.014856 | 1393.302774 | 0.74797406 | -0.418939857 | 5.32E-05 | 0.004307 |
| 12702 | Socs3 | suppressor of cytokine signaling 3 | 2780.4856 | 3186.897807 | 2374.073397 | 0.74698842 | -0.42084209 | 1.98E-05 | 0.001811 |
| 211329 | Ncoa7 | nuclear receptor coactivator 7 | 1631.0393 | 1873.031108 | 1389.047576 | 0.74341885 | -0.427752835 | 2.18E-05 | 0.001966 |
| 19672 | Rcn1 | reticulocalbin 1 | 1763.1281 | 2030.590789 | 1495.6655059 | 0.73723231 | -0.439826603 | 1.11E-05 | 0.001085 |
| 72141 | Adpgk | ADP-dependent glucokinase | 1160.7743 | 1338.41169 | 983.1369459 | 0.7371462 | -0.439977319 | 4.10E-05 | 0.003478 |
| 17863 | Myb | myeloblastosis oncogene | 835.86179 | 964.4551437 | 707.268434 | 0.73577687 | -0.442659777 | 0.001007 | 0.047017 |
| 60440 | ligrp1 | interferon inducible GTPase 1 | 2435.8403 | 2811.774587 | 2059.906102 | 0.73414242 | -0.445868128 | 0.001081 | 0.04857 |
| 78751 | Zc3h6 | zinc finger CCCH type containing 6 | 782.95095 | 905.3218891 | 660.5800181 | 0.73287421 | -0.448362491 | 0.001695 | 0.066783 |
| 264064 | Cdk8 | cyclin-dependent kinase 8 | 618.76886 | 716.0895937 | 521.4481284 | 0.73181125 | -0.450456495 | 0.001423 | 0.058538 |
| 15382 | Hnrnpa1 | heterogeneous nuclear ribonucleoprotein A1 | 589.36478 | 681.842343 | 496.8872101 | 0.73115438 | -0.451752044 | 0.001186 | 0.051578 |
| 77963 | Hook1 | hook microtubule tethering protein 1 | 567.08411 | 656.8116702 | 477.3565526 | 0.72966985 | -0.454684255 | 0.001097 | 0.049076 |
| 627872 | Dnah7a | dynein, axonemal, heavy chain 7A | 570.94747 | 660.9358303 | 480.9591125 | 0.7279522 | -0.458084385 | 0.002763 | 0.090697 |
| 232187 | Smyd5 | SET and MYND domain containing 5 | 575.63775 | 667.0967504 | 484.1787452 | 0.72676281 | -0.460443502 | 0.000954 | 0.045844 |
| 16992 | Lta | lymphotoxin A | 1180.5876 | 1368.249068 | 992.9260951 | 0.7250621 | -0.463823534 | 5.02E-05 | 0.004167 |
| 328833 | Trem1 | triggering receptor expressed on myeloid cells-like 2 | 1793.6203 | 2081.380141 | 1505.860505 | 0.72426911 | -0.465402258 | 6.69E-06 | 0.000674 |
| 108052 | Slc14a1 | solute carrier family 14 (urea transporter), member 1 | 1539.3286 | 1793.477541 | 1285.179655 | 0.71734898 | -0.47925295 | 1.74E-06 | 0.000204 |
| 241041 | Gm4956 | predicted gene 4956 | 2357.9625 | 2751.769693 | 1964.15526 | 0.71591311 | -0.482143605 | 2.17E-07 | 3.23E-05 |
| 23890 | Gpr34 | G protein-coupled receptor 34 | 518.93533 | 606.5550157 | 431.3156502 | 0.71567829 | -0.482616872 | 0.002277 | 0.079758 |
| 209378 | Ith5 | inter-alpha (globulin) inhibitor H5 | 1462.1682 | 1704.902706 | 1219.433666 | 0.71474111 | -0.484507318 | 8.91E-05 | 0.000886 |
| 78697 | Pus7 | pseudouridylyl synthase 7 | 514.10769 | 600.1057937 | 428.1095893 | 0.71447211 | -0.485050403 | 0.001067 | 0.048552 |
| 16184 | Il2ra | interleukin 2 receptor, alpha chain | 11624.953 | 13601.956453 | 9647.949685 | 0.7051833 | -0.493056225 | 2.67E-07 | 3.82E-05 |
| 17869 | Myc | myelocytomatosis oncogene | 1876.7371 | 2199.541744 | 1553.9324423 | 0.70928281 | -0.495567117 | 5.98E-07 | 7.86E-05 |
| 108888 | Atad3a | ATPase family, AAA domain containing 3A | 662.49754 | 776.53212 | 548.4629645 | 0.70851465 | -0.497130411 | 0.000163 | 0.011274 |
| 212943 | Fam46a | family with sequence similarity 46, member A | 876.34192 | 1028.971708 | 723.7121326 | 0.70723104 | -0.499746497 | 4.80E-05 | 0.004009 |
| 13041 | Ctss | cathepsin W | 756.6683 | 888.6842055 | 624.6524022 | 0.70655034 | -0.501135751 | 0.000101 | 0.007533 |
| 11792 | Apex1 | apurinic/apyrimidinic endonuclease 1 | 492.99994 | 579.0520224 | 406.9478571 | 0.70431714 | -0.505702898 | 0.000952 | 0.045844 |
| 76273 | Ndfip2 | Nedd4 family interacting protein 2 | 767.20972 | 904.7860842 | 629.6333605 | 0.70100674 | -0.512499779 | 0.000825 | 0.041277 |
| 1.02E+08 | Mir6240 | microRNA 6240 | 1122.2863 | 1326.859173 | 917.7134236 | 0.69673256 | -0.521323109 | 0.000693 | 0.036402 |
| 100201 | Tmem64 | transmembrane protein 64 | 3072.2101 | 3631.334975 | 2513.085285 | 0.6946256 | -0.526404049 | 5.39E-08 | 1.01E-05 |
| 353282 | Sfmbt2 | Scm-like with four mbt domains 2 | 351.92362 | 419.3594803 | 284.4877608 | 0.68225112 | -0.55162524 | 0.002701 | 0.090068 |
| 319278 | A230050P2 | RIKEN cDNA A230050P20 gene | 453.62893 | 539.9541592 | 367.3037037 | 0.68165139 | -0.552893992 | 0.000281 | 0.018005 |
| 12335 | Capn3 | calpain 3 | 640.11285 | 761.5462759 | 518.6794213 | 0.68025577 | -0.555850812 | 0.000628 | 0.034259 |
| 16763 | Lad1 | ladinin | 402.03474 | 479.2687915 | 324.800686 | 0.67912143 | -0.558258533 | 0.001889 | 0.072008 |
| 240665 | Ccnj | cyclin J | 318.35883 | 380.4078399 | 256.3098102 | 0.67490173 | -0.567250647 | 0.001807 | 0.069652 |
| 20191 | Ryr2 | ryanodine receptor 2, cardiac | 357.2745 | 428.5280081 | 286.0209917 | 0.67212487 | -0.573198811 | 0.00206 | 0.075445 |
| 107771 | Bmyc | brain expressed myelocytomatosis oncogene | 512.61454 | 613.6397691 | 411.5893053 | 0.67049134 | -0.576709407 | 0.000246 | 0.016267 |
| 20779 | Src | Rous sarcoma oncogene | 284.81963 | 342.9096222 | 226.7296409 | 0.66545866 | -0.587579044 | 0.002941 | 0.094694 |
| 319636 | Fsd1 | fibronectin type III and SPRY domain containing 1-like | 455.17195 | 548.2500117 | 362.0938896 | 0.65970891 | -0.600098512 | | |

| | | | | | | | | |
|-------------------|--|-----------|-------------|-------------|------------|--------------|-----------|-----------|
| 76459 Car12 | carbonic anhydrase 12 | 312.50053 | 380.6015951 | 244.3994676 | 0.64379221 | -0.635332976 | 0.000721 | 0.037327 |
| 434215 Lrrc32 | leucine rich repeat containing 32 | 4958.975 | 6049.182767 | 3868.767255 | 0.64056152 | -0.642509062 | 8.72E-13 | 3.75E-10 |
| 19782 Rmrp | RNA component of mitochondrial RNAase P | 271.89926 | 333.0616565 | 210.736868 | 0.638511 | -0.647216629 | 0.002267 | 0.079597 |
| 216233 Soc52 | suppressor of cytokine signaling 2 | 1147.6606 | 1405.109165 | 890.2119403 | 0.63648087 | -0.651810932 | 6.59E-08 | 1.17E-05 |
| 226830 Smyd2 | SET and MYND domain containing 2 | 354.43748 | 434.7881365 | 274.0868286 | 0.62863468 | -0.669706242 | 0.000361 | 0.021542 |
| 14460 Gata1 | GATA binding protein 1 | 473.6559 | 587.0549114 | 360.256879 | 0.61759675 | -0.695262937 | 6.86E-06 | 0.000687 |
| 14608 Gpr83 | G protein-coupled receptor 83 | 2652.1424 | 3318.160415 | 1986.124463 | 0.60044285 | -0.735901155 | 1.71E-15 | 1.09E-12 |
| 17075 Epcam | epithelial cell adhesion molecule | 204.18852 | 256.7094528 | 151.6675871 | 0.59266376 | -0.754714265 | 0.002481 | 0.085082 |
| 216856 Nlgn2 | neuroligin 2 | 270.00818 | 342.7639173 | 197.2524395 | 0.57823094 | -0.790282279 | 0.000316 | 0.019741 |
| 102436 Lars2 | leucyl-tRNA synthetase, mitochondrial | 65150.878 | 82888.50615 | 47413.24942 | 0.5736556 | -0.80174072 | 3.20E-05 | 0.002781 |
| 50778 Rgs1 | regulator of G-protein signaling 1 | 3063.7919 | 3915.206925 | 2212.376796 | 0.56685823 | -0.818940131 | 3.82E-18 | 2.94E-15 |
| 55943 Stx8 | syntaxis 8 | 241.7464 | 312.9301645 | 170.5626413 | 0.55030984 | -0.861683969 | 0.000261 | 0.017067 |
| 18551 Pcsk4 | proprotein convertase subtilisin/kexin type 4 | 155.60567 | 202.5249832 | 108.6863606 | 0.53984078 | -0.889394141 | 0.002367 | 0.081345 |
| 1.01E+08 Rn45s | 45S pre-ribosomal RNA | 224052.43 | 291453.8371 | 156651.0183 | 0.53906055 | -0.891480769 | 0.000192 | 0.013135 |
| 15001 H2-Oa | histocompatibility 2, O region alpha locus | 194.69151 | 255.9323604 | 133.4506527 | 0.527099 | -0.923854142 | 0.000901 | 0.044451 |
| 72655 Snhg5 | small nucleolar RNA host gene 5 | 454.79101 | 596.6610716 | 312.9209496 | 0.52641417 | -0.925729762 | 4.18E-09 | 1.02E-06 |
| 66412 Arrdc4 | arrestin domain containing 4 | 395.60213 | 520.2086236 | 270.9956458 | 0.52594384 | -0.927019339 | 2.21E-06 | 0.000253 |
| 79221 Hdac9 | histone deacetylase 9 | 252.30833 | 333.0125703 | 171.6040917 | 0.520893 | -0.940941042 | 7.26E-05 | 0.005614 |
| 1.02E+08 Mir6236 | microRNA 6236 | 4741.9547 | 6303.870241 | 3180.039132 | 0.50635675 | -0.981773918 | 9.40E-05 | 0.000928 |
| 74931 4930481A1 | RIKEN cDNA 4930481A15 gene | 123.88749 | 164.3974497 | 83.37752301 | 0.50633909 | -0.981824242 | 0.002851 | 0.093168 |
| 117592 B3galta | UDP-Gal:betaGal beta 1,3-galactosyltransferase, polypeptide 6 | 139.05394 | 184.9650202 | 93.14285179 | 0.50339204 | -0.990245705 | 0.002638 | 0.088789 |
| 18823 Plp1 | protoolipid protein (myelin) 1 | 598.57209 | 821.971096 | 375.172471 | 0.45977149 | -1.121011086 | 0.001007 | 0.047017 |
| 16667 Krt17 | keratin 17 | 881.84162 | 1222.307963 | 541.375285 | 0.44566951 | -1.165953829 | 0.001408 | 0.058538 |
| 16664 Krt14 | keratin 14 | 1074.3782 | 1490.071301 | 658.6851182 | 0.44454659 | -1.169593465 | 0.002331 | 0.080703 |
| 212531 Sh3bgrl2 | SH3 domain binding glutamic acid-rich protein like 2 | 464.87967 | 656.1931815 | 273.5780136 | 0.41886491 | -1.255443068 | 9.03E-16 | 5.99E-13 |
| 22139 Ttr | transthyretin | 1224.2556 | 1736.537509 | 711.9736568 | 0.4121487 | -1.278763161 | 0.002721 | 0.090501 |
| 239673 Krt90 | keratin 90 | 118.83324 | 172.6896765 | 64.97681146 | 0.38182657 | -1.389010601 | 0.001734 | 0.067374 |
| 109052 Krt75 | keratin 75 | 102.84234 | 156.8750639 | 48.80960943 | 0.31629114 | -1.660674957 | 0.002949 | 0.094694 |
| 547176 Zc3h12b | zinc finger CCHC-type containing 12B | 51.071395 | 78.14767613 | 23.99511446 | 0.3120922 | -1.679955816 | 0.001271 | 0.054201 |
| 171167 Fut10 | fucosyltransferase 10 | 117.80444 | 181.9093623 | 53.66951 | 0.29434768 | -1.764406838 | 1.06E-06 | 0.000134 |
| 19215 Ptgs2 | prostaglandin D2 synthase (brain) | 51.394267 | 80.28157268 | 22.50696216 | 0.28498567 | -1.811038708 | 0.001206 | 0.052291 |
| 20537 Slc5a1 | solute carrier family 5 (sodium/glucose cotransporter), member 1 | 80.99785 | 129.1287112 | 32.86703944 | 0.2587261 | -1.950502517 | 0.000555 | 0.031041 |
| 12825 Col3a1 | collagen, type III, alpha 1 | 92.837162 | 148.1922189 | 37.48210506 | 0.25726839 | -1.958653893 | 0.000576 | 0.03214 |
| 624582 Morf4l1-ps | mortality factor 4 like 1, pseudogene 1 | 142.64905 | 230.805587 | 54.49250798 | 0.23761645 | -2.07329338 | 4.22E-11 | 1.54E-08 |
| 68187 Fam135a | family with sequence similarity 135, member A | 41.896725 | 70.04609669 | 13.3747352 | 0.20041819 | -2.318914628 | 0.000319 | 0.019831 |
| 14115 Fbln2 | fibulin 2 | 30.786097 | 52.29186061 | 9.280334159 | 0.18400819 | -2.442158135 | 0.001724 | 0.067147 |
| 270192 Rab6b | RAB6B, member RAS oncogene family | 428.97647 | 755.9645494 | 101.9883942 | 0.1349743 | -2.889243326 | 4.57E-58 | 1.11E-54 |
| 19737 Rgs5 | regulator of G-protein signaling 5 | 17.301375 | 31.72429002 | 2.87846092 | 0.09649406 | -3.373416115 | 0.001922 | 0.07236 |
| 22411 Wnt11 | wingless-type MMTV integration site family, member 11 | 17.334152 | 32.1123183 | 2.5559852 | 0.08368374 | -3.578908899 | 0.001562 | 0.063029 |
| 72701 Zfp618 | zinc finger protein 618 | 10.05662 | 18.77313403 | 1.340105712 | 0.07339667 | -3.768141642 | 0.001722 | 0.067147 |
| 19225 Ptgs2 | prostaglandin endoperoxide synthase 2 | 15.193071 | 29.49273895 | 0.893403808 | 0.0334982 | -4.899772725 | 0.001517 | 0.06167 |
| 13593 Ebf3 | early B cell factor 3 | 14.878155 | 28.86290519 | 0.893403808 | 0.03323285 | -4.91124639 | 5.29E-05 | 0.004307 |
| 238011 Enpp7 | ectonucleotidyl pyrophosphatase/phosphodiesterase 7 | 9.4088724 | 18.43315608 | 0.384588802 | 0.02903245 | -5.106189884 | 0.001273 | 0.054201 |
| 76293 Mfap4 | microfibrillar-associated protein 4 | 6.2818228 | 12.56364566 | 0 | 0.00968167 | -6.690528315 | 0.002741 | 0.09063 |
| 73748 Gad1 | glutamate decarboxylase-like 1 | 122.6227 | 243.4585999 | 1.786807616 | 0.0076337 | -7.033401701 | 4.31E-06 | 0.00046 |
| 22290 Uty | ubiquitously transcribed tetratricopeptide repeat gene, Y chromosome | 387.86642 | 773.425304 | 2.307532812 | 0.00337106 | -8.212582675 | 2.12E-132 | 7.76E-129 |
| 26900 Ddx3y | DEAD (Asp-Glu-Ala-Asp) box polypeptide 3, Y-linked | 1304.111 | 2604.20161 | 4.020317136 | 0.00148318 | -9.397089042 | 0 | 0 |
| 20592 Kdm5d | lysine (K)-specific demethylase 5D | 721.12312 | 1440.521536 | 1.724694514 | 0.00123664 | -9.659361055 | 6.42E-243 | 4.69E-239 |
| 26908 Eif2s3y | eukaryotic translation initiation factor 2, subunit 3, structural gene | 607.85827 | 1214.376432 | 1.340105712 | 0.00112201 | -9.799695149 | 3.79E-219 | 1.85E-215 |

Supplemental Table 2 Cytokine-cytokine receptor interaction pathway is upregulated in heterozygous *Cdc42* knockout Treg cells

| Gene Set Name | Size | ES | NES | NOM p-value | FDR q-value | FWER p-value | Rank at Max | Leading Edge |
|---|--------|-------|-------|-------------|-------------|--------------|-------------|---|
| KEGG_CYTOKINE_CYTOKINE_RECECTOR_INTERACTION | 17.000 | 0.501 | 1.192 | | 0.261 | 0.237 | 0.451 | 186.000 tags=65%, list=41%, signal=105% |

Supplemental Table 3 Ribosome pathway is downregulated in heterozygous *Cdc42* knockout Treg cells

| Gene Set Name | Size | ES | NES | NOM p-value | FDR q-value | FWER p-value | Rank at Max | Leading Edge |
|---------------|--------|--------|--------|-------------|-------------|--------------|-------------|----------------------------------|
| KEGG_RIBOSOME | 15.000 | -0.720 | -1.945 | 0.000 | 0.000 | 0.000 | 140.000 | tags=100%, list=31%, signal=139% |

Supplemental Table 4 Gene expression changes in homozygous *Cdc42* knockout Treg cells.

| geneid | symbol | name | baseMean | baseMeanGroup1 | baseMeanGroup3 | foldChange | log2FoldChange | pval | padj |
|--------|------------|--|-----------|----------------|----------------|-------------|----------------|----------|----------|
| 12346 | Car1 | carbonic anhydrase 1 | 481.57463 | 0 | 963.1429691 | 7828.015434 | 12.93443089 | 3.27E-20 | 7.97E-18 |
| 27226 | Pla2g7 | phospholipase A2, group VII (platelet-activating factor acetyl esterase) | 340.68513 | 0 | 681.3702587 | 5526.363844 | 12.43211483 | 9.01E-08 | 5.04E-06 |
| 52614 | Adgre4 | adhesion G protein-coupled receptor E4 | 281.98746 | 0 | 563.9749181 | 4574.295161 | 12.15933374 | 1.27E-07 | 6.89E-06 |
| 73149 | Clec4a3 | C-type lectin domain family 4, member a3 | 168.92938 | 0 | 337.8587694 | 2740.517361 | 11.42023256 | 4.30E-07 | 2.06E-05 |
| 17231 | Mcpt8 | mast cell protease 8 | 92.968151 | 0 | 185.9363023 | 1509.280362 | 10.55964511 | 1.15E-07 | 6.34E-06 |
| 328780 | Prss34 | protease, serine 34 | 92.304347 | 0 | 184.6086943 | 1497.696717 | 10.54852979 | 2.48E-06 | 9.72E-05 |
| 18670 | Abcb4 | ATP-binding cassette, sub-family B (MDR/TAP), member 4 | 90.777048 | 0 | 181.5540957 | 1476.900886 | 10.5283573 | 3.76E-10 | 3.23E-08 |
| 74116 | Pi16 | peptidase inhibitor 16 | 71.575069 | 0 | 143.1501381 | 1161.363108 | 10.1816034 | 1.20E-05 | 0.000392 |
| 140497 | Cd300c2 | CD300C molecule 2 | 68.304807 | 0 | 136.6096141 | 1108.441251 | 10.11431659 | 5.89E-06 | 0.000209 |
| 14582 | Gf1b | growth factor independent 1B | 63.315891 | 0 | 126.6317824 | 1029.237612 | 10.00736037 | 7.18E-08 | 4.10E-06 |
| 20739 | Sptn1 | spectrin alpha, erythrocytic 1 | 53.146705 | 0 | 106.2934099 | 865.6817914 | 9.757693004 | 1.92E-08 | 1.25E-06 |
| 666907 | Ms4a4a | membrane-spanning 4-domains, subfamily A, member 4A | 47.612133 | 0 | 95.2242651 | 774.8122123 | 9.597702883 | 1.75E-07 | 9.19E-06 |
| 19074 | Prg2 | proteoglycan 2, bone marrow | 46.219374 | 0 | 92.43874722 | 750.0369367 | 9.550817835 | 0.000129 | 0.002906 |
| 69189 | Mcmep1 | mast cell expressed membrane protein 1 | 43.661814 | 0 | 87.32362775 | 708.563958 | 9.468754273 | 0.000433 | 0.007751 |
| 1E+08 | F630028O1 | RIKEN cDNA F630028O1 gene | 30.177566 | 0 | 60.3551312 | 491.152384 | 8.940026893 | 5.81E-06 | 0.000207 |
| 12273 | C5ar1 | complement component 5a receptor 1 | 28.446757 | 0 | 56.89351463 | 461.962135 | 8.851630795 | 0.000119 | 0.0027 |
| 320129 | Grk3 | G protein-coupled receptor kinase 3 | 310.98881 | 1.019594055 | 620.9580328 | 460.7582079 | 8.847866253 | 4.05E-07 | 1.96E-05 |
| 243197 | Mfsd7a | major facilitator superfamily domain containing 7A | 27.265704 | 0 | 54.53140769 | 443.3906118 | 8.792434413 | 2.52E-05 | 0.000736 |
| 353346 | Gpr141 | G protein-coupled receptor 141 | 193.37464 | 0.67972937 | 386.0695551 | 398.1491301 | 8.637165095 | 1.29E-08 | 8.60E-07 |
| 433638 | I830077J02 | RIKEN cDNA I830077J02 gene | 21.35238 | 0 | 42.70476056 | 346.7620101 | 8.437802041 | 0.001017 | 0.01571 |
| 16177 | Il1r1 | interleukin 1 receptor, type I | 20.484927 | 0 | 40.96985404 | 332.6968598 | 8.378064439 | 0.001127 | 0.017041 |
| 72433 | Rab38 | RAB38, member RAS oncogene family | 20.484927 | 0 | 40.96985404 | 332.6968502 | 8.378064202 | 0.001126 | 0.017041 |
| 243529 | H1fx | H1 histone family, member X | 19.992127 | 0 | 39.98425337 | 325.6244331 | 8.347065146 | 7.00E-05 | 0.001759 |
| 11979 | Atp7b | ATPase, Cu++ transporting, beta polypeptide | 18.949572 | 0 | 37.89914307 | 307.9177016 | 8.266400997 | 0.000602 | 0.010151 |
| 14255 | Flt3 | FMS-like tyrosine kinase 3 | 18.501571 | 0 | 37.00314246 | 301.5903098 | 8.236446265 | 8.43E-05 | 0.002043 |
| 14125 | Fcer1a | Fc receptor, IgE, high affinity I, alpha polypeptide | 15.90331 | 0 | 31.806161938 | 258.4186376 | 8.01566313 | 0.005216 | 0.057942 |
| 257635 | Sds1 | serine dehydratase-like | 15.166158 | 0 | 30.33231659 | 247.2632364 | 7.949903943 | 0.000289 | 0.005605 |
| 19743 | Rhag | Rhesus blood group-associated A glycoprotein | 68.951147 | 0.339864685 | 137.562429 | 245.3676772 | 7.938801402 | 1.79E-08 | 1.17E-06 |
| 17349 | Mlf1 | myeloid leukemia factor 1 | 14.84846 | 0 | 29.69691791 | 244.6256791 | 7.934432045 | 6.92E-05 | 0.001747 |
| 12262 | C1qc | complement component 1, q subcomponent, C chain | 14.991056 | 0 | 29.9821128 | 243.6393364 | 7.92860327 | 0.002881 | 0.035998 |
| 30963 | Hacd1 | 3-hydroxyacyl-CoA dehydratase 1 | 14.677456 | 0 | 29.35491238 | 239.1450666 | 7.90174222 | 0.000475 | 0.008346 |
| 22480 | Trem1 | triggering receptor expressed on myeloid cells-like 4 | 144.92167 | 1.27055649 | 288.5727831 | 230.5686746 | 7.849052709 | 0.000453 | 0.008049 |
| 442827 | Rab44 | RAB44, member RAS oncogene family | 111.61004 | 0.67972937 | 222.5403427 | 288.8535544 | 7.838280889 | 4.27E-08 | 2.55E-06 |
| 75552 | Paq9 | progesterin and adipioQ receptor family member IX | 13.785554 | 0 | 27.57110761 | 225.5076206 | 7.817032377 | 0.000237 | 0.004724 |
| 57255 | Cldn13 | claudin 13 | 13.500501 | 0 | 27.00100189 | 219.5407209 | 7.778344749 | 0.002613 | 0.03351 |
| 67434 | Ankrd33b | ankyrin repeat domain 33B | 13.231701 | 0 | 26.46340152 | 215.7387272 | 7.753141367 | 0.000717 | 0.01168 |
| 17105 | Lyz2 | lysosome 2 | 1711.4498 | 15.92650817 | 3406.973119 | 213.3365707 | 7.736987487 | 1.35E-06 | 5.69E-05 |
| 17079 | Cd180 | CD180 antigen | 90.555003 | 0.67972937 | 180.4302772 | 192.8663018 | 7.591457283 | 0.000277 | 0.005421 |
| 12978 | Csf1r | colony stimulating factor 1 receptor | 770.77543 | 8.007701005 | 1533.543167 | 192.4034222 | 7.587990649 | 3.89E-07 | 1.90E-05 |
| 16633 | Klr2 | killer cell lectin-like receptor, subfamily A, member 2 | 127.31272 | 1.019594055 | 253.6058527 | 179.7911757 | 7.568269106 | 2.81E-05 | 0.000806 |
| 72925 | 1-Mar | membrane-associated ring finger (C3HC4) 1 | 90.286203 | 0.67972937 | 179.8926768 | 188.1073981 | 7.55541278 | 7.71E-06 | 0.00267 |
| 23237 | C1rl | complement component 1, r subcomponent-like | 11.362394 | 0 | 22.72478832 | 185.8184583 | 7.537750009 | 0.000679 | 0.011182 |
| 21928 | Tnfaf2p | tumor necrosis factor, alpha-induced protein 2 | 260.63083 | 3.17641225 | 518.0852571 | 176.251515 | 7.461505272 | 4.28E-08 | 2.55E-06 |
| 56644 | Clec7a | C-type lectin domain family 7, member a | 129.59444 | 1.31501182 | 257.8738698 | 173.7319369 | 7.440719177 | 6.31E-06 | 0.000223 |
| 16168 | Il15 | interleukin 15 | 10.584541 | 0 | 21.16908193 | 172.9857986 | 7.434509794 | 0.001023 | 0.015774 |
| 17167 | Marco | macrophage receptor with collagenous structure | 46.723257 | 0.339864685 | 93.10664945 | 171.5170218 | 7.42220795 | 0.00105 | 0.016109 |
| 15162 | Hck | hemopoietic cell kinase | 146.96573 | 1.359458739 | 292.572 | 169.3073663 | 7.403500934 | 9.82E-06 | 0.00033 |
| 217154 | Stac2 | SH3 and cysteine rich domain 2 | 10.230239 | 0 | 20.46047789 | 166.6930575 | 7.381050209 | 0.002683 | 0.034256 |
| 104759 | Pld4 | phospholipase D family, member 4 | 281.38349 | 3.516276935 | 559.2507042 | 163.7309718 | 7.355183441 | 1.12E-06 | 4.84E-05 |
| 74760 | Rab311 | RAB3A interacting protein (rabin3)-like 1 | 9.4279366 | 0 | 18.85587325 | 154.2791074 | 7.269398894 | 0.00148 | 0.021189 |
| 381126 | Garem1 | GRB2 associated regulator of MAPK1 subtype 1 | 9.2283856 | 0 | 18.45677112 | 150.8033141 | 7.236524324 | 0.002086 | 0.027859 |
| 70536 | Qcpt | glutaminyl-peptide cyclotransferase (glutaminyl cyclase) | 9.0288346 | 0 | 18.05766915 | 147.3398439 | 7.20303809 | 0.002851 | 0.035835 |
| 19337 | Rab33a | RAB33A, member RAS oncogene family | 8.8048344 | 0 | 17.60968884 | 144.3402513 | 7.173329862 | 0.001568 | 0.022192 |
| 12777 | Ccr10 | chemokine (C-C motif) receptor 10 | 43.401013 | 0.63528245 | 86.16674293 | 142.844426 | 7.158300931 | 4.00E-08 | 2.41E-06 |
| 12291 | Ccna1g | calcium channel, voltage-dependent, T type, alpha 1G subunit | 8.6948835 | 0 | 17.38976692 | 142.0498979 | 7.150253984 | 0.002791 | 0.035378 |
| 18783 | Pla2g4a | phospholipase A2, group IV (cytosolic, calcium-dependent) | 38.826578 | 0.339864685 | 77.31329072 | 141.0067188 | 7.139620097 | 0.000348 | 0.006439 |
| 17474 | Clec4d | C-type lectin domain family 4, member d | 8.2957814 | 0 | 16.59156282 | 135.1696963 | 7.078622794 | 0.006995 | 0.072493 |
| 270160 | Rab39 | RAB39, member RAS oncogene family | 8.0717813 | 0 | 16.14356252 | 132.0982752 | 7.045467819 | 0.002918 | 0.036433 |
| 66107 | Wfdc21 | WAP four-disulfide core domain 21 | 7.8274302 | 0 | 15.65486041 | 128.0210281 | 7.000237597 | 0.00367 | 0.043892 |
| 72361 | Ces2g | carboxylesterase 2G | 119.7498 | 1.654876505 | 237.8447188 | 125.0691144 | 6.966581753 | 3.15E-11 | 3.00E-09 |
| 12364 | Casp12 | caspase 12 | 7.6278792 | 0 | 15.25557836 | 124.5532032 | 6.960618315 | 0.005493 | 0.060426 |
| 72754 | Arhgef10l | Rho guanine nucleotide exchange factor (GEF) 10-like | 108.97289 | 1.359458739 | 216.5863173 | 123.9871564 | 6.954046872 | 3.36E-06 | 0.000128 |
| 246256 | Fgr4 | Fc receptor, IgG, low affinity IV | 240.49994 | 3.90058854 | 477.0992907 | 117.8067166 | 6.880277985 | 0.00035 | 0.006465 |
| 94226 | S1pr5 | sphingosine-1-phosphate receptor 5 | 56.321126 | 0.67972937 | 111.9625227 | 116.5431653 | 6.86472059 | 1.31E-05 | 0.000421 |
| 16641 | Klrc1 | killer cell lectin-like receptor subfamily C, member 1 | 7.094377 | 0 | 14.18875408 | 115.8063124 | 6.855570084 | 0.007833 | 0.078965 |
| 269799 | Clec4a1 | C-type lectin domain family 4, member a1 | 142.32487 | 2.039188109 | 282.6105613 | 115.6795125 | 6.853989567 | 0.000155 | 0.003391 |
| 13051 | Cx3cr1 | chemokine (C-X3-C motif) receptor 1 | 116.47673 | 1.95029427 | 231.0031698 | 113.1943656 | 6.822658338 | 7.29E-06 | 0.000254 |
| 20519 | Slc22a3 | solute carrier family 22 (organic cation transporter), member | 35.345624 | 0.63528245 | 70.05596624 | 111.715158 | 6.803681424 | 3.65E-05 | 0.001018 |
| 14058 | F10 | coagulation factor X | 126.93284 | 1.994741189 | 251.8709462 | 111.0992201 | 6.795704879 | 5.12E-05 | 0.001357 |
| 211228 | Lrrc25 | leucine rich repeat containing 25 | 52.008309 | 0.67972937 | 103.3368884 | 109.0819172 | 6.769268151 | 0.00017 | 0.003629 |
| 17474 | Mpeg1 | macrophage expressed gene 1 | 119.4928 | 21.58657773 | 237.726936 | 107.0663131 | 6.742360818 | 5.11E-09 | 3.68E-07 |
| 105653 | Phyhip | phytanoyl-CoA hydroxylase interacting protein | 6.5160749 | 0 | 13.03214974 | 106.4432153 | 6.733940185 | 0.009166 | 0.088261 |
| 547109 | Trim43a | tripartite motif-containing 43A | 6.3368747 | 0 | 12.67374949 | 104.0689728 | 6.701396197 | 0.005628 | 0.061586 |
| 233038 | Nccrp1 | non-specific cytotoxic cell receptor protein 1 homolog (zebra | 6.1128746 | 0 | 12.22574919 | 101.2397779 | 6.661632437 | 0.004934 | 0.055528 |
| 110958 | M1ap | meiosis 1 associated protein | 6.1821238 | 0 | 12.36424751 | 101.1608978 | 6.660507936 | 0.009248 | 0.088705 |
| 104886 | Rab15 | RAB15, member RAS oncogene family | 5.9988254 | 0 | 11.9976508 | 100.7560181 | 6.654722203 | 0.00933 | 0.089073 |
| 11690 | Alox5ap | arachidonate 5-lipoxygenase activating protein | 219.84021 | 4.44697175 | 435.233436 | 100.5574743 | 6.651876508 | 7.23E-05 | 0.001802 |
| 11689 | Alox5 | arachidonate 5-lipoxygenase | 48.159745 | 0.67972937 | 95.63976006 | 100.41302 | 6.649802538 | 9.47E-05 | 0.002243 |
| 14311 | Cidec | cell death-inducing DFFA-like effector c | 6.0477237 | 0 | 12.09544732 | 99.4051286 | 6.635248381 | 0.006424 | 0.068252 |
| 319772 | C130050O | RIKEN cDNA C130050O1 gene | 31.90026 | 0.63528245 | 63.16523845 | 99.26940984 | 6.63327731 | 0.000233 | 0.004669 |

| | | | | | | | | |
|------------------|---|-----------|-------------|-------------|--------------|-------------|----------|----------|
| 99887 Tmem56 | transmembrane protein 56 | 30.764007 | 0.63528245 | 60.89273157 | 96.97331845 | 6.599515949 | 7.13E-05 | 0.001787 |
| 244853 Nxe4 | neurexophilin and PC-esterase domain family, member 4 | 79.295461 | 1.610429585 | 156.9804919 | 96.62443699 | 6.594316198 | 1.77E-05 | 0.000542 |
| 104086 Cyp27a1 | cytochrome P450, family 27, subfamily a, polypeptide 1 | 26.478583 | 0.339864685 | 52.61730106 | 94.90821045 | 6.568460994 | 8.22E-05 | 0.001998 |
| 21349 Tal1 | T cell acute lymphocytic leukemia 1 | 82.346539 | 1.359458739 | 163.3336194 | 92.92747549 | 6.53803331 | 2.69E-06 | 0.000105 |
| 1E+08 Wfdc17 | WAP four-disulfide core domain 17 | 30.344554 | 0.63528245 | 60.05382567 | 92.59165753 | 6.532810308 | 0.001253 | 0.018543 |
| 319183 Hist1h2bj | histone cluster 1, H2bj | 5.5793725 | 0 | 11.15874491 | 92.49802049 | 6.531350586 | 0.006861 | 0.07131 |
| 22177 Tyrobp | TYRO protein tyrosine kinase binding protein | 229.34812 | 4.875735674 | 453.8205091 | 90.93786698 | 6.50680926 | 1.04E-06 | 4.57E-05 |
| 16411 Itgax | integrin alpha X | 53.879784 | 1.2705649 | 106.489003 | 89.70305384 | 6.487085196 | 6.17E-05 | 0.001583 |
| 19277 Ptpro | protein tyrosine phosphatase, receptor type, O | 81.267676 | 1.90584735 | 160.6295051 | 89.26560113 | 6.480032429 | 9.20E-05 | 0.002192 |
| 246707 Emilin2 | elastin microfibril interfacer 2 | 328.13106 | 6.959370703 | 649.3027551 | 87.04663885 | 6.443716687 | 3.41E-09 | 2.55E-07 |
| 14127 Fcer1g | Fc receptor, IgE, high affinity I, gamma polypeptide | 238.18302 | 5.009076434 | 471.3569708 | 86.24172911 | 6.430314199 | 2.51E-05 | 0.000735 |
| 170813 Ms4a3 | membrane-spanning 4-domains, subfamily A, member 3 | 51.012722 | 1.2705649 | 100.7548795 | 83.34687894 | 6.381056271 | 0.000329 | 0.00617 |
| 213742 Xist | inactive X specific transcripts | 5892.3965 | 143.3857056 | 11641.40729 | 81.43805268 | 6.347631159 | 1.61E-14 | 2.28E-12 |
| 54483 Mefv | Mediterranean fever | 54.576952 | 1.019594055 | 108.1343094 | 79.57044149 | 6.314160699 | 2.02E-05 | 0.00061 |
| 11519 Add2 | adducin 2 (beta) | 67.677139 | 1.359458739 | 133.9948194 | 75.00052544 | 6.228828798 | 8.94E-08 | 5.03E-06 |
| 14130 Fcgr2b | Fc receptor, IgG, low affinity IIb | 153.97639 | 3.945035459 | 304.0077416 | 72.50702852 | 6.180048946 | 0.000176 | 0.003731 |
| 18770 Pkrl | pyruvate kinase liver and red blood cell | 59.442847 | 1.90584735 | 116.9798457 | 66.88854211 | 6.063687196 | 2.13E-05 | 0.000638 |
| 19261 Sirpa | signal-regulatory protein alpha | 516.27489 | 15.12914871 | 1017.402634 | 76.72858756 | 6.061400088 | 8.32E-07 | 3.75E-05 |
| 104079 Pik3r6 | phosphoinositide-3-kinase, regulatory subunit 6 | 45.149015 | 1.019594055 | 89.27843618 | 66.66575538 | 6.058873968 | 0.000311 | 0.005892 |
| 20568 Sipi | secretory leukocyte peptidase inhibitor | 163.53091 | 5.12670652 | 321.9351088 | 62.61843846 | 5.968515627 | 0.000503 | 0.008745 |
| 12983 Csf2rb | colony stimulating factor 2 receptor, beta, low-affinity (granu | 328.09366 | 9.678288182 | 646.5090408 | 62.18228763 | 5.958431788 | 1.65E-07 | 8.74E-06 |
| 14939 Gzmb | granzyme B | 1013.7545 | 33.28834335 | 1994.220558 | 60.3613078 | 5.91552159 | 2.45E-58 | 1.79E-54 |
| 67749 Mgarp | mitochondria localized glutamic acid rich protein | 16.2116 | 0.339864685 | 32.08333554 | 59.38027702 | 5.891911919 | 0.000693 | 0.011347 |
| 16596 Klf1 | Kruppel-like factor 1 (erythroid) | 40.6529 | 1.019594055 | 80.28620518 | 59.07214087 | 5.884405994 | 5.19E-05 | 0.001371 |
| 18131 Notch3 | notch 3 | 16.020246 | 0.339864685 | 31.7006264 | 57.47653749 | 5.844901248 | 0.00021 | 0.004274 |
| 20533 Slc4a1 | solute carrier family 4 (anion exchanger), member 1 | 176.01448 | 5.895329729 | 346.133639 | 56.77057226 | 5.827071506 | 5.30E-12 | 5.53E-10 |
| 232413 Clec12a | C-type lectin domain family 12, member a | 132.37291 | 4.786841835 | 259.9589851 | 50.60691197 | 5.797192317 | 8.12E-05 | 0.001981 |
| 16854 Lgals3 | lectin, galactose binding, soluble 3 | 516.79449 | 19.11863109 | 1014.470346 | 53.8045452 | 5.749656146 | 1.38E-21 | 3.73E-19 |
| 13733 Adgre1 | adhesion G protein-coupled receptor E1 | 125.8861 | 4.53587099 | 247.2363323 | 53.69744958 | 5.746781662 | 1.73E-05 | 0.000534 |
| 66011 Ranbp17 | RAN binding protein 17 | 14.774041 | 0.339864685 | 29.2082176 | 53.13850382 | 5.731685702 | 0.000336 | 0.006254 |
| 27007 Kirk1 | killer cell lectin-like receptor subfamily K, member 1 | 16.575253 | 0.63528245 | 32.51522341 | 50.94189399 | 5.670780694 | 0.002046 | 0.027449 |
| 279572 Tir13 | toll-like receptor 13 | 128.40735 | 5.0822596 | 251.7324478 | 50.78520064 | 5.666336236 | 0.000333 | 0.006208 |
| 18022 Nfe2 | nuclear factor, erythroid derived 2 | 72.641632 | 2.630023369 | 142.6532395 | 50.2384669 | 5.650720534 | 2.16E-05 | 0.000644 |
| 217304 Cd300lb | CD300 molecule like family member B | 48.069016 | 1.654876505 | 94.48315572 | 50.22814529 | 5.650420498 | 0.000306 | 0.005832 |
| 213391 Rassf4 | Ras association (RalGDS/AF-6) domain family member 4 | 271.79241 | 10.43120072 | 533.1536189 | 49.99788959 | 5.643795295 | 4.78E-08 | 2.80E-06 |
| 170744 Tlr8 | toll-like receptor 8 | 88.888904 | 3.309753009 | 174.4680554 | 48.47675997 | 5.599221372 | 0.000582 | 0.009888 |
| 328967 Arhgef37 | Rho guanine nucleotide exchange factor (GEF) 37 | 58.849811 | 2.039188109 | 115.6604341 | 47.960953547 | 5.583787893 | 0.004434 | 0.051077 |
| 211550 Tifa | TRAF-interacting protein with forkhead-associated domain | 69.579835 | 2.379052794 | 136.7806178 | 47.69026499 | 5.575622894 | 7.55E-05 | 0.001868 |
| 234779 Plcg2 | phospholipase C, gamma 2 | 237.95136 | 9.913548355 | 465.9891635 | 47.66552975 | 5.574874425 | 3.88E-06 | 0.000146 |
| 16909 Lmo2 | LIM domain only 2 | 101.43711 | 3.694064614 | 199.1801575 | 47.2981816 | 5.563712822 | 2.18E-06 | 8.64E-05 |
| 14747 Cmkrl1 | chemokine-like receptor 1 | 50.734301 | 1.699323424 | 99.76927886 | 46.91705813 | 5.552040649 | 4.96E-05 | 0.001319 |
| 12655 Chil3 | chitinase-like 3 | 864.01617 | 35.72486863 | 1692.307463 | 46.57196242 | 5.54138977 | 2.58E-05 | 0.000748 |
| 23925 Kel | Kell blood group | 40.888279 | 1.90584735 | 79.87071022 | 46.49700224 | 5.539065801 | 2.65E-05 | 0.000768 |
| 21426 Tfec | transcription factor EC | 24.751816 | 0.975147135 | 48.52848406 | 45.41758882 | 5.505179212 | 0.000674 | 0.011121 |
| 66857 Plbd1 | phospholipase B domain containing 1 | 143.73088 | 6.146300574 | 281.3154586 | 45.11633757 | 5.495578053 | 7.78E-05 | 0.001908 |
| 69539 Trnp1 | TMF1-regulated nuclear protein 1 | 51.867626 | 2.5411298 | 101.1941224 | 44.87234021 | 5.487754521 | 7.21E-06 | 0.000252 |
| 11733 Ank1 | ankyrin 1, erythroid | 73.911074 | 2.96988324 | 144.8522588 | 44.75689896 | 5.484038176 | 2.90E-07 | 1.44E-05 |
| 23078 Themis2 | thymocyte selection associated family member 2 | 162.37054 | 6.870476864 | 317.8706007 | 44.63566511 | 5.480125018 | 4.03E-06 | 0.00015 |
| 30943 Prss30 | protease, serine 30 | 12.39978 | 0.339864685 | 24.45969483 | 44.50622989 | 5.475935391 | 0.002104 | 0.028016 |
| 72324 Plxdc1 | plexin domain containing 1 | 109.43593 | 4.078376218 | 214.7934746 | 44.20886936 | 5.466263933 | 1.66E-09 | 1.29E-07 |
| 14945 Gzmk | granzyme K | 21.174996 | 0.67972937 | 41.67026162 | 43.23625656 | 5.434169713 | 0.00011 | 0.002541 |
| 213002 Ifitm6 | Interferon induced transmembrane protein 6 | 70.538339 | 3.22085917 | 137.8558185 | 42.49111002 | 5.409089127 | 0.000718 | 0.011686 |
| 66468 Ska1 | spindle and kinetochore associated complex subunit 1 | 91.572766 | 4.49142407 | 178.6541079 | 42.45322637 | 5.407802295 | 1.27E-08 | 8.48E-07 |
| 74127 Krt80 | keratin 80 | 65.585012 | 2.925441405 | 128.2445835 | 42.38625804 | 5.405524702 | 0.000187 | 0.003906 |
| 216456 Gls2 | glutaminase 2 (liver, mitochondrial) | 11.662628 | 0.339864685 | 22.9853204 | 42.194594115 | 5.390459312 | 0.001287 | 0.018896 |
| 14938 Gzma | granzyme A | 114.11838 | 5.76198897 | 222.474771 | 41.08335907 | 5.36048224 | 2.78E-08 | 1.75E-06 |
| 16409 Itgam | integrin alpha M | 410.96827 | 19.0010101 | 802.9355395 | 41.02452853 | 5.358416748 | 2.54E-08 | 1.61E-06 |
| 69784 1500009L1 | RIKEN cDNA 1500009L1 gene | 104.16211 | 5.422124285 | 202.9020973 | 40.3458938 | 5.334349946 | 1.45E-07 | 7.77E-06 |
| 328563 Apol1b | apolipoprotein L 1b | 27.751052 | 1.019594055 | 54.48250943 | 40.01940427 | 5.322627786 | 0.000124 | 0.002794 |
| 16858 Lgals7 | lectin, galactose binding, soluble 7 | 35.390014 | 1.359458739 | 69.42056935 | 39.35499948 | 5.298475016 | 2.85E-05 | 0.000813 |
| 69288 Rhobtb1 | Rho-related BTB domain containing 1 | 10.884775 | 0.339864685 | 21.42968565 | 39.12095866 | 5.289869819 | 0.001712 | 0.023816 |
| 12266 C3 | complement component 3 | 648.04784 | 32.25303862 | 1263.846285 | 36.46198799 | 5.265361428 | 8.63E-05 | 0.002084 |
| 212937 Tifab | TRAF-interacting protein with forkhead-associated domain, f | 186.57587 | 9.367159744 | 363.7845706 | 38.43709368 | 5.264427349 | 3.70E-05 | 0.001029 |
| 218624 Il13ra | interleukin 13 receptor A | 18.792538 | 0.67972937 | 36.90534594 | 38.30869054 | 5.259599807 | 9.85E-05 | 0.00232 |
| 225997 Trpm6 | transient receptor potential cation channel, subfamily M, me | 123.86331 | 5.939776649 | 241.786814 | 32.25672731 | 5.257641558 | 1.07E-09 | 8.64E-08 |
| 57248 Ly6i | lymphocyte antigen 6 complex, locus I | 54.503277 | 2.379052794 | 106.6275013 | 37.78833458 | 5.239869032 | 0.001264 | 0.018648 |
| 20288 Mrs1 | macrophage scavenger receptor 1 | 23.209418 | 1.2705649 | 45.1482711 | 37.39411739 | 5.224739427 | 0.002995 | 0.037135 |
| 171285 Havcr2 | hepatitis A virus cellular receptor 2 | 247.88277 | 13.9762139 | 481.7893163 | 36.23219921 | 5.179200472 | 2.01E-08 | 1.30E-06 |
| 108961 Ezf8 | E2F transcription factor 8 | 386.3415 | 19.31212944 | 53.73078736 | 36.23213864 | 5.17919806 | 8.55E-24 | 2.97E-21 |
| 71934 Car13 | carbonic anhydrase 13 | 10.02142 | 0.339864685 | 19.7029756 | 35.9843386 | 5.169297046 | 0.006403 | 0.068172 |
| 231507 Plac8 | placenta-specific 8 | 1060.6038 | 56.42519306 | 2064.782399 | 35.85729492 | 5.16419475 | 2.92E-07 | 1.45E-05 |
| 16541 Napsa | napsin A aspartic peptidase | 236.22795 | 12.63246583 | 459.8234327 | 35.83186118 | 5.163171077 | 2.02E-05 | 0.000611 |
| 14962 Cfb | complement factor B | 223.47459 | 12.0416303 | 434.9075411 | 35.32973591 | 5.14281106 | 6.56E-06 | 0.000231 |
| 20541 Slc8a1 | solute carrier family 8 (sodium/calcium exchanger), member | 92.789997 | 4.669211749 | 180.9107829 | 35.32938179 | 5.142796599 | 7.22E-05 | 0.001802 |
| 218581 Depdc1b | DEP domain containing 1B | 130.68762 | 6.914923784 | 254.46031 | 35.05825871 | 5.131682436 | 1.11E-11 | 1.12E-09 |
| 20698 Sphk1 | sphingosine kinase 1 | 31.41964 | 1.90584735 | 60.93343337 | 34.56772134 | 5.113153601 | 0.000523 | 0.009018 |
| 14289 Fpr2 | formyl peptide receptor 2 | 74.311778 | 3.738511533 | 144.8850446 | 34.07761564 | 5.090752491 | 0.00245 | 0.031783 |
| 78733 Troap | trophobrin associated protein | 121.87501 | 6.117564327 | 237.6324524 | 33.71304107 | 5.075234866 | 2.53E-08 | 1.61E-06 |
| 12768 Ccr1 | chemokine (C-C motif) receptor 1 | 48.830206 | 2.379052794 | 95.28135981 | 33.53418162 | 5.067560489 | 0.000773 | 0.01245 |
| 19824 Trim10 | tripartite motif-containing 10 | 9.1539669 | 0.339864685 | 17.96806909 | 32.84460218 | 5.037584386 | 0.008458 | 0.083424 |
| 224912 Crb3 | crumbs family member 3 | 9.1295178 | 0.339864685 | 17.91917083 | 32.74573032 | 5.033234902 | 0.004505 | 0.051659 |

| | | | | | | | | |
|-------------------|---|-----------|--------------|--------------|--------------|-------------|----------|----------|
| 23845 Clec5a | C-type lectin domain family 5, member a | 37.376693 | 2.245712035 | 72.50767324 | 32.46639089 | 5.020875112 | 0.002309 | 0.030139 |
| 381293 Kif14 | kinesin family member 14 | 347.00769 | 19.65199413 | 674.3633781 | 31.83013928 | 4.992321565 | 7.94E-24 | 2.83E-21 |
| 14389 Gab2 | growth factor receptor bound protein 2-associated protein 2 | 83.804386 | 5.17115344 | 162.4376187 | 31.43152399 | 4.974140319 | 1.68E-05 | 0.000525 |
| 240025 Dact2 | dishevelled-binding antagonist of beta-catenin 2 | 15.302374 | 0.67972937 | 29.92501809 | 31.21467382 | 4.964152485 | 0.000413 | 0.007446 |
| 66141 Ifitm3 | interferon induced transmembrane protein 3 | 295.32975 | 17.15531125 | 573.5041885 | 31.1279496 | 4.960138645 | 9.82E-08 | 5.44E-06 |
| 70218 Kif18b | kinesin family member 18B | 304.92275 | 18.20364155 | 591.6418589 | 30.73420428 | 4.941173228 | 3.00E-24 | 1.15E-21 |
| 18125 Nos1 | nitric oxide synthase 1, neuronal | 38.066678 | 2.290158955 | 73.84319722 | 30.72036861 | 4.941123622 | 4.65E-06 | 0.000169 |
| 30805 Slc22a4 | solute carrier family 22 (organic cation transporter), member | 14.972521 | 0.67972937 | 29.26531231 | 30.70419764 | 4.940363998 | 0.001465 | 0.021041 |
| 18173 Slc11a1 | solute carrier family 11 (proton-coupled divalent metal ion tr | 103.03616 | 6.028670488 | 200.0436527 | 30.4802626 | 4.929803427 | 0.00046 | 0.008138 |
| 11668 Aldh1a1 | aldehyde dehydrogenase family 1, subfamily A1 | 50.287045 | 2.718917479 | 97.85517222 | 30.21537278 | 4.917210836 | 0.000315 | 0.005955 |
| 234797 6430548M08 | RIKEN cDNA 6430548M08 gene | 112.49036 | 6.708399858 | 218.2723256 | 29.74552816 | 4.89460089 | 7.01E-05 | 0.001759 |
| 232984 B3gnt8 | UDP-GlcNAc:betaGal beta-1,3-N-acetylglycosaminyltransfera | 14.45937 | 0.67972937 | 28.23900984 | 29.54933911 | 4.885053959 | 0.00096 | 0.014955 |
| 210029 Metrnl | meteorin, glial cell differentiation regulator-like | 54.085639 | 3.058782164 | 105.1124967 | 29.46604176 | 4.880981368 | 0.000991 | 0.015397 |
| 80752 Fam20c | family with sequence similarity 20, member C | 14.129517 | 0.67972937 | 27.57930406 | 29.37448337 | 4.876491573 | 0.007264 | 0.074515 |
| 245195 Retnlg | resistin like gamma | 48.576587 | 2.718917479 | 94.43425746 | 29.35776532 | 4.875670251 | 0.000827 | 0.01315 |
| 20305 Ccl6 | chemokine (C-C motif) ligand 6 | 276.9811 | 17.96569628 | 535.996512 | 29.35013173 | 4.875295074 | 0.003699 | 0.044177 |
| 231805 Pilra | paired immunoglobulin-like type 2 receptor alpha | 79.112169 | 4.713658668 | 153.5106789 | 29.21105293 | 4.868442457 | 0.000467 | 0.008211 |
| 14961 H2-Ab1 | histocompatibility 2, class II antigen A, beta 1 | 140.2825 | 8.909664973 | 271.6553254 | 28.99608945 | 4.85778644 | 4.44E-05 | 0.001196 |
| 1E+08 Ly6c2 | lymphocyte antigen 6 complex, locus C2 | 255.02388 | 17.28596691 | 492.7617866 | 28.85979325 | 4.85098906 | 5.24E-07 | 2.45E-05 |
| 15439 Hp | haptoglobin | 326.39769 | 21.61531397 | 631.1800753 | 28.75581554 | 4.845781849 | 9.25E-05 | 0.002201 |
| 69706 Lrr1 | leucine rich repeat protein 1 | 52.321327 | 3.309753009 | 101.3329012 | 27.97197871 | 4.805901123 | 1.05E-06 | 4.57E-05 |
| 20963 Syk | spleen tyrosine kinase | 498.11595 | 33.93933647 | 962.295679 | 27.38691273 | 4.775414738 | 3.25E-23 | 1.03E-20 |
| 270084 Lpcat2 | lysophosphatidylcholine acyltransferase 2 | 70.556786 | 5.0822596 | 136.0313119 | 27.2221633 | 4.766709815 | 0.003883 | 0.045927 |
| 21810 Tgfb1 | transforming growth factor, beta induced | 495.51174 | 35.07387551 | 955.9496003 | 26.95239892 | 4.752341782 | 0.00044 | 0.007864 |
| 15937 ler3 | immediate early response 3 | 35.620224 | 2.58557672 | 68.6548706 | 26.89444 | 4.749236044 | 2.44E-05 | 0.000721 |
| 74039 Nfam1 | Nf1 activating molecule with ITAM motif 1 | 243.22456 | 17.0625982 | 469.4428641 | 26.7710037 | 4.742599324 | 0.000344 | 0.006386 |
| 235631 Prss50 | protease, serine 50 | 7.3498112 | 0.339864685 | 14.35975774 | 26.43631908 | 4.724449409 | 0.0087 | 0.085181 |
| 20375 Spi1 | spleen focus forming virus (SFFV) proviral integration oncogene | 205.31537 | 15.12914871 | 395.5015899 | 25.8810389 | 4.693823625 | 0.000191 | 0.003965 |
| 232431 Gprc5a | G protein-coupled receptor, family C, group 5, member A | 23.355619 | 1.359458739 | 45.35178011 | 25.87728262 | 4.693614223 | 0.000206 | 0.004225 |
| 12235 Bub1 | BUB1, mitotic checkpoint serine/threonine kinase | 337.3762 | 23.3173225 | 651.4350808 | 25.87198325 | 4.693318732 | 4.54E-11 | 4.31E-09 |
| 106393 Srl | sarcalumenin | 17.834413 | 1.019594055 | 34.64923197 | 25.84488446 | 4.691806848 | 0.002865 | 0.035891 |
| 330119 Adams3 | a disintegrin-like and metallopeptidase (reprolysin type) with angiотensin I converting enzyme (peptidyl-dipeptidase A) 1 | 17.834413 | 1.019594055 | 34.64923197 | 25.84464051 | 4.69179323 | 0.002863 | 0.035891 |
| 11421 Ace | angiotensin I converting enzyme (peptidyl-dipeptidase A) 1 | 627.76322 | 46.45148712 | 1209.074947 | 25.53160598 | 4.674212383 | 0.000158 | 0.004347 |
| 18005 Nek2 | NIMA (never in mitosis gene a)-related expressed kinase 2 | 402.26259 | 29.4479124 | 775.0772754 | 25.08437046 | 4.648716827 | 5.63E-26 | 2.94E-23 |
| 78252 Nxpe2 | neurexophilin and PC-esterase domain family, member 2 | 27.247912 | 1.699323424 | 52.79650118 | 25.01908148 | 4.64495692 | 0.00092 | 0.014431 |
| 239556 Cacna1i | calcium channel, voltage-dependent, alpha 1I subunit | 70.240762 | 5.76198897 | 134.7195359 | 24.75797386 | 4.629821347 | 4.09E-06 | 0.000152 |
| 19746 Rhd | Rh blood group, D antigen | 40.834659 | 2.718917479 | 78.95040072 | 24.43849376 | 4.611083465 | 0.000816 | 0.012999 |
| 19362 Rad51ap1 | RAD51 associated protein 1 | 148.55936 | 10.78677608 | 286.3319401 | 24.07884006 | 4.58969399 | 1.01E-08 | 6.85E-07 |
| 246746 Cd300lf | CD300 molecule like family member F | 68.711222 | 5.260047279 | 132.1623969 | 23.81313331 | 4.574787764 | 0.002094 | 0.027941 |
| 104252 Cdc42ep2 | CDC42 effector protein (Rho GTPase binding) 2 | 22.370455 | 1.90584735 | 42.835062442 | 23.62832264 | 4.562445312 | 0.006755 | 0.070486 |
| 67092 Gatm | glycine amidinotransferase (L-arginine:glycine amidinotransf | 95.465912 | 7.756730159 | 183.1750933 | 23.42444994 | 4.549943269 | 0.000197 | 0.004085 |
| 12428 Ccn2 | cyclin A2 | 1048.53 | 85.66658154 | 2011.393509 | 23.24849959 | 4.539065705 | 1.06E-45 | 5.14E-42 |
| 108927 Lhfp | lipoma HMGIC fusion partner | 75.558685 | 5.939766469 | 145.1775927 | 23.18992272 | 4.535426107 | 8.95E-08 | 5.03E-06 |
| 80719 Igfs6 | immunoglobulin superfamily, member 6 | 169.51959 | 13.28984757 | 325.2093288 | 22.58892972 | 4.497544011 | 4.03E-05 | 0.001108 |
| 73804 Kif2c | kinesin family member 2C | 242.35936 | 19.81407114 | 464.9046444 | 22.45695204 | 4.489090226 | 7.33E-17 | 1.32E-14 |
| 26388 Ifi202b | interferon activated gene 202B | 65.293547 | 5.511018124 | 125.076076 | 22.4394667 | 4.487966484 | 0.000137 | 0.003065 |
| 17523 Mpo | myeloperoxidase | 812.08499 | 68.24458877 | 1555.925387 | 22.3800722 | 4.484142786 | 1.97E-06 | 7.96E-05 |
| 12489 Cd33 | CD33 antigen | 41.802077 | 3.309753009 | 80.29440164 | 22.34240662 | 4.481712689 | 0.006407 | 0.068172 |
| 109700 Itga1 | integrin alpha 1 | 44.300317 | 3.354199929 | 85.24643342 | 22.19834317 | 4.472380096 | 3.00E-05 | 0.00085 |
| 16504 Knc3 | potassium voltage gated channel, Shaw-related subfamily, m | 10.899957 | 0.67972937 | 21.12018367 | 22.19823204 | 4.472372874 | 0.002205 | 0.029047 |
| 74145 F13a1 | coagulation factor XIII, A1 subunit | 276.13055 | 23.28590115 | 528.9752019 | 22.03264889 | 4.461571049 | 3.99E-06 | 0.000149 |
| 18104 Nqo1 | NAD(P)H dehydrogenase, quinone 1 | 24.242352 | 1.699323424 | 46.7853811 | 22.0280045 | 4.461266903 | 0.000561 | 0.009604 |
| 16995 Ltb4r1 | leukotriene B4 receptor 1 | 76.717738 | 6.530612179 | 146.9048637 | 21.89768013 | 4.452706132 | 1.42E-05 | 0.000454 |
| 14281 Fos | FBJ osteosarcoma oncogene | 864.78609 | 74.77520095 | 1654.796982 | 21.89728571 | 4.452680146 | 1.33E-12 | 1.50E-10 |
| 30794 Pdlim4 | PDZ and LIM domain 4 | 100.90431 | 9.071741979 | 192.736869 | 21.554406558 | 4.429910939 | 3.65E-08 | 2.23E-06 |
| 64008 Aqp9 | aquaporin 9 | 35.829491 | 2.718917479 | 68.9400637 | 21.30602099 | 4.413189283 | 0.001014 | 0.015697 |
| 208084 Pif1 | PIF1 5'-to-3' DNA helicase | 204.41802 | 17.77488303 | 391.0611667 | 21.29731261 | 4.412599491 | 6.91E-15 | 1.01E-12 |
| 18793 Plaur | plasminogen activator, urokinase receptor | 76.657699 | 6.826029944 | 146.4893688 | 21.29654288 | 4.412547348 | 3.86E-06 | 0.000145 |
| 73106 Prss57 | protease, serine 57 | 14.763702 | 1.019594055 | 28.50781002 | 21.22574508 | 4.407743292 | 0.003441 | 0.041434 |
| 1.01E+08 Fsbp | fibrinogen silencer binding protein | 10.411254 | 0.67972937 | 20.14277945 | 21.18085442 | 4.404688882 | 0.002856 | 0.035869 |
| 13830 Stom | stomatin | 221.1481 | 19.91599055 | 422.3802059 | 21.17400269 | 4.404222114 | 1.48E-05 | 0.000447 |
| 214359 Tmem51 | transmembrane protein 51 | 44.386255 | 3.90058854 | 84.87192074 | 21.15149201 | 4.402687528 | 0.0014 | 0.020286 |
| 217216 BC030867 | cDNA sequence BC030867 | 71.085651 | 5.733252723 | 136.4380495 | 21.07845132 | 4.397696968 | 2.02E-06 | 8.11E-05 |
| 19152 Prtn3 | proteinase 3 | 159.00307 | 14.242859542 | 303.7632503 | 21.05904567 | 4.396368155 | 5.78E-05 | 0.001494 |
| 14934 Gypa | glycophorin A | 39.263292 | 3.8116947 | 74.71488895 | 20.91579153 | 4.386520691 | 0.000917 | 0.014396 |
| 58223 Mmp19 | matrix metallopeptidase 19 | 19.633695 | 1.90584735 | 37.3615427 | 20.79074966 | 4.377869874 | 0.006699 | 0.07005 |
| 268515 Bahcc1 | BAH domain and coiled-coil containing 1 | 30.735075 | 2.630023639 | 58.84012661 | 20.77909463 | 4.37706089 | 0.000275 | 0.005393 |
| 53321 Cntnap1 | contactin associated protein-like 1 | 75.783064 | 7.121447709 | 144.4446798 | 20.66960107 | 4.369438639 | 3.88E-07 | 1.90E-05 |
| 16590 Kit | kit oncogene | 145.40066 | 12.89914735 | 277.9021793 | 20.48070219 | 4.356193273 | 3.04E-08 | 1.88E-06 |
| 14131 Fcgr3 | Fc receptor, IgG, low affinity III | 122.33093 | 11.4350841 | 233.2267784 | 20.39884593 | 4.350415629 | 0.006068 | 0.065426 |
| 16571 Kif4 | kinesin family member 4 | 488.07112 | 44.34180094 | 931.8124346 | 20.12217151 | 4.330714099 | 1.07E-30 | 1.12E-27 |
| 83382 Siglece | sialid acid binding Ig-like lectin E | 42.861686 | 3.694064614 | 82.02930815 | 19.96715915 | 4.319557181 | 0.009371 | 0.089176 |
| 14538 Gcnt2 | glucosaminyl (N-acetyl) transferase 2, I-branching enzyme | 88.923963 | 8.185488684 | 169.6624379 | 19.95823583 | 4.318912297 | 0.0023 | 0.030085 |
| 140488 Igf2bp3 | insulin-like growth factor 2 mRNA binding protein 3 | 408.05476 | 38.93270223 | 777.1768152 | 19.84153254 | 4.310451557 | 2.00E-19 | 4.58E-17 |
| 226419 Dyrk3 | dual-specificity tyrosine-(Y)-phosphorylation regulated kinase | 18.811042 | 1.90584735 | 35.71623625 | 19.81051134 | 4.308194214 | 0.008877 | 0.086452 |
| 76131 Depdc1a | DEP domain containing 1a | 245.19082 | 23.28590115 | 467.0957477 | 19.62473353 | 4.29460116 | 9.18E-16 | 1.49E-13 |
| 16971 Lrp1 | low density lipoprotein receptor-related protein 1 | 695.58598 | 68.30206126 | 1322.869893 | 19.06632729 | 4.252955062 | 0.000117 | 0.002679 |
| 20877 Aurbk | aurora kinase B | 506.52687 | 49.08419585 | 963.9695382 | 19.04358684 | 4.251233329 | 1.69E-30 | 1.65E-27 |
| 15242 Hhex | hematopoietically expressed homeobox | 39.105666 | 3.398646849 | 74.8126854 | 18.90575391 | 4.240753476 | 0.001488 | 0.021288 |
| 67849 Cdca5 | cell division cycle associated 5 | 207.78312 | 19.90296497 | 395.6632752 | 18.8551964 | 4.236890273 | 3.56E-13 | 4.37E-11 |
| 13421 Dnase1 | | | | | | | | |

| | | | | | | | | |
|------------------|---|-----------|--------------|-------------|-------------|-------------|----------|----------|
| 68793 Ifitm1 | interferon induced transmembrane protein 1 | 70.83513 | 7.121447709 | 134.5488127 | 18.75797943 | 4.229432527 | 0.000176 | 0.00374 |
| 269959 Adamtsl3 | ADAMTS-like 3 | 16.868092 | 1.359458739 | 32.37672509 | 18.72332534 | 4.226764781 | 0.00371 | 0.04426 |
| 72080 Sapcd2 | suppressor APC domain containing 2 | 132.51896 | 13.60761297 | 251.4303009 | 18.68999711 | 4.224194441 | 7.76E-09 | 5.47E-07 |
| 12316 Aspm | asp (abnormal spindle)-like, microcephaly associated (Drosophila) | 757.6204 | 78.26274164 | 1436.978049 | 18.46417974 | 4.206657268 | 6.07E-32 | 7.39E-29 |
| 12349 Car2 | carbonic anhydrase 2 | 414.1833 | 42.3731109 | 785.9934924 | 18.40098192 | 4.201710849 | 5.21E-06 | 0.000188 |
| 26365 Ceacam1 | carcinoembryonic antigen-related cell adhesion molecule 1 | 133.33383 | 13.60761297 | 253.0600558 | 18.29582102 | 4.193442252 | 0.000297 | 0.005702 |
| 224014 Fgd4 | FYVE, RhoGEF and PH domain containing 4 | 98.018636 | 9.840365188 | 186.196906 | 18.23630803 | 4.188741778 | 0.000155 | 0.003391 |
| 54141 Spag5 | sperm associated antigen 5 | 464.20298 | 48.55083282 | 879.8551198 | 18.1402787 | 4.181124716 | 6.20E-27 | 3.62E-24 |
| 14544 Gda | guanine deaminase | 325.02391 | 33.24389643 | 616.8039246 | 18.1025427 | 4.178120449 | 9.90E-05 | 0.002329 |
| 277396 Klhl23 | kelch-like 23 | 30.530355 | 2.969888324 | 58.09082078 | 18.01125733 | 4.170826991 | 0.00164 | 0.023038 |
| 14793 Cdca3 | cell division cycle associated 3 | 359.09274 | 37.32227264 | 680.8632003 | 17.977325 | 4.168106461 | 1.36E-21 | 3.73E-19 |
| 192663 Abcg4 | ATP-binding cassette, sub-family G (WHITE), member 4 | 23.235329 | 2.039188109 | 44.43147061 | 17.89039293 | 4.161113169 | 0.002324 | 0.030308 |
| 17345 Mki67 | antigen identified by monoclonal antibody Ki 67 | 7446.3292 | 779.5717192 | 14113.08669 | 17.82595467 | 4.155907437 | 1.90E-59 | 2.77E-55 |
| 268697 Ccnb1 | cyclin B1 | 576.63788 | 58.98471864 | 1094.291036 | 17.7892677 | 4.152935218 | 1.72E-25 | 8.11E-23 |
| 13003 Vcan | versican | 262.75015 | 27.76161455 | 497.7386882 | 17.72683252 | 4.147826869 | 1.70E-05 | 0.000529 |
| 406217 Bex4 | brain expressed X-linked 4 | 22.329696 | 2.5411298 | 42.11826193 | 17.63399478 | 4.140287433 | 0.005216 | 0.057942 |
| 20679 Sox6 | SRY (sex determining region Y)-box 6 | 22.195296 | 2.5411298 | 41.84946175 | 17.61687812 | 4.138886383 | 0.004199 | 0.048796 |
| 53608 Map3k6 | mitogen-activated protein kinase kinase kinase 6 | 33.056719 | 3.8116947 | 62.30174318 | 17.49844249 | 4.129154611 | 0.001635 | 0.023002 |
| 17096 Lyn | LYN proto-oncogene, Src family tyrosine kinase | 368.86484 | 38.88825531 | 698.8414292 | 17.48643297 | 4.128164121 | 0.000345 | 0.00641 |
| 66442 Spc25 | SPC25, NDC80 kinetochore complex component, homolog (S. pombe) | 145.30731 | 14.56973453 | 276.0448869 | 17.47618189 | 4.127318121 | 1.07E-05 | 0.000354 |
| 76464 Knl1 | kinetochore scaffold 1 | 645.14908 | 69.40020868 | 1220.897948 | 17.1503241 | 4.100163935 | 8.24E-33 | 1.34E-29 |
| 54610 Tbc1d8 | TBC1 domain family, member 8 | 82.28631 | 8.820771134 | 155.636491 | 17.13197273 | 4.098619381 | 0.000236 | 0.00471 |
| 236920 Stard8 | START domain containing 8 | 20.407097 | 1.994741189 | 38.81945257 | 17.06337351 | 4.092830997 | 0.00079 | 0.012689 |
| 11826 Aqp1 | aquaporin 1 | 229.05419 | 25.05840774 | 433.0499682 | 17.05559006 | 4.092172762 | 3.02E-08 | 1.87E-06 |
| 16176 Il1b | interleukin 1 beta | 66.252795 | 7.372418555 | 125.1331708 | 16.90836574 | 4.079665319 | 0.006772 | 0.070534 |
| 52276 Cdca8 | cell division cycle associated 8 | 447.37752 | 47.66726462 | 847.0877696 | 16.87233253 | 4.076587529 | 1.22E-18 | 2.55E-16 |
| 67971 Tppp3 | tubulin polymerization-promoting protein family member 3 | 87.860225 | 9.707024429 | 166.0134247 | 17.69786725 | 4.070275325 | 0.003048 | 0.037705 |
| 330286 D630045J1 | RIKEN cDNA D630045J12 gene | 29.817948 | 3.516276935 | 56.11961943 | 16.78399727 | 4.069014443 | 0.001025 | 0.015792 |
| 17748 Mt1 | metallothionein 1 | 99.486853 | 11.06648317 | 187.9072231 | 16.72731425 | 4.064133918 | 1.22E-05 | 0.000398 |
| 12704 Cit | citron | 391.92266 | 43.73525474 | 740.1100645 | 16.50575758 | 4.044899044 | 2.42E-25 | 1.10E-22 |
| 75317 Parpbp | PARP1 binding protein | 121.23474 | 13.28345896 | 229.1860182 | 16.2967907 | 4.02651598 | 1.91E-08 | 1.25E-06 |
| 13036 Ctsh | cathepsin H | 124.6271 | 14.08081841 | 235.1733904 | 16.18803463 | 4.016855935 | 0.000216 | 0.004389 |
| 14957 Hist1h1d | histone cluster 1, H1d | 15.875449 | 1.654876505 | 30.09602176 | 16.14406655 | 4.012932121 | 0.001185 | 0.017669 |
| 107995 Cdc20 | cell division cycle 20 | 450.91161 | 51.16783088 | 850.6553791 | 16.0570378 | 4.005133864 | 1.55E-23 | 5.03E-21 |
| 14132 Fcgrt | Fc receptor, IgG, alpha chain transporter | 88.541448 | 9.929259028 | 167.1536362 | 15.95214022 | 3.995678091 | 0.000155 | 0.003393 |
| 108000 Cenpf | centromere protein F | 1020.3935 | 118.4686939 | 1922.318031 | 15.94386447 | 3.99492447 | 3.70E-45 | 1.35E-41 |
| 11910 Atf3 | activating transcription factor 3 | 23.629262 | 2.379052794 | 44.87947092 | 15.82787162 | 3.984395364 | 0.006488 | 0.068679 |
| 12854 Cort | cortistatin | 11.00064 | 1.019594055 | 20.98168535 | 15.75085141 | 3.97735791 | 0.005547 | 0.060837 |
| 50765 Tfrr2 | transferrin receptor 2 | 51.918474 | 6.39727142 | 77.43967726 | 15.7137916 | 3.973959427 | 0.000575 | 0.009772 |
| 56702 Hist1h1b | histone cluster 1, H1b | 14.220932 | 1.359458739 | 27.0824055 | 15.71067073 | 3.973672869 | 0.006505 | 0.068758 |
| 545030 Wdfy4 | WD repeat and FYVE domain containing 4 | 120.40611 | 14.03637149 | 226.7758544 | 15.70395847 | 3.970356358 | 0.001103 | 0.01682 |
| 11600 Angpt1 | angiopoietin 1 | 29.685421 | 3.560723855 | 55.80111744 | 15.68030267 | 3.970881502 | 0.000585 | 0.009902 |
| 1E+08 NhsI2 | NHS-like 2 | 243.25879 | 29.50538489 | 457.0122035 | 15.55935826 | 3.959710653 | 7.93E-12 | 8.16E-10 |
| 16551 Kif11 | kinesin family member 11 | 1504.9343 | 179.1944977 | 2830.674156 | 15.54379797 | 3.958267315 | 4.21E-39 | 1.03E-35 |
| 329416 Nostrin | nitric oxide synthase trafficker | 10.915138 | 1.019594055 | 20.81061868 | 15.54297404 | 3.958190675 | 0.007506 | 0.076413 |
| 12534 Cdk1 | cyclin-dependent kinase 1 | 466.17751 | 55.64354428 | 876.7114821 | 15.54061129 | 3.957971348 | 2.84E-24 | 1.12E-21 |
| 14461 Gata2 | GATA binding protein 2 | 84.139384 | 9.840365188 | 158.4384018 | 15.52189015 | 3.956232345 | 0.000282 | 0.005495 |
| 14457 Gas7 | growth arrest specific 7 | 74.63499 | 8.865218053 | 140.4047611 | 15.35208553 | 3.940362749 | 1.12E-06 | 4.84E-05 |
| 109212 Fam64a | family with sequence similarity 64, member A | 110.24238 | 12.89914735 | 207.5856094 | 15.32414764 | 3.937734925 | 1.00E-06 | 4.43E-05 |
| 13035 Ctsg | cathepsin G | 191.47478 | 23.27019048 | 359.6793607 | 15.23763531 | 3.929567127 | 0.000204 | 0.004199 |
| 70466 Ckap2l | cytoskeleton associated protein 2-like | 382.95917 | 46.27638454 | 719.6419511 | 15.22277352 | 3.928159508 | 2.10E-20 | 5.30E-18 |
| 15166 Hcn2 | hyperpolarization-activated, cyclic nucleotide-gated K+ 2 | 13.707781 | 1.359458739 | 26.05610302 | 15.10964994 | 3.917398331 | 0.005701 | 0.062245 |
| 72119 Tpx2 | TPX2, microtubule-associated | 720.58899 | 88.842499379 | 1352.334787 | 15.09576903 | 3.916072349 | 1.02E-32 | 1.49E-29 |
| 56193 Plek | pleckstrin | 314.65178 | 37.92881885 | 591.3747416 | 15.0688859 | 3.913500852 | 9.38E-06 | 0.000317 |
| 229841 Cenpe | centromere protein E | 861.35197 | 107.6662071 | 1615.037742 | 14.90218296 | 3.897452386 | 2.79E-34 | 5.09E-31 |
| 20419 Shcbp1 | Shc SH2-domain binding protein 1 | 224.61295 | 27.40872429 | 421.8171747 | 14.81997515 | 3.889471124 | 6.90E-13 | 8.13E-11 |
| 11799 Bir5c | baculoviral IAP repeat-containing 5 | 459.42584 | 57.22523762 | 861.626447 | 14.69422064 | 3.877176937 | 2.49E-26 | 1.35E-23 |
| 11488 Adam11 | a disintegrin and metalloproteinase domain 11 | 12.611511 | 1.610429585 | 23.61259247 | 14.67678646 | 3.875464214 | 0.007705 | 0.077946 |
| 232670 Tspan33 | tetraspanin 33 | 27.748442 | 3.058782164 | 52.43810094 | 14.63551508 | 3.871401615 | 0.003644 | 0.043663 |
| 16476 Jun | jun proto-oncogene | 817.52585 | 102.8793653 | 1532.172333 | 14.61470975 | 3.869349273 | 5.27E-14 | 7.13E-12 |
| 67121 Mast1 | microtubule associated serine/threonine kinase-like | 165.20644 | 21.36434313 | 309.048532 | 14.60824575 | 3.868711035 | 6.26E-09 | 4.46E-07 |
| 380711 Rap1gap2 | RAP1 GTPase activating protein 2 | 525.20667 | 66.26824335 | 984.1451035 | 14.40619673 | 3.848617606 | 1.27E-24 | 5.31E-22 |
| 12772 Ccr2 | chemokine (C-C motif) receptor 2 | 675.42237 | 85.83134364 | 1265.013403 | 14.29128156 | 3.83706339 | 5.73E-14 | 7.67E-12 |
| 105988 Esp1 | extra spindle pole bodies 1, separase | 537.78313 | 68.48521914 | 1007.081036 | 14.1724165 | 3.825013371 | 4.34E-27 | 2.64E-24 |
| 12442 Ccnb2 | cyclin B2 | 521.62752 | 69.32434042 | 973.9306965 | 14.0545864 | 3.812969093 | 1.11E-24 | 4.79E-22 |
| 15186 Hdc | histidine decarboxylase | 85.68023 | 11.31745401 | 160.0430065 | 13.97877695 | 3.805166235 | 0.001038 | 0.015952 |
| 12532 Cdc25c | cell division cycle 25C | 111.93676 | 14.71610086 | 209.1574282 | 13.96983482 | 3.804243057 | 2.04E-07 | 1.06E-05 |
| 210808 Lacc1 | laccase (multicopper oxidoreductase) domain containing 1 | 50.00114 | 6.073117408 | 93.92916244 | 13.88859631 | 3.795828892 | 0.000561 | 0.009604 |
| 71878 Famsd3 | family with sequence similarity 83, member D | 64.719422 | 8.5255353369 | 120.9134909 | 13.84578127 | 3.791367993 | 4.99E-06 | 0.000181 |
| 66977 Nuf2 | NUF2, NDC80 kinetochore complex component | 355.19407 | 47.04500775 | 663.3431316 | 13.72814539 | 3.779064832 | 6.31E-19 | 1.36E-16 |
| 71804 Mitf2 | mitochondrial fission regulator 2 | 129.31308 | 17.59709535 | 241.0290583 | 13.60412328 | 3.765971984 | 6.60E-08 | 3.79E-06 |
| 18452 P4ha2 | procollagen-proline, 2-oxoglutarate 4-dioxygenase (proline 4-hydroxylase) | 11.699258 | 1.610429585 | 21.7880859 | 13.57901434 | 3.763306857 | 0.009461 | 0.089862 |
| 22137 Ttk | Ttk protein kinase | 201.35573 | 27.0688596 | 375.6426012 | 13.39745889 | 3.743887485 | 1.59E-11 | 1.58E-09 |
| 241633 Atpb84 | ATPase, class I, type 8B, member 4 | 224.25631 | 30.9380268 | 417.5745884 | 13.36466118 | 3.740351358 | 6.77E-05 | 0.001711 |
| 69941 281040811 | RIKEN cDNA 281040811 gene | 19.962419 | 2.880994485 | 37.04384426 | 13.35614237 | 3.739431472 | 0.00623 | 0.066625 |
| 207818 Smagg | small cell adhesion glycoprotein | 20.200151 | 2.379052794 | 38.02124848 | 13.31046892 | 3.734489493 | 0.004322 | 0.049911 |
| 23921 Sh2b2 | SH2B adaptor protein 2 | 18.572604 | 2.58557672 | 34.55963191 | 13.19209335 | 3.721601607 | 0.009137 | 0.088138 |
| 68026 2810417H1 | RIKEN cDNA 2810417H1 gene | 935.00423 | 129.8463055 | 1740.162155 | 13.1187572 | 3.713559148 | 1.64E-37 | 3.42E-34 |
| 77011 Ticrr | TOPBP1-interacting checkpoint and replication regulator | 299.10914 | 42.6995001 | 555.5183241 | 12.97592651 | 3.697765649 | 1.27E-16 | 2.25E-14 |
| 217169 Tns4 | tensin 4 | 149.87353 | 21.91073174 | 277.8363272 | 12.91182882 | 3.690621452 | 4.13E-07 | 1.99E-05 |
| 103080 10-Sep | septin 10 | 65.147804 | 9.61813059 | 120.674766 | 12.90115712 | 3.689428563 | 0.000168 | 0.003607 |

| | | | | | | | | |
|------------------|---|------------|-------------|-----------------|--------------|-------------|----------|----------|
| 83490 Ptk3ap1 | phosphoinositide-3-kinase adaptor protein 1 | 144.87122 | 19.74088797 | 270.001542 | 12.89477787 | 3.688715016 | 1.59E-05 | 0.000501 |
| 14191 Fgr | FGR proto-oncogene, Src family tyrosine kinase | 322.38885 | 45.02153031 | 599.756165 | 12.85181629 | 3.683900359 | 0.00015 | 0.003295 |
| 14537 Gcnt1 | glucosaminyl (N-acetyl) transferase 1, core 2 | 354.14604 | 50.01489607 | 658.2771908 | 12.80332829 | 3.67844699 | 1.05E-15 | 1.69E-13 |
| 237436 Gas2l3 | growth arrest-specific 2 like 3 | 164.35868 | 22.66632937 | 306.0510281 | 12.79435221 | 3.677435199 | 1.20E-08 | 8.11E-07 |
| 26382 Fgd2 | FYVE, RhoGEF and PH domain containing 2 | 62.766557 | 9.278265905 | 116.2548487 | 12.76695751 | 3.674342853 | 0.001132 | 0.017093 |
| 14969 H2-Eb1 | histocompatibility 2, class II antigen E beta | 132.08352 | 18.54350624 | 245.62535312 | 12.67652151 | 3.664087014 | 0.000373 | 0.006844 |
| 21973 Top2a | topoisomerase (DNA) II alpha | 5106.5618 | 739.3109796 | 9473.81254 | 12.595050816 | 3.654785879 | 2.34E-41 | 6.84E-38 |
| 52679 E2f7 | E2F transcription factor 7 | 158.54379 | 23.19700731 | 293.8905701 | 12.51337356 | 3.645398882 | 7.90E-09 | 5.52E-07 |
| 18436 P2rx1 | purinergic receptor P2X, ligand-gated ion channel, 1 | 13.604097 | 1.95029427 | 25.25789892 | 12.50753929 | 3.64472608 | 0.008708 | 0.085203 |
| 18768 Pkib | protein kinase inhibitor beta, cAMP dependent, testis specific | 21.521871 | 2.969888324 | 40.07385343 | 12.44284663 | 3.637244672 | 0.005149 | 0.05739 |
| 71988 Esc02 | establishment of sister chromatid cohesion N-acetyltransferase | 276.37906 | 40.58757873 | 512.1705312 | 12.42564192 | 3.635248479 | 3.26E-14 | 4.49E-12 |
| 108907 Nasu1 | nucleolar and spindle associated protein 1 | 622.33181 | 92.3148238 | 1152.34879 | 12.39662226 | 3.631875174 | 1.27E-25 | 6.23E-23 |
| 50918 Myadm | myeloid-associated differentiation marker | 297.21633 | 43.8084379 | 550.6242285 | 12.31808633 | 3.622706239 | 5.22E-09 | 3.74E-07 |
| 68612 Ube2c | ubiquitin-conjugating enzyme E2C | 471.91621 | 69.14923784 | 874.6831861 | 12.3141702 | 3.622247509 | 1.28E-23 | 4.26E-21 |
| 234258 Neil3 | nei like 3 (E. coli) | 228.05933 | 33.96807271 | 422.1509856 | 12.31338931 | 3.621921671 | 2.23E-12 | 2.41E-10 |
| 60411 Cenpk | centromere protein K | 69.5380211 | 10.18022987 | 128.8958124 | 12.27700474 | 3.617933254 | 1.05E-05 | 0.000349 |
| 623474 Rad54b | RAD54 homolog 8 (S. cerevisiae) | 119.68905 | 17.06641741 | 222.3116833 | 12.22325827 | 3.611557001 | 2.23E-06 | 8.81E-05 |
| 217866 Cdc42bpb | CDC42 binding protein kinase beta | 203.70955 | 31.02692064 | 376.3921875 | 12.1995020 | 3.608750353 | 2.22E-08 | 1.43E-06 |
| 18106 Cd244 | CD244 natural killer cell receptor 2B4 | 91.231825 | 13.60761297 | 168.8560373 | 12.18773813 | 3.607358502 | 0.002685 | 0.034256 |
| 14159 Fes | feline sarcoma oncogene | 189.66392 | 28.41260767 | 350.9152811 | 12.09338314 | 3.589684177 | 0.000293 | 0.005656 |
| 404710 Igap3 | IQ motif containing GTPase activating protein 3 | 148.81749 | 22.90158955 | 274.7333914 | 11.80205936 | 3.560966714 | 3.91E-08 | 2.37E-06 |
| 76498 Psqr4 | progesterin and adipoQ receptor family member IV | 169.13013 | 25.70940086 | 312.5508503 | 11.78452394 | 3.558821575 | 1.37E-09 | 1.09E-07 |
| 12984 Csf2rb2 | colony stimulating factor 2 receptor, beta 2, low-affinity (granulocyte-macrophage) | 102.87853 | 15.691248 | 190.0568211 | 11.78032431 | 3.558307352 | 0.000742 | 0.011993 |
| 216197 Ckap4 | cytoskeleton-associated protein 4 | 90.70208 | 13.62332364 | 167.7808366 | 11.68269599 | 3.546301335 | 0.001076 | 0.016437 |
| 208628 Kntc1 | kinetochore associated 1 | 457.38937 | 71.12826835 | 843.6504619 | 11.66507054 | 3.544123126 | 6.48E-22 | 1.86E-19 |
| 31975 Smo | smoothened, frizzled class receptor | 86.004458 | 19.42359427 | 159.0653218 | 11.63735363 | 3.540691117 | 2.11E-05 | 0.000635 |
| 14235 Foxm1 | forkhead box M1 | 598.18743 | 94.19193491 | 1102.182916 | 11.58139803 | 3.533737511 | 1.35E-28 | 9.86E-26 |
| 20135 Rrm2 | ribonucleotide reductase M2 | 1313.4325 | 205.7169687 | 2421.148022 | 11.55291964 | 3.530185589 | 3.08E-32 | 4.08E-29 |
| 71819 Kif23 | kinesin family member 23 | 574.07 | 91.1618899 | 1056.798111 | 11.54747016 | 3.529504913 | 2.85E-22 | 8.49E-20 |
| 16600 Kif4 | Kruppel-like factor 4 (gut) | 169.0523 | 26.74202049 | 311.3625821 | 11.51901203 | 3.525945079 | 0.00051 | 0.008827 |
| 52855 Lair1 | leukocyte-associated Ig-like receptor 1 | 233.44765 | 36.67127952 | 430.224029 | 11.50643018 | 3.524368408 | 0.000233 | 0.004669 |
| 16880 Lifr | leukemia inhibitory factor receptor | 175.13824 | 27.43746054 | 322.8390254 | 11.47661509 | 3.520625291 | 0.000184 | 0.003865 |
| 212032 Hk3 | hexokinase 3 | 96.700931 | 14.8938854 | 178.5079741 | 11.45438678 | 3.51782832 | 0.002259 | 0.029623 |
| 29813 Zfp385a | zinc finger protein 385A | 50.817426 | 8.096594844 | 93.53825685 | 11.43374225 | 3.515257568 | 0.001837 | 0.025203 |
| 20661 Sort1 | sortilin 1 | 196.1161 | 31.30662773 | 360.9255651 | 11.42582694 | 3.514226678 | 0.002983 | 0.037057 |
| 18769 Pkig | protein kinase inhibitor, gamma | 49.487156 | 7.594653153 | 91.37965892 | 11.41809951 | 3.513250635 | 0.000123 | 0.002775 |
| 17970 Ncf2 | neutrophil cytosolic factor 2 | 299.19668 | 47.29597859 | 551.0973791 | 11.30821163 | 3.499298882 | 0.000463 | 0.008165 |
| 14126 Ms4a2 | membrane-spanning 4-domains, subfamily A, member 2 | 142.43731 | 22.56172486 | 262.3128906 | 11.30447748 | 3.498822404 | 0.001342 | 0.019552 |
| 234404 Nxnl1 | nucleoredoxin-like 1 | 21.574374 | 3.058782164 | 40.0896586 | 11.29856004 | 3.498067013 | 0.004954 | 0.056666 |
| 70024 Mcm10 | minichromosome maintenance 10 replication initiation factor | 274.16911 | 43.89733174 | 504.4408975 | 11.2895028 | 3.496910045 | 4.11E-13 | 4.97E-11 |
| 68743 Anln | anillin, actin binding protein | 372.1198 | 60.13496835 | 684.1046345 | 11.26765968 | 3.494000751 | 9.36E-19 | 1.98E-16 |
| 18817 Plk1 | polo-like kinase 1 | 437.17171 | 71.06811076 | 803.2753029 | 11.23901746 | 3.490444013 | 4.12E-19 | 9.11E-17 |
| 54392 Ncagp | non-SMC condensin I complex, subunit G | 505.62923 | 80.89545037 | 930.3630017 | 11.23231996 | 3.489584033 | 4.92E-23 | 1.53E-20 |
| 20811 Srms | srp-related kinase lacking C-terminal regulatory tyrosine and | 12.541909 | 1.699323424 | 23.38494909 | 11.21072393 | 3.486807538 | 0.008696 | 0.085181 |
| 74107 Cep55 | centrosomal protein 55 | 298.44979 | 48.8906975 | 548.0088728 | 11.13163648 | 3.476593796 | 1.21E-13 | 1.56E-11 |
| 12297 Cacnb3 | calcium channel, voltage-dependent, beta 3 subunit | 123.33589 | 20.27156591 | 226.4002198 | 11.04794413 | 3.465706023 | 2.64E-07 | 1.34E-05 |
| 108912 Cdca2 | cell division cycle associated 2 | 297.27643 | 48.97959134 | 545.5732783 | 11.04522824 | 3.465351326 | 4.22E-15 | 6.49E-13 |
| 12484 Cd24a | CD24a antigen | 336.01969 | 55.22781133 | 616.8115601 | 11.03506941 | 3.4640238 | 6.58E-06 | 0.000231 |
| 100340 Smpd13b | sphingomyelin phosphodiesterase, acid-like 3B | 154.90474 | 25.23619542 | 284.5732857 | 10.96388465 | 3.45468715 | 9.06E-05 | 0.002174 |
| 240055 Neurl1b | neutralized E3 ubiquitin protein ligase 1B | 118.89887 | 18.9726476 | 218.8545774 | 10.95407978 | 3.453396388 | 1.20E-06 | 5.16E-05 |
| 27205 Podxl | podocalyxin-like | 20.16349 | 3.014355244 | 37.31264444 | 10.9182284 | 3.448666877 | 0.005188 | 0.057766 |
| 72391 Cdkn3 | cyclin-dependent kinase inhibitor 3 | 71.101456 | 11.53968861 | 130.6632242 | 10.90069434 | 3.446348127 | 1.13E-05 | 0.00037 |
| 218977 Dlgap5 | discs, large (Drosophila) homolog-associated protein 5 | 445.35461 | 72.97664321 | 817.7325767 | 10.8627027 | 3.441311193 | 5.54E-21 | 1.45E-18 |
| 20190 Ryr1 | ryanodine receptor 1, skeletal muscle | 17.671434 | 2.925441405 | 32.41742689 | 10.85065405 | 3.439710103 | 0.006195 | 0.066442 |
| 12229 Btk | Bruton agammaglobulinemia tyrosine kinase | 94.764179 | 15.64680108 | 173.8815657 | 10.83188084 | 3.437212827 | 0.003025 | 0.037482 |
| 16658 Mafb | v-maf musculoaponeurotic fibrosarcoma oncogene family, pr | 36.106341 | 5.895329729 | 66.31735303 | 10.81318298 | 3.434719354 | 0.0034 | 0.041088 |
| 72415 Sgol1 | shugoshin-like 1 (S. pombe) | 214.42633 | 35.29879521 | 393.5358356 | 10.79182089 | 3.431866405 | 5.13E-10 | 4.36E-08 |
| 1.01E+08 Gm21188 | predicted gene, 21188 | 86.617657 | 14.16971225 | 159.0566022 | 10.78196197 | 3.430547821 | 0.001983 | 0.026753 |
| 17121 Mxd3 | Max dimerization protein 3 | 122.52993 | 20.81795452 | 224.2419024 | 10.75584965 | 3.427049589 | 6.30E-07 | 2.90E-05 |
| 93966 Hemgn | hemogen | 53.840701 | 8.865218053 | 98.81618353 | 10.74788363 | 3.425980702 | 0.000296 | 0.005702 |
| 634731 Suds1 | sushi domain containing 1 | 44.856345 | 7.048264543 | 82.66442456 | 10.69884871 | 3.419383654 | 0.000542 | 0.009322 |
| 12449 Ccnf | cyclin F | 313.11995 | 51.52340624 | 574.7164852 | 10.68037092 | 3.416889847 | 5.38E-13 | 6.44E-11 |
| 17000 Ltbr | lymphotoxin B receptor | 44.832685 | 7.505759314 | 82.15961001 | 10.60209763 | 3.406277825 | 0.009071 | 0.087754 |
| 15368 Hmox1 | heme oxygenase 1 | 117.58413 | 19.51865337 | 215.6469149 | 10.59839954 | 3.405774515 | 0.002018 | 0.027192 |
| 268301 Sowahc | sosondowah ankyrin repeat domain family member C | 66.204929 | 10.69788224 | 121.7119755 | 10.594744998 | 3.405277637 | 0.000206 | 0.004425 |
| 11481 Acvr2b | activin receptor II B | 41.380265 | 6.457429012 | 76.30310068 | 10.59211805 | 3.404919201 | 0.003062 | 0.037844 |
| 217653 Mis18bp1 | MIS18 binding protein 1 | 264.71856 | 44.50387795 | 484.932344 | 10.579388384 | 3.4031837 | 2.78E-13 | 3.47E-11 |
| 234396 Ank1 | ankyrin repeat and LEM domain containing 1 | 135.26313 | 22.53298861 | 247.9932737 | 10.53892056 | 3.397655203 | 1.72E-06 | 7.03E-05 |
| 270906 Prr11 | proline rich 11 | 349.52072 | 59.60429041 | 639.4371495 | 10.4439509 | 3.384595676 | 2.77E-17 | 5.32E-15 |
| 269582 Clspn | claspin | 512.82236 | 88.7253637 | 936.9193576 | 10.42673771 | 3.382215937 | 2.55E-24 | 1.03E-21 |
| 19361 Rad51 | RAD51 recombinase | 321.5471 | 56.39645682 | 586.6977431 | 10.3504006 | 3.371614702 | 1.92E-15 | 3.05E-13 |
| 108115 Slco4a1 | solute carrier organic anion transporter family, member 4a1 | 67.91188 | 11.79065946 | 124.0331002 | 10.31987262 | 3.367353259 | 2.48E-05 | 0.000728 |
| 72145 Wdfy3 | WD repeat and FYVE domain containing 3 | 77.529901 | 13.56316605 | 141.4966352 | 10.30040959 | 3.364629801 | 0.004462 | 0.051362 |
| 56615 Mgst1 | microsomal glutathione S-transferase 1 | 83.157043 | 14.53831318 | 151.7757224 | 10.27722601 | 3.361379005 | 0.006772 | 0.070534 |
| 14282 Fosb | FBJ osteosarcoma oncogene B | 211.63989 | 36.98240796 | 386.297373 | 10.18246748 | 3.348015302 | 4.70E-05 | 0.001258 |
| 14025 Bcl11a | B cell CLL/lymphoma 11A (zinc finger protein) | 57.470107 | 9.884812108 | 105.055402 | 10.16605034 | 3.345687374 | 0.001173 | 0.017559 |
| 20460 Stil | Scl/Tal1 interrupting locus | 328.23165 | 57.65399614 | 598.8093028 | 10.11069761 | 3.337810637 | 3.55E-17 | 6.57E-15 |
| 232975 Atpl1a3 | ATPase, Na+/K+ transporting, alpha 3 polypeptide | 137.34 | 23.89244735 | 250.787549 | 10.05773085 | 3.330232947 | 0.001503 | 0.021444 |
| 14960 H2-Aa | histocompatibility 2, class II antigen A, alpha | 136.92155 | 24.26104829 | 249.5820464 | 9.984784397 | 3.319731287 | 0.000803 | 0.012835 |
| 1.01E+08 Gm15987 | predicted gene 15987 | 41.990581 | 7.963254085 | 76.01790758 | 9.93700938 | 3.312811727 | 0.004488 | 0.05154 |
| 14347 Fut7 | fucosyltransferase 7 | 136.90388 | 23.81926419 | 249.9885034</td | | | | |

| | | | | | | | | |
|------------------|--|------------|--------------|--------------|--------------|-------------|----------|----------|
| 16765 Stmn1 | stathmin 1 | 1559.2307 | 282.6229367 | 2835.838455 | 9.842553779 | 3.29903269 | 1.10E-28 | 8.43E-26 |
| 109246 Tspan9 | tetraspanin 9 | 133.37242 | 24.83617314 | 241.908666 | 9.83106812 | 3.29734817 | 6.90E-06 | 0.000242 |
| 71085 Arhgap19 | Rho GTPase activating protein 19 | 423.77356 | 76.33084314 | 771.2162763 | 9.787799077 | 3.290984486 | 1.29E-17 | 2.54E-15 |
| 215387 Ncapb | non-SMC condensin I complex, subunit H | 542.13535 | 100.6309681 | 983.639728 | 9.78446688 | 3.290490269 | 9.58E-15 | 1.37E-12 |
| 12575 Cdkn1a | cyclin-dependent kinase inhibitor 1A (P21) | 160.92042 | 30.0517735 | 291.7890669 | 9.773522511 | 3.288878623 | 9.90E-07 | 4.38E-05 |
| 68549 Sgol2a | shugoshin-like 2a (S. pombe) | 330.26453 | 61.36108633 | 599.1679835 | 9.676660315 | 3.274509219 | 8.97E-15 | 1.30E-12 |
| 268465 Eme1 | essential meiotic structure-specific endonuclease 1 | 82.34902 | 15.60235416 | 149.0956865 | 9.492453074 | 3.246780962 | 6.95E-05 | 0.001749 |
| 12873 Cpa3 | carboxypeptidase A3, mast cell | 78.588097 | 14.30305301 | 142.8731415 | 9.478511916 | 3.24466058 | 0.003361 | 0.040749 |
| 320692 9430037Gc | RIKEN cDNA 9430037G07 gene | 14.587414 | 2.630023639 | 26.54480513 | 9.446577358 | 3.239791713 | 0.007762 | 0.078406 |
| 12021 Bard1 | BRCA1 associated RING domain 1 | 343.47217 | 64.22905524 | 622.7152848 | 9.440109471 | 3.23880359 | 3.17E-16 | 5.45E-14 |
| 110033 Kif22 | kinesin family member 22 | 572.26579 | 107.802233 | 1036.729338 | 9.362734765 | 3.226929989 | 9.46E-23 | 2.88E-20 |
| 13857 Epor | erythropoietin receptor | 32.028961 | 6.146300574 | 57.91162066 | 9.330159493 | 3.221901733 | 0.008635 | 0.084699 |
| 13401 Dmwd | dystrophin myotonic-containing WD repeat motif | 34.120338 | 6.737136105 | 61.50353909 | 9.310979092 | 3.218932882 | 0.005786 | 0.062936 |
| 78416 Rnase6 | ribonuclease, RNase A family, 6 | 56.740377 | 10.7710654 | 102.709688 | 9.26214781 | 3.211346781 | 0.008618 | 0.084604 |
| 13605 Ect2 | ect2 oncogene | 359.15833 | 69.08908024 | 649.2275846 | 9.255838228 | 3.21036365 | 5.87E-16 | 9.75E-14 |
| 71779 8-Mar | membrane-associated ring finger (C3HC4) 8 | 72.885301 | 14.15400158 | 131.6166 | 9.246329868 | 3.20880833 | 0.005481 | 0.060335 |
| 233406 Prc1 | protein regulator of cytokinesis 1 | 693.94704 | 133.6422895 | 1254.251797 | 9.242032583 | 3.208210176 | 1.28E-25 | 6.23E-23 |
| 72155 Cenpn | centromere protein N | 94.821775 | 17.86377687 | 171.779773 | 9.217377354 | 3.204434572 | 3.85E-05 | 0.001066 |
| 21335 Tacc3 | transforming, acidic coiled-coil containing protein 3 | 776.59581 | 148.9806472 | 1404.210979 | 9.216010407 | 3.204142346 | 7.90E-25 | 3.50E-22 |
| 20878 Aurora | aurora kinase A | 266.97102 | 51.25672472 | 482.6853169 | 9.100477349 | 3.185942221 | 3.08E-11 | 2.98E-09 |
| 102920 Cenpi | centromere protein I | 170.37211 | 33.33279026 | 307.411422 | 9.098618002 | 3.185647443 | 6.18E-08 | 3.59E-06 |
| 60530 Fignl1 | fidgetin-like 1 | 407.94128 | 78.91641986 | 736.9661464 | 9.06301897 | 3.179991705 | 3.46E-17 | 6.47E-15 |
| 108800 Ston2 | stonin 2 | 101.05622 | 19.93170122 | 182.1807352 | 9.036981578 | 3.175840982 | 6.50E-06 | 0.000229 |
| 83672 Sytl3 | synaptotagmin-like 3 | 67.407965 | 13.35664212 | 121.4592878 | 9.035323183 | 3.175576206 | 7.86E-05 | 0.001923 |
| 27261 Dok3 | docking protein 3 | 115.35786 | 22.19312393 | 208.525923 | 9.012087785 | 3.171573186 | 0.001291 | 0.01894 |
| 70645 Oip5 | Opa interacting protein 5 | 80.324975 | 15.52917099 | 145.1207785 | 8.982410569 | 3.167102666 | 3.25E-05 | 0.000914 |
| 12236 Bub1b | BUB1B, mitotic checkpoint serine/threonine kinase | 644.78699 | 128.0868245 | 1161.487155 | 8.940401634 | 3.160339644 | 1.48E-26 | 8.32E-24 |
| 20201 S100a8 | S100 calcium binding protein A8 (calgranulin A) | 284.82421 | 56.40948239 | 513.2389379 | 8.939354531 | 3.160170665 | 0.002204 | 0.029047 |
| 13070 Cyp11a1 | cytochrome P450, family 11, subfamily a, polypeptide 1 | 63.208889 | 12.88343668 | 113.5343415 | 8.863160701 | 3.147821271 | 0.001234 | 0.018307 |
| 23834 Cd6 | cell division cycle 6 | 240.62625 | 48.75735574 | 432.4951335 | 8.85945808 | 3.147218454 | 3.43E-10 | 2.98E-08 |
| 66929 Asf1b | anti-silencing function 1B histone chaperone | 447.7895 | 89.50969758 | 806.0692978 | 8.786763314 | 3.135331804 | 1.28E-16 | 2.25E-14 |
| 12398 Cfba2t3 | core-binding factor, runt domain, alpha subunit 2, translocat | 97.729351 | 19.22323561 | 176.2354672 | 8.776023151 | 3.133567332 | 0.003579 | 0.042965 |
| 76044 Ncapg2 | non-SMC condensin II complex, subunit G2 | 853.05373 | 173.2861424 | 1532.821318 | 8.659451543 | 3.114275653 | 1.72E-27 | 1.10E-24 |
| 68799 Rgmb | repulsive guidance molecule family member B | 63.295486 | 12.39720566 | 114.1937668 | 8.649284698 | 3.112580826 | 0.000355 | 0.006544 |
| 69716 Trip13 | thyroid hormone receptor interactor 13 | 172.43685 | 35.16545445 | 309.7082377 | 8.606654504 | 3.105452556 | 3.89E-08 | 2.37E-06 |
| 69928 Apitd1 | apoptosis-inducing, TAF9-like domain 1 | 46.724914 | 9.131899572 | 84.31792746 | 8.461306282 | 3.080880408 | 0.005443 | 0.060054 |
| 12986 Csf3r | colony stimulating factor 3 receptor (granulocyte) | 145.01992 | 29.86096025 | 260.178882 | 8.44982212 | 3.07892094 | 0.004313 | 0.04988 |
| 18612 Etv4 | ets variant 4 | 21.319262 | 4.53587099 | 38.10265208 | 8.42787245 | 3.07516848 | 0.005872 | 0.063723 |
| 67052 Ndc80 | NDC80 kinetochore complex component | 360.15416 | 74.54262587 | 645.7656876 | 8.425768843 | 3.074808337 | 8.57E-16 | 1.41E-13 |
| 80876 Ifitm2 | interferon induced transmembrane protein 2 | 233.13356 | 48.52209657 | 417.7450311 | 8.418853565 | 3.073623788 | 7.27E-08 | 4.13E-06 |
| 66725 Lrrk2 | leucine-rich repeat kinase 2 | 118.51297 | 24.43883596 | 212.5871004 | 8.38027368 | 3.06699736 | 0.010579 | 0.098166 |
| 80986 Ckap2 | cytoskeleton associated protein 2 | 232.20845 | 49.31945603 | 415.0974506 | 8.316807224 | 3.056029792 | 1.07E-09 | 8.64E-08 |
| 58801 Pmaip1 | phorbol-12-myristate-13-acetate-induced protein 1 | 581.06372 | 123.655558 | 1038.47188 | 8.226078541 | 3.040204846 | 9.48E-24 | 3.22E-21 |
| 18140 Uhrf1 | ubiquitin-like, containing PHD and RING finger domains, 1 | 1231.0213 | 262.9134701 | 2199.129167 | 8.199183242 | 3.035480203 | 1.41E-27 | 9.33E-25 |
| 68166 Spire1 | spire homolog 1 (Drosophila) | 102.14678 | 21.46894764 | 182.824609 | 8.197736224 | 3.03522557 | 0.000178 | 0.003768 |
| 16164 Il13ra1 | interleukin 13 receptor, alpha 1 | 126.56689 | 26.84662501 | 226.2871523 | 8.183853204 | 3.032780267 | 0.00898 | 0.087129 |
| 20308 Ccl9 | chemokine (C-C motif) ligand 9 | 149.7096 | 31.64917751 | 267.7700174 | 8.177386527 | 3.031639835 | 0.00112 | 0.016983 |
| 259300 Ehd2 | EH-domain containing 2 | 53.919072 | 11.70176562 | 96.13637814 | 8.155739779 | 3.027815745 | 0.000702 | 0.011467 |
| 12306 Anxa2 | annexin A2 | 1831.9777 | 398.1554488 | 3265.7799916 | 8.110991272 | 3.019878242 | 6.07E-20 | 1.43E-17 |
| 16162 Il12rb2 | interleukin 12 receptor, beta 2 | 119.05499 | 26.0780018 | 212.0319852 | 8.109580955 | 3.019627368 | 7.76E-05 | 0.001905 |
| 333182 Cox6b2 | cytochrome c oxidase subunit Vb polypeptide 2 | 23.676564 | 4.713658668 | 46.63946938 | 8.098005463 | 3.017566616 | 0.007273 | 0.074556 |
| 320662 Casc1 | cancer susceptibility candidate 1 | 38.139734 | 8.642983455 | 67.6364841 | 8.079884425 | 3.014334657 | 0.009432 | 0.089644 |
| 27221 Chaf1a | chromatin assembly factor 1, subunit A (p150) | 418.32057 | 91.39983426 | 745.2412964 | 8.0402423033 | 3.007239111 | 2.15E-17 | 4.19E-15 |
| 224171 C330027Cc | RIKEN cDNA C330027C09 gene | 533.20831 | 117.1406565 | 949.2759696 | 8.782463986 | 2.978646673 | 4.69E-17 | 8.56E-15 |
| 110095 Pygl | liver glycogen phosphorylase | 213.84394 | 47.51552809 | 380.1723439 | 8.7371129674 | 2.976570708 | 0.001152 | 0.017306 |
| 67629 Spc24 | SPC24, NDC80 kinetochore complex component, homolog (S | 183.424666 | 41.473823203 | 325.3794911 | 7.744250624 | 2.953125643 | 2.01E-07 | 1.05E-05 |
| 100532 Rel1 | RELT-like 1 | 122.00866 | 27.7328783 | 216.2844508 | 7.686745981 | 2.942372993 | 2.94E-05 | 0.000836 |
| 64291 Osbp1la | oxysterol binding protein-like 1A | 45.384519 | 10.63772464 | 80.13131395 | 7.591475765 | 2.924380369 | 0.003069 | 0.037851 |
| 14268 Fn1 | fibronectin 1 | 1116.188 | 256.5472201 | 1975.828735 | 7.558367005 | 2.918074572 | 8.83E-05 | 0.002125 |
| 26934 Racgap1 | Rac GTPase-activating protein 1 | 1164.1852 | 268.4819607 | 2059.8838635 | 7.55329893 | 2.917106884 | 6.53E-29 | 5.61E-26 |
| 16952 Anxa1 | annexin A1 | 256.85047 | 59.3349238 | 454.3660254 | 7.538641811 | 2.914304626 | 0.001284 | 0.018869 |
| 19201 Pstip12 | proline-serine-threonine phosphatase-interacting protein 2 | 71.942054 | 16.04682336 | 127.8372875 | 7.536240283 | 2.913845058 | 0.008922 | 0.08677 |
| 233064 Wdr62 | WD repeat domain 62 | 222.37157 | 50.17965817 | 394.5634851 | 7.532401042 | 2.913109814 | 8.59E-07 | 3.85E-05 |
| 29870 Gtse1 | G two S phase expressed protein 1 | 235.70256 | 54.25534929 | 417.1497751 | 7.522260317 | 2.911166234 | 3.55E-10 | 3.07E-08 |
| 56419 Diaph3 | diaphanous related formin 3 | 334.24588 | 76.767070782 | 591.821059 | 7.484402227 | 2.903887094 | 1.05E-12 | 1.20E-10 |
| 15442 Hpse | heparanase | 114.28771 | 26.30023639 | 202.2751773 | 7.457779081 | 2.898746061 | 0.0005 | 0.008699 |
| 228482 Arhgap11a | Rho GTPase activating protein 11A | 819.52417 | 191.0008679 | 1448.047474 | 7.443239364 | 2.895930632 | 5.88E-24 | 2.18E-21 |
| 217198 Plekh3 | pleckstrin homology domain containing, family H (with MyTH | 37.902155 | 9.071741979 | 66.73256751 | 7.396624817 | 2.886867099 | 0.00207 | 0.027659 |
| 17750 Mt2 | metallothionein 2 | 88.572105 | 21.23100237 | 155.9132072 | 7.357809862 | 2.879276736 | 0.001543 | 0.021902 |
| 11656 Alas2 | aminolevulinic acid synthase 2, erythroid | 35.369101 | 8.436459529 | 62.30174318 | 7.33515895 | 2.874828229 | 0.004693 | 0.053398 |
| 27028 Ermap | erythroblast membrane-associated protein | 207.48468 | 49.30374536 | 365.6656109 | 7.31779551 | 2.871409504 | 6.39E-05 | 0.001634 |
| 26909 Exo1 | exonuclease 1 | 150.26101 | 36.19807408 | 264.3239523 | 7.310255126 | 2.869921757 | 2.82E-05 | 0.000806 |
| 233071 Arhgap33 | Rho GTPase activating protein 33 | 209.4668 | 50.67891477 | 368.2546943 | 7.192392884 | 2.84647183 | 2.95E-08 | 1.84E-06 |
| 51944 Knstrn | kinetochore-localized astrin/SPAG5 binding | 305.72252 | 73.38969106 | 538.0553501 | 7.159885569 | 2.83993653 | 3.68E-12 | 3.87E-10 |
| 99151 Cercam | cerebral endothelial cell adhesion molecule | 56.51954 | 13.48998288 | 99.54909645 | 7.151126292 | 2.838170482 | 0.000447 | 0.007959 |
| 26886 Cenph | centromere protein H | 128.32009 | 30.46750645 | 226.1726824 | 7.146251675 | 2.837186723 | 9.10E-05 | 0.002179 |
| 11932 Atpb1b2 | ATPase, Na ⁺ /K ⁺ transporting, beta 2 polypeptide | 85.632554 | 20.98003152 | 150.2850767 | 7.106294966 | 2.829097573 | 0.003403 | 0.041088 |
| 65221 Slc15a3 | solute carrier family 15, member 3 | 113.79738 | 27.36427377 | 200.2304884 | 7.090085208 | 2.825802966 | 5.33E-05 | 0.001388 |
| 12514 Cd68 | CD68 antigen | 128.11687 | 31.08707823 | 225.1466064 | 7.059618529 | 2.819590229 | 0.001208 | 0.017957 |
| 12189 Brca1 | breast cancer 1, early onset | 331.46008 | 81.88362308 | 581.0365463 | 7.051543307 | 2.817939042 | 9.29E-13 | 1.07E-10 |
| 108899 2700081O | RIKEN cDNA 2700081O15 gene | 58.468251 | | | | | | |

| | | | | | | | | |
|-----------------|--|-----------|--------------|--------------|-------------|-------------|----------|----------|
| 17064 Cd93 | CD93 antigen | 104.61742 | 25.00093525 | 184.2339011 | 7.035579161 | 2.814669189 | 0.004595 | 0.052404 |
| 20973 Kif15 | kinesin family member 15 | 728.23272 | 179.7983588 | 1276.667083 | 7.021991613 | 2.811880273 | 6.00E-19 | 1.31E-16 |
| 26874 Abcd2 | ATP-binding cassette, sub-family D (ALD), member 2 | 131.15977 | 32.17985545 | 230.1396745 | 7.007588385 | 2.808918036 | 0.003369 | 0.040811 |
| 71648 Optn | optineurin | 47.801381 | 11.95273646 | 83.65002523 | 6.995241976 | 2.806373963 | 0.00453 | 0.051865 |
| 382018 Unc13a | unc-13 homolog A (<i>C. elegans</i>) | 51.526652 | 12.14623482 | 90.90706924 | 6.97713486 | 2.802634719 | 0.003716 | 0.044272 |
| 13819 Eps1 | endothelial PAS domain protein 1 | 350.53524 | 86.59728175 | 614.4732011 | 6.972004803 | 2.801573563 | 7.79E-09 | 5.47E-07 |
| 16852 Lgals1 | lectin, galactose binding, soluble 1 | 2932.2643 | 728.9475918 | 5135.580918 | 6.947970645 | 2.796591659 | 4.43E-28 | 3.08E-25 |
| 54124 Cks1b | CDC28 protein kinase 1b | 223.46994 | 55.82133196 | 391.1185419 | 6.849667043 | 2.776033861 | 1.28E-07 | 6.92E-06 |
| 12608 Cebpb | CCAAT/enhancer binding protein (C/EBP), beta | 286.95029 | 71.69036764 | 502.2102143 | 6.80783791 | 2.767196688 | 0.000218 | 0.004423 |
| 269224 Pask | PAS domain containing serine/threonine kinase | 101.36974 | 25.57606011 | 177.1634122 | 6.798835175 | 2.765287595 | 5.29E-05 | 0.001387 |
| 58861 Cysltr1 | cysteinyl leukotriene receptor 1 | 92.337903 | 22.71077629 | 161.9650291 | 6.778480791 | 2.760961969 | 0.00118 | 0.017604 |
| 24136 Zeb2 | zinc finger E-box binding homeobox 2 | 215.51466 | 54.65268647 | 376.376636 | 6.749860083 | 2.754857597 | 0.000611 | 0.010266 |
| 13805 Eng | endoglin | 54.34152 | 13.94747765 | 94.73556299 | 6.69924339 | 2.743998167 | 0.007355 | 0.075295 |
| 70385 Spd1 | spindle apparatus coiled-coil protein 1 | 133.69892 | 33.82170638 | 233.5761407 | 6.668968221 | 2.737463574 | 1.85E-05 | 0.000563 |
| 68813 Dock5 | dicator of cytokinesis 5 | 330.30042 | 85.66389644 | 574.9369481 | 6.661795435 | 2.735911053 | 1.22E-06 | 5.22E-05 |
| 19016 Pparc | peroxisome proliferator activated receptor gamma | 49.501146 | 12.72135967 | 86.28093236 | 6.63732344 | 2.730601579 | 0.005748 | 0.062659 |
| 19348 Kif20a | kinesin family member 20A | 441.8919 | 114.1393468 | 769.6444575 | 6.618751845 | 2.726559181 | 7.81E-14 | 1.04E-11 |
| 108900 Fam72a | family with sequence similarity 72, member A | 35.852577 | 9.411606664 | 62.29354673 | 6.600872007 | 2.722656624 | 0.004403 | 0.050792 |
| 17864 Mybl1 | myeloblastosis oncogene-like 1 | 82.319179 | 21.58567773 | 143.0517806 | 6.543922141 | 2.710155583 | 0.000209 | 0.004256 |
| 18483 Palm1 | paramelemin | 91.243789 | 23.62576584 | 158.8618127 | 6.537144809 | 2.708660656 | 0.001362 | 0.019811 |
| 1E+08 Mir22hg | Mir22 host gene (non-protein coding) | 47.599263 | 12.01289406 | 83.18563201 | 6.522457424 | 2.705415622 | 0.001962 | 0.026558 |
| 17865 Mybl2 | myeloblastosis oncogene-like 2 | 325.12095 | 84.90064343 | 565.3412646 | 6.470337178 | 2.693840895 | 9.32E-12 | 9.52E-10 |
| 329207 Rbm44 | RNA binding motif protein 44 | 50.750249 | 12.98804119 | 88.51254695 | 6.462095476 | 2.692002066 | 0.001422 | 0.020568 |
| 71924 Tube1 | epsilon-tubulin 1 | 124.89994 | 33.45042035 | 216.3494615 | 6.434574562 | 2.685844764 | 7.75E-05 | 0.001905 |
| 54153 Ras4 | RAS p21 protein activator 4 | 102.9083 | 27.11303652 | 178.7032867 | 6.349093011 | 2.666550513 | 0.001876 | 0.025627 |
| 77767 Ermn | ermin, ERM-like protein | 81.693064 | 22.59046111 | 140.7956667 | 6.2762608 | 2.649905302 | 0.001005 | 0.015599 |
| 93695 Gpnmb | glycoprotein (transmembrane) nmb | 40.188373 | 10.40246447 | 69.97428215 | 6.27526558 | 2.649675823 | 0.004834 | 0.054694 |
| 109242 Kif24 | kinesin family member 24 | 89.463885 | 24.26104829 | 154.6667223 | 6.258747213 | 2.645873908 | 0.000163 | 0.003525 |
| 217303 Cd300a | CD300A molecule | 219.79469 | 58.8958248 | 380.6935514 | 6.249463358 | 2.643732311 | 0.000915 | 0.014382 |
| 72349 Dusp3 | dual specificity phosphatase 3 (vaccinia virus phosphatase Vt) | 50.582272 | 13.32790588 | 87.836363875 | 6.227563637 | 2.638678759 | 0.006941 | 0.07201 |
| 76123 Gpsm2 | G-protein signalling modulator 2 (<i>AGS3</i> -like, <i>C. elegans</i>) | 273.47786 | 76.12163411 | 470.8340804 | 6.111233945 | 2.61146371 | 3.49E-09 | 2.59E-07 |
| 14425 Galnt3 | UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminidase | 27.676847 | 7.550206234 | 47.80348712 | 6.107930082 | 2.610683548 | 0.009563 | 0.090713 |
| 19366 Rad54l | Rad54 like (S. cerevisiae) | 148.31217 | 41.1052311 | 255.5191179 | 6.07181349 | 2.602127476 | 1.65E-05 | 0.000515 |
| 268288 Samd3 | sterile alpha motif domain containing 3 | 40.448555 | 11.19982393 | 69.6972851 | 6.043956807 | 2.595493935 | 0.003735 | 0.044471 |
| 12722 Clca3a1 | chloride channel accessory 3A1 | 61.230747 | 16.84418281 | 105.6173113 | 6.028566178 | 2.591814915 | 0.002618 | 0.033521 |
| 433182 Eno1b | enolase 1B, retrotransposed | 645.87969 | 182.0754922 | 1109.63889 | 6.019895578 | 2.589738462 | 1.00E-19 | 2.32E-17 |
| 13555 Ezf1 | E2F transcription factor 1 | 191.63853 | 54.07756162 | 329.1995079 | 5.975840018 | 2.579141526 | 1.71E-06 | 6.99E-05 |
| 320116 Fndc9 | fibronectin type III domain containing 9 | 85.97855 | 23.93689427 | 148.0202053 | 5.957779131 | 2.57477464 | 0.00062 | 0.010397 |
| 12774 Ccr5 | chemokine (C-C motif) receptor 5 | 127.69338 | 35.93407766 | 219.4526778 | 5.944309528 | 2.571509241 | 4.25E-05 | 0.001156 |
| 68298 Ncapd2 | non-SMC condensin I complex, subunit D2 | 2158.5661 | 613.1928452 | 3703.93293 | 5.930381587 | 2.568124937 | 5.97E-24 | 2.18E-21 |
| 27251 Gins2 | GINS complex subunit 2 (Psf2 homolog) | 85.315604 | 23.68592343 | 146.9452851 | 5.919490095 | 2.565472907 | 0.000849 | 0.013467 |
| 12447 Ccne1 | cyclin E1 | 331.84119 | 93.32407738 | 570.538307 | 5.918984595 | 2.565349702 | 1.25E-09 | 9.94E-08 |
| 97165 Hmgb2 | high mobility group box 2 | 3524.7724 | 1007.933936 | 6041.610818 | 5.890402038 | 2.558370593 | 9.38E-18 | 1.90E-15 |
| 17110 Lyz1 | lysozyme 1 | 318.03948 | 90.96839064 | 545.1105679 | 5.876107098 | 2.554860691 | 0.002601 | 0.033387 |
| 16597 Klf12 | Kruppel-like factor 12 | 34.482702 | 9.840365188 | 59.12503923 | 5.869142582 | 2.553149757 | 0.004891 | 0.055171 |
| 16956 Lpl | lipoprotein lipase | 147.94176 | 42.52216233 | 253.3613614 | 5.838947072 | 2.545708234 | 0.007851 | 0.079043 |
| 12448 Ccne2 | cyclin E2 | 85.747579 | 24.94077766 | 146.5543795 | 5.739635218 | 2.52095905 | 0.000625 | 0.010455 |
| 16905 Lmna | lamin A | 388.63178 | 115.3627797 | 661.9007732 | 5.718363662 | 2.515602372 | 2.22E-10 | 1.98E-08 |
| 73174 Tbkbp1 | TBK1 binding protein 1 | 73.986076 | 21.83754857 | 126.1346034 | 5.717920411 | 2.515490539 | 0.000864 | 0.013684 |
| 22041 Trf | transferrin | 82.140171 | 24.12770753 | 140.1526343 | 5.677448946 | 2.505242828 | 0.010073 | 0.094446 |
| 77300 Raph1 | Ras association (RalGDS/AF-6) and pleckstrin homology domain | 482.30209 | 140.991342 | 283.612384 | 5.668037563 | 2.502849319 | 1.62E-10 | 1.47E-08 |
| 66205 Cd302 | CD302 antigen | 68.21876 | 20.18267207 | 116.2548487 | 5.661033492 | 2.501065459 | 0.005786 | 0.062936 |
| 16973 Lrp5 | low density lipoprotein receptor-related protein 5 | 112.07454 | 33.08181942 | 191.0672537 | 5.660440906 | 2.500914433 | 0.000251 | 0.004984 |
| 108682 Gpt2 | glutamic pyruvate transaminase (alanine aminotransferase) | 89.418985 | 26.87536125 | 151.962608 | 5.653690101 | 2.499192806 | 0.000879 | 0.013875 |
| 23457 Cpne2 | copine II | 75.100554 | 22.2663071 | 127.9348011 | 5.618957343 | 2.490302448 | 0.001571 | 0.022218 |
| 215114 Hip1 | huntingtin interacting protein 1 | 357.31516 | 106.6492982 | 607.9810144 | 5.566901289 | 2.476874502 | 2.10E-10 | 1.88E-08 |
| 67299 Dock7 | dedicator of cytokinesis 7 | 68.125579 | 19.94741189 | 116.303747 | 5.565324078 | 2.476465701 | 0.008606 | 0.084575 |
| 52033 Pbk | PBK2 binding protein | 168.42725 | 51.00306878 | 285.851435 | 5.562707523 | 2.475787253 | 4.12E-05 | 0.001129 |
| 77022 2700099C1 | NDC80 homolog, kinetochore complex component pseudogene | 125.53624 | 38.1196321 | 212.9528556 | 5.540179491 | 2.469932717 | 0.000117 | 0.002679 |
| 72107 Dsccl1 | DNA replication and sister chromatid cohesion 1 | 59.933292 | 18.2332778 | 101.6342068 | 5.531984817 | 2.467797197 | 0.002131 | 0.028268 |
| 22036 Traip | TRAIF-interacting protein | 129.81768 | 38.90396598 | 220.7313876 | 5.530424737 | 2.467390284 | 6.57E-05 | 0.001666 |
| 14087 Fanca | Fanconi anemia, complementation group A | 102.16569 | 30.62958346 | 173.7017957 | 5.526562527 | 2.464638246 | 0.000248 | 0.00493 |
| 219114 Ska3 | spindle and kinetochore associated complex subunit 3 | 191.69198 | 58.34675109 | 325.0372033 | 5.520504032 | 2.464799994 | 4.10E-06 | 0.000152 |
| 70458 2610318N1 | RIKEN cDNA 2610318N02 gene | 86.921192 | 25.88718854 | 147.9551946 | 5.50452163 | 2.460617192 | 0.000695 | 0.011361 |
| 66336 Cenpp | centromere protein P | 49.066788 | 14.760544778 | 83.37302859 | 5.503246427 | 2.460282932 | 0.004091 | 0.047808 |
| 18392 Orc1 | origin recognition complex, subunit 1 | 143.38667 | 42.82026519 | 243.9530745 | 5.501919836 | 2.459935119 | 8.79E-05 | 0.00212 |
| 73254 Ccdc18 | coiled-coil domain containing 18 | 58.9333 | 18.35000788 | 99.51659111 | 5.44400736 | 2.444669017 | 0.008322 | 0.082536 |
| 100952 Emilin1 | elastin microfibril interfacer 1 | 157.00959 | 47.81360395 | 266.2055336 | 5.415721338 | 2.437153508 | 5.30E-05 | 0.001387 |
| 68014 Zwilch | zwilch kinetochore protein | 212.36462 | 65.0264147 | 359.7082814 | 5.415378771 | 2.437062249 | 1.59E-06 | 6.58E-05 |
| 74041 Ddias | DNA damage-induced apoptosis suppressor | 107.29696 | 33.24389643 | 181.3500257 | 5.401953839 | 2.433481312 | 0.000331 | 0.006178 |
| 19088 Prkar2b | protein kinase, cAMP dependent regulatory, type II beta | 98.500621 | 29.99430101 | 167.0069414 | 5.387415303 | 2.429593283 | 0.004515 | 0.051735 |
| 65972 Ifi30 | interferon gamma inducible protein 30 | 428.47429 | 131.2946458 | 725.6539126 | 5.385895485 | 2.429186234 | 2.07E-06 | 8.24E-05 |
| 71675 0610010FO | RIKEN cDNA 0610010F05 gene | 146.82371 | 45.58094449 | 248.0664808 | 5.380524626 | 2.427746849 | 0.000146 | 0.003233 |
| 68262 Agpat4 | 1-acylglycerol-3-phosphate O-acyltransferase 4 (lysophosphatidic acid acyltransferase) | 222.55743 | 68.23424829 | 376.8806091 | 5.356320563 | 2.421242305 | 1.20E-06 | 5.16E-05 |
| 20362 8-Sep | septin 8 | 355.60036 | 110.6805424 | 600.5201809 | 5.354141041 | 2.420655143 | 2.80E-09 | 2.14E-07 |
| 74568 Mlk1 | mixed lineage kinase domain-like | 86.953687 | 27.37730294 | 146.5300706 | 5.335675397 | 2.415670901 | 0.006071 | 0.065426 |
| 20200 S100a6 | S100 calcium binding protein A6 (calcyclin) | 1091.3475 | 344.7104845 | 1837.984542 | 5.285393783 | 2.402010962 | 2.02E-10 | 1.82E-08 |
| 57441 Gmnn | geminin | 246.95038 | 76.8484955 | 417.0252291 | 5.259056943 | 2.394804118 | 6.00E-07 | 2.78E-05 |
| 14211 Smc2 | structural maintenance of chromosomes 2 | 1474.596 | 465.278924 | 2483.913036 | 5.233694889 | 2.387829821 | 2.32E-20 | 5.73E-18 |
| 12649 Chek1 | checkpoint kinase 1 | 154.5858 | 49.31945603 | 259.8521457 | 5.208392047 | 2.380838047 | 4.47E-05 | 0.001203 |
| 236930 Ercc6l | excision repair cross-complementing rodent repair deficiency | 234.58928 | 74.77788605 | 394.4006779 | 5.181854375 | 2. | | |

| | | | | | | | | |
|---|---|-----------|-------------|-------------|-------------|-------------|----------|----------|
| 16906 Lmnb1 | lamin B1 | 2384.3726 | 764.3015744 | 4004.443594 | 5.142851149 | 2.362568398 | 5.02E-21 | 1.33E-18 |
| 80879 Slc16a3 | solute carrier family 16 (monocarboxylic acid transporters), n | 256.96573 | 81.44452408 | 432.4869371 | 5.137356142 | 2.36102609 | 1.01E-06 | 4.43E-05 |
| 20454 St3gal5 | ST3 beta-galactoside alpha-2,3-sialyltransferase 5 | 76.89693 | 24.64535989 | 129.1485001 | 5.089245542 | 2.347451799 | 0.004798 | 0.054372 |
| 327762 Dna2 | DNA replication helicase/nuclease 2 | 268.68545 | 86.37773225 | 450.9931675 | 5.080620438 | 2.345004688 | 3.34E-06 | 0.000128 |
| 16404 Itga7 | integrin alpha 7 | 81.156295 | 25.93163546 | 136.3809548 | 5.069524047 | 2.341850306 | 0.001708 | 0.023807 |
| 228421 Kif18a | kinesin family member 18A | 149.70231 | 48.08031247 | 251.3243079 | 5.063097643 | 2.340020307 | 0.000121 | 0.002742 |
| 211651 Fancd2 | Fanconi anemia, complementation group D2 | 213.29869 | 68.89826699 | 357.6991214 | 5.059509445 | 2.338997512 | 3.78E-06 | 0.000143 |
| 263406 Plekhhg3 | pleckstrin homology domain containing, family G (with RhoG) | 148.59234 | 48.34430889 | 248.840376 | 5.057964704 | 2.338556969 | 0.000329 | 0.00617 |
| 16881 Lig1 | ligase I, DNA, ATP-dependent | 1017.2338 | 331.0561395 | 1703.41142 | 5.057564912 | 2.338442931 | 2.15E-19 | 4.84E-17 |
| 217944 Rapgef5 | Rap guanine nucleotide exchange factor (GEF) 5 | 40.458592 | 13.1501182 | 67.76706644 | 4.992652702 | 2.319806554 | 0.0104 | 0.09695 |
| 140570 Plxnb2 | plexin B2 | 279.39525 | 91.38412359 | 467.4063716 | 4.991230702 | 2.319395589 | 0.005778 | 0.062936 |
| 60406 Sap30 | sin3 associated polypeptide | 77.574623 | 26.10673804 | 129.0425071 | 4.939868977 | 2.304472777 | 0.007228 | 0.074291 |
| 18576 Pde3b | phosphodiesterase 3B, cGMP-inhibited | 188.69453 | 62.57417874 | 314.8148803 | 4.93020065 | 2.301646363 | 1.08E-05 | 0.000356 |
| 15366 Hmmer | hyaluronan mediated motility receptor (RHAMM) | 518.1161 | 172.0887607 | 864.1434451 | 4.92474164 | 2.30004804 | 9.19E-13 | 1.07E-10 |
| 66311 Cenpw | centromere protein W | 54.306245 | 17.81932995 | 90.79316029 | 4.924065579 | 2.299849976 | 0.00421 | 0.048891 |
| 19252 Dusp1 | dual specificity phosphatase 1 | 926.20976 | 308.3323376 | 154.0871777 | 4.903711382 | 2.293874069 | 1.15E-11 | 1.16E-09 |
| 12767 Cxcr4 | chemokine (C-X-C motif) receptor 4 | 786.64013 | 262.4873967 | 1310.792864 | 4.903454525 | 2.293798498 | 8.04E-14 | 1.06E-11 |
| 14676 Gna15 | guanine nucleotide binding protein, alpha 15 | 230.28905 | 77.08375567 | 383.4934403 | 4.862417482 | 2.281673767 | 6.87E-07 | 3.14E-05 |
| 17279 Melk | maternal embryonic leucine zipper kinase | 274.44902 | 93.15663018 | 455.7414098 | 4.840195996 | 2.275065468 | 8.76E-07 | 3.91E-05 |
| 68201 Ccdc34 | coiled-coil domain containing 34 | 180.73031 | 60.66833139 | 300.7976908 | 4.827474356 | 2.271268595 | 4.04E-05 | 0.00111 |
| 15270 H2afx | H2A histone family, member X | 723.67051 | 244.1437037 | 1203.206315 | 4.826970584 | 2.271118035 | 2.51E-16 | 4.37E-14 |
| 18799 Plcd1 | phospholipase C, delta 1 | 88.226513 | 29.65443632 | 146.7985903 | 4.82542436 | 2.270655822 | 0.001014 | 0.015697 |
| 12531 Cdc25b | cell division cycle 25B | 1934.6166 | 658.3162949 | 3210.916903 | 4.79491465 | 2.261505135 | 1.30E-20 | 3.34E-18 |
| 1E+08 Gm15706 | predicted gene 15706 | 53.242846 | 17.90822379 | 88.57746765 | 4.792611699 | 2.260812056 | 0.007889 | 0.079147 |
| 66570 Cenpm | centromere protein M | 67.143767 | 23.27019048 | 111.0173433 | 4.777806536 | 2.256348437 | 0.006073 | 0.065426 |
| 76843 Dtl | denticleless E3 ubiquitin protein ligase | 326.32209 | 112.0557118 | 540.5884607 | 4.74728424 | 2.247102433 | 3.04E-09 | 2.29E-07 |
| 58206 Zbtb32 | zinc finger and BTB domain containing 32 | 205.19639 | 70.0512018 | 340.3415794 | 4.739585677 | 2.244760948 | 8.09E-06 | 0.000277 |
| 16153 Il10 | interleukin 10 | 76.924657 | 26.09371247 | 127.7556009 | 4.732189972 | 2.242507991 | 0.003741 | 0.044498 |
| 17996 Nebulin | nebulin | 2697.0601 | 930.1789066 | 4463.941194 | 4.724394944 | 2.240129574 | 6.15E-15 | 9.17E-13 |
| 104732 4930427AC RIKEN cDNA 4930427A07 gene | | 299.84044 | 103.3682814 | 496.3197793 | 4.720810269 | 2.239034612 | 8.22E-09 | 5.67E-07 |
| 16319 Incenp | inner centromere protein | 1195.6387 | 414.5659028 | 1976.711491 | 4.685776995 | 2.228288295 | 2.84E-17 | 5.38E-15 |
| 233016 Blvrb | biliverdin reductase B (flavin reductase (NADPH)) | 108.39663 | 37.69087358 | 179.1023887 | 4.670800577 | 2.22366985 | 0.008381 | 0.08284 |
| 12982 Csf2ra | colony stimulating factor 2 receptor, alpha, low-affinity (gran | 221.04387 | 76.15305546 | 365.9346916 | 4.66198894 | 2.220945554 | 0.006123 | 0.06587 |
| 98878 Eh4d | EH-domain containing 4 | 312.00129 | 108.9080358 | 515.0945474 | 4.659033185 | 2.220030607 | 4.77E-08 | 2.80E-06 |
| 18973 Pole | polymerase (DNA directed), epsilon | 709.84949 | 248.2992887 | 1171.399695 | 4.639720476 | 2.214037891 | 4.76E-16 | 8.00E-14 |
| 57740 Stk32c | serine/threonine kinase 32C | 79.948523 | 27.9551129 | 131.941934 | 4.618881194 | 2.207543438 | 0.001877 | 0.025627 |
| 13511 Dsg2 | desmoglein 2 | 48.945677 | 16.88862973 | 81.0027259 | 4.61743852 | 2.206875691 | 0.006863 | 0.07131 |
| 240641 Kif20b | kinesin family member 20B | 606.29807 | 212.2345553 | 1000.361593 | 4.61359652 | 2.205891839 | 1.84E-13 | 2.33E-11 |
| 73139 Cenpv | centromere protein V | 41.224177 | 14.4206831 | 68.02767017 | 4.610885659 | 2.20504389 | 0.01071 | 0.09908 |
| 106795 Tcf19 | transcription factor 19 | 366.9211 | 130.1704595 | 603.6717345 | 4.56758969 | 2.191433058 | 5.57E-10 | 4.70E-08 |
| 106952 Arap3 | ArfGAP with RhoGAP domain, ankyrin repeat and PH domain | 70.638515 | 24.94077766 | 116.3362523 | 4.5417591 | 2.183251186 | 0.008268 | 0.082214 |
| 432628 Mfsd2b | major facilitator superfamily domain containing 2B | 119.03795 | 42.77313318 | 195.3027655 | 4.523960991 | 2.17758649 | 0.002816 | 0.035528 |
| 233040 Fbxo27 | F-box protein 27 | 48.215864 | 17.13960058 | 79.2921275 | 4.52002899 | 2.176332026 | 0.010658 | 0.098729 |
| 50878 Stag3 | stromal antigen 3 | 67.984571 | 24.5852023 | 111.38394 | 4.516534455 | 2.175216214 | 0.009001 | 0.087191 |
| 18974 Pole2 | polymerase (DNA directed), epsilon 2 (p59 subunit) | 201.05467 | 72.03023232 | 330.0791156 | 4.482366461 | 2.164260603 | 2.05E-05 | 0.000616 |
| 56150 Mad2l1 | MAD2 mitotic arrest deficient-like 1 | 430.55636 | 154.551823 | 706.5609031 | 4.462527777 | 2.157861149 | 4.95E-09 | 3.58E-07 |
| 70235 Poc1a | POC1 centriolar protein A | 80.847141 | 29.01915387 | 132.6751274 | 4.442053728 | 2.151226843 | 0.002809 | 0.035498 |
| 20133 Rrm1 | ribonucleotide reductase M1 | 1518.5045 | 551.9467038 | 2485.062286 | 4.421777882 | 2.144626557 | 3.56E-15 | 5.53E-13 |
| 77782 Polq | polymerase (DNA directed), theta | 260.60705 | 94.53448469 | 426.6796065 | 4.392826402 | 2.135149487 | 1.47E-06 | 6.12E-05 |
| 329731 Fam19a3 | family with sequence similarity 19, member A3 | 140.91696 | 51.50769557 | 230.3262296 | 4.361458704 | 2.12481073 | 0.000361 | 0.00664 |
| 20393 Sgk1 | serum/glucocorticoid regulated kinase 1 | 330.4558 | 122.6934364 | 538.2181573 | 4.327129862 | 2.113410418 | 1.46E-08 | 9.62E-07 |
| 54167 Icos | Inducible T cell co-stimulator | 3781.006 | 1408.738205 | 6153.27378 | 4.298511144 | 2.103837046 | 4.72E-20 | 1.13E-17 |
| 14284 Fosl2 | fos-like antigen 2 | 134.03682 | 49.63058447 | 218.4403487 | 4.287374429 | 2.100094418 | 0.002788 | 0.035378 |
| 17245 Mdm1 | transformed mouse 3T3 cell double minute 1 | 202.55977 | 75.01583132 | 330.1037049 | 4.277088536 | 2.096629071 | 9.38E-05 | 0.002226 |
| 226409 Zranb3 | zinc finger, RAN-binding domain containing 3 | 92.597837 | 34.16157107 | 151.0341201 | 4.217056216 | 2.094744882 | 0.00314 | 0.038478 |
| 18968 Pola1 | polymerase (DNA directed), alpha 1 | 542.9605 | 203.499993 | 882.4210162 | 4.263753287 | 2.092123962 | 2.58E-11 | 2.55E-09 |
| 56078 Car5b | carbonic anhydrase 5b, mitochondrial | 193.59139 | 72.85632802 | 314.3264587 | 4.258838349 | 2.090459971 | 4.79E-05 | 0.001278 |
| 243300 Nyap1 | neuronal tyrosine phosphorylated phosphoinositide 3-kinase | 80.347253 | 29.87670792 | 130.817835 | 4.243739842 | 2.085336216 | 0.004784 | 0.0543 |
| 239217 Kctd12 | potassium channel tetramerization domain containing 12 | 342.66642 | 128.7952901 | 556.5375521 | 4.230466912 | 2.080816901 | 0.000152 | 0.003324 |
| 12544 Cdc45 | cell division cycle 45 | 262.94913 | 99.80487244 | 426.0933883 | 4.226738533 | 2.079522793 | 1.87E-05 | 0.000569 |
| 102124 Enkd1 | enkfrin domain containing 1 | 63.611785 | 24.17215445 | 103.0514148 | 4.210737901 | 2.074073077 | 0.006458 | 0.068557 |
| 16480 Jup | junction plakoglobin | 87.453767 | 33.12626634 | 141.7812673 | 4.198585016 | 2.069903201 | 0.002729 | 0.034721 |
| 210544 Tbc1d31 | TBC1 domain family, member 31 | 143.71758 | 53.69593511 | 233.7392284 | 4.195900452 | 2.06898045 | 0.001706 | 0.023802 |
| 227737 Fam129b | family with sequence similarity 129, member B | 214.56679 | 82.48748419 | 346.646089 | 4.187862233 | 2.066213983 | 0.000201 | 0.004147 |
| 237911 Brrip1 | BRCA1 interacting protein C-terminal helicase 1 | 246.72682 | 94.36972258 | 399.0839095 | 4.167175891 | 2.059069997 | 1.96E-06 | 7.95E-05 |
| 744617 Scpep1 | serine carboxypeptidase 1 | 327.10975 | 123.8935032 | 530.3259968 | 4.164239721 | 2.058053122 | 1.05E-06 | 4.57E-05 |
| 21415 Tcf7l1 | transcription factor 7 like 1 (T cell specific, HMG box) | 65.494355 | 25.02967149 | 105.9509381 | 4.153018382 | 2.054160257 | 0.009222 | 0.088607 |
| 27214 Dbf4 | DBF4 zinc finger | 505.18581 | 194.1458588 | 816.2257686 | 4.150760545 | 2.053375706 | 1.30E-10 | 1.19E-08 |
| 17999 Nedd4 | neural precursor cell expressed, developmentally down-regulated | 386.02052 | 148.0863386 | 623.9546952 | 4.147019565 | 2.052074854 | 0.003122 | 0.038288 |
| 16647 Kpna2 | karyopherin (importin) alpha 2 | 1590.5213 | 611.1168655 | 2569.92573 | 4.1385042 | 2.049109422 | 1.41E-13 | 1.81E-11 |
| 112407 Egln3 | egl-9 family hypoxia-inducible factor 3 | 121.40254 | 46.94040323 | 195.8646747 | 4.116479441 | 2.041411021 | 0.002033 | 0.027371 |
| 11852 Rhob | ras homolog family member B | 423.99929 | 165.0508366 | 682.9477497 | 4.111804121 | 2.039771539 | 1.10E-07 | 6.08E-06 |
| 52502 Carhsp1 | calcium regulated heat stable protein 1 | 418.84078 | 162.3085531 | 675.3730072 | 4.073058014 | 2.026112363 | 2.81E-09 | 2.14E-07 |
| 240327 Gm4951 | predicted gene 4951 | 173.55364 | 67.40546749 | 279.7018161 | 4.061281713 | 2.021935104 | 0.00017 | 0.003629 |
| 72472 Slc16a10 | solute carrier family 16 (monocarboxylic acid transporters), n | 144.22756 | 56.26311606 | 232.191999 | 4.058040064 | 2.020783109 | 0.005723 | 0.062437 |
| 11501 Adam8 | a disintegrin and metalloproteinase domain 8 | 220.4315 | 85.86007989 | 355.0029231 | 4.049108085 | 2.017604411 | 1.72E-05 | 0.000532 |
| 14766 Adgrg1 | adhesion G protein-coupled receptor G1 | 151.50548 | 58.43833002 | 244.5726394 | 4.040103481 | 2.014392246 | 0.010049 | 0.094284 |
| 17427 Mns1 | meiosis-specific nuclear structural protein 1 | 148.99758 | 58.31801484 | 239.6717414 | 4.025828641 | 2.009285766 | 0.001422 | 0.020568 |
| 66197 Cks2 | CDC28 protein kinase regulatory subunit 2 | 321.78262 | 127.566487 | 515.9987444 | 4.008516205 | 2.003068307 | 9.74E-06 | 0.000328 |
| 17916 Myo1f | myosin IF | 825.39288 | 324.4810804 | 1326.304676 | 3.999116326 | 1.999681247 | 4.87E-07 | 2.29E-05 |
| 74134 Cyp2s1 | cytochrome P450, family 2, subfamily s, polypeptide 1 | 76.189175 | 29.9 | | | | | |

| | | | | | | | | |
|------------------|---|-----------|-------------|-------------|--------------|-------------|----------|----------|
| 20322 Sord | sorbitol dehydrogenase | 129.42257 | 50.97433253 | 207.8708025 | 3.990284498 | 1.996491611 | 0.007766 | 0.078406 |
| 209334 Gen1 | GEN1, Holliday junction 5' flap endonuclease | 177.26586 | 69.82896721 | 284.7027461 | 3.989113558 | 1.996068193 | 0.000132 | 0.002949 |
| 12615 Cenpa | centromere protein A | 687.69341 | 272.6335201 | 1102.753302 | 3.978720603 | 1.992304593 | 1.63E-12 | 1.79E-10 |
| 56742 Psrc1 | proline/serine-rich coiled-coil 1 | 92.753136 | 37.2333788 | 148.2728931 | 3.929000079 | 1.974162197 | 0.00396 | 0.046694 |
| 258571 Olfr1033 | olfactory receptor 1033 | 366.98648 | 148.049947 | 585.9230064 | 3.89679617 | 1.96228847 | 5.36E-07 | 2.50E-05 |
| 50883 Chek2 | checkpoint kinase 2 | 155.10162 | 63.00025216 | 247.2029856 | 3.892000994 | 1.960512079 | 0.001295 | 0.018975 |
| 17063 Muc13 | mucin 13, epithelial transmembrane | 132.94304 | 54.32584736 | 211.5602369 | 3.883991458 | 1.957540028 | 0.01012 | 0.094753 |
| 15201 Hells | helicase, lymphoid specific | 507.25538 | 205.1104225 | 809.400332 | 3.882228695 | 1.956885107 | 6.25E-10 | 5.22E-08 |
| 74137 Nuak2 | NUAK family, SNF1-like kinase, 2 | 122.43624 | 49.65932071 | 195.2131654 | 3.860216637 | 1.948681814 | 0.004242 | 0.04922 |
| 212377 Mms2l | MMS22-like, DNA repair protein | 324.98614 | 130.5444306 | 519.4278557 | 3.856376101 | 1.94724576 | 1.64E-05 | 0.000515 |
| 108686 Ccdc88a | coiled coil domain containing 88A | 137.53746 | 55.85006821 | 219.2248599 | 3.856350507 | 1.947236185 | 0.002848 | 0.035835 |
| 74016 Phf19 | PHD finger protein 19 | 169.76903 | 69.08908024 | 270.4489813 | 3.851920451 | 1.945577909 | 0.000309 | 0.005871 |
| 17218 Mcm5 | minichromosome maintenance complex component 5 | 1631.6971 | 668.0807918 | 2595.313369 | 3.818020582 | 1.93282488 | 1.97E-14 | 2.74E-12 |
| 270152 Amica1 | adhesion molecule, interacts with CXADR antigen 1 | 179.85069 | 73.98052659 | 285.7208521 | 3.788509515 | 1.921630371 | 0.000185 | 0.003883 |
| 226255 Atml1 | attractin like 1 | 155.53714 | 64.3597109 | 246.7145639 | 3.779089744 | 1.91803878 | 0.003978 | 0.04682 |
| 381306 BC055324 | cDNA sequence BC055324 | 127.90777 | 52.64491971 | 203.170617 | 3.778474397 | 1.917803847 | 0.001456 | 0.020956 |
| 242705 E2f2 | E2F transcription factor 2 | 1708.1851 | 712.3781458 | 2703.992073 | 3.733660746 | 1.900590845 | 2.36E-15 | 3.70E-13 |
| 22352 Vim | vimentin | 11839.338 | 4947.690953 | 18730.98594 | 3.720014562 | 1.895308269 | 4.58E-16 | 7.78E-14 |
| 208836 Fanci | Fanconi anemia, complementation group I | 209.75287 | 87.92800424 | 331.577272 | 3.703897042 | 1.889043996 | 9.39E-05 | 0.002226 |
| 19075 Prim1 | DNA primase, p49 subunit | 372.54813 | 156.1178056 | 588.9784646 | 3.687639514 | 1.882697632 | 2.60E-07 | 1.33E-05 |
| 12580 Cdkn2c | cyclin-dependent kinase inhibitor 2C (p18, inhibits CDK4) | 270.80733 | 114.698761 | 426.9159013 | 3.680348918 | 1.879842548 | 2.68E-05 | 0.000774 |
| 15354 Hmgb3 | high mobility group box 3 | 538.13034 | 226.6395278 | 849.6211607 | 3.671836121 | 1.876501671 | 4.50E-08 | 2.67E-06 |
| 16398 Itga2 | integrin alpha 2 | 84.049875 | 35.41642529 | 132.6833238 | 3.666454115 | 1.874385484 | 0.009184 | 0.088381 |
| 13361 Dhfr | dihydrofolate reductase | 268.3861 | 114.1079255 | 422.6642771 | 3.656713563 | 1.870547622 | 4.26E-05 | 0.001158 |
| 320148 B430306N1 | RIKEN cDNA B430306N03 gene | 141.6387 | 59.98860202 | 223.2888071 | 3.645953734 | 1.866296254 | 0.0015 | 0.021418 |
| 106344 Rfc4 | replication factor C (activator) 4 | 246.03046 | 104.3878755 | 387.6730378 | 3.639601049 | 1.863780319 | 4.35E-05 | 0.00118 |
| 231821 Adap1 | ArfGAP with dual PH domains 1 | 666.2086 | 284.7326229 | 1047.684574 | 3.626179089 | 1.858450178 | 3.39E-10 | 2.97E-08 |
| 12142 Prdm1 | PR domain containing 1, with ZNF domain | 547.10374 | 232.5977002 | 861.6097736 | 3.618782345 | 1.855504338 | 1.96E-09 | 1.51E-07 |
| 20970 Sdc3 | syndecan 3 | 295.02486 | 125.6660098 | 464.3837175 | 3.59838567 | 1.847349821 | 0.000128 | 0.002886 |
| 77891 Ube2s | ubiquitin-conjugating enzyme E2S | 890.80724 | 383.4474032 | 1398.167073 | 3.58716198 | 1.842842892 | 2.67E-11 | 2.62E-09 |
| 14782 Gsr | glutathione reductase | 555.65258 | 237.753143 | 873.5520125 | 3.582079847 | 1.840797496 | 1.04E-05 | 0.000345 |
| 16592 Fabp5 | fatty acid binding protein 5, epidermal | 377.54526 | 162.6012858 | 592.4982417 | 3.581660367 | 1.84062854 | 3.11E-06 | 0.000119 |
| 20873 Plk4 | polo-like kinase 4 | 545.60587 | 235.3844306 | 855.8273128 | 3.578938444 | 1.83953173 | 2.97E-09 | 2.25E-07 |
| 230098 Arhgef39 | Rho guanine nucleotide exchange factor (GEF) 39 | 84.549237 | 36.55364943 | 132.5484255 | 3.573350609 | 1.837277475 | 0.010481 | 0.097579 |
| 22330 Vcl | vinculin | 297.57197 | 127.6163041 | 467.5276356 | 3.569382198 | 1.835674389 | 7.18E-05 | 0.001797 |
| 20181 Rxra | retinoid X receptor alpha | 847.03559 | 366.0909383 | 1327.980244 | 3.559958846 | 1.831860563 | 7.28E-13 | 8.51E-11 |
| 227613 Tubb4b | tubulin, beta 4B class IVB | 1808.2789 | 781.558805 | 2834.998988 | 3.559140857 | 1.83152903 | 2.89E-12 | 3.11E-10 |
| 214901 Chtf18 | CTF18, chromosome transmission fidelity factor 18 | 177.29634 | 77.55427602 | 277.0384036 | 3.530367272 | 1.819818278 | 0.000892 | 0.014073 |
| 110454 Ly6a | lymphocyte antigen 6 complex, locus A | 2404.9327 | 1051.397539 | 3758.467896 | 3.520201499 | 1.815658012 | 6.44E-15 | 9.50E-13 |
| 27401 Skp2 | S-phase kinase-associated protein 2 (p45) | 88.70758 | 38.93270223 | 138.482458 | 3.506979791 | 1.810229117 | 0.007867 | 0.079101 |
| 69071 Tmem97 | transmembrane protein 97 | 170.83236 | 74.57136212 | 267.0933577 | 3.505183375 | 1.809489921 | 0.001033 | 0.015907 |
| 12367 Casp3 | caspase 3 | 1327.4692 | 582.2781844 | 2072.660192 | 3.5301300875 | 1.808632532 | 1.56E-12 | 1.72E-10 |
| 71729 Rgs12 | regulator of G-protein signaling 12 | 168.14426 | 74.00926284 | 262.2792633 | 3.496413464 | 1.805875799 | 0.000742 | 0.011993 |
| 19141 Lgmn | legumain | 190.3358 | 84.23125453 | 296.4403541 | 3.473321219 | 1.79631584 | 0.006143 | 0.066032 |
| 381318 Nsl1 | NSL1, MIS12 kinetochore complex component | 154.22088 | 68.8381094 | 239.6036537 | 3.41723208 | 1.772828231 | 0.001924 | 0.026123 |
| 70454 Cenpl | centromere protein L | 199.22136 | 89.12538598 | 309.3173322 | 3.396914312 | 1.764242826 | 0.000443 | 0.007894 |
| 79456 Recql4 | RecQ protein-like 4 | 118.81834 | 53.04494199 | 184.5917404 | 3.379086704 | 1.756633369 | 0.006024 | 0.065132 |
| 17215 Mcm3 | minichromosome maintenance complex component 3 | 1633.5953 | 736.7855605 | 2530.405208 | 3.376962214 | 1.755726037 | 1.13E-12 | 1.28E-10 |
| 18030 Nfil3 | nuclear factor, interleukin 3, regulated | 259.55356 | 116.7563449 | 402.3507745 | 3.355684008 | 1.746606869 | 0.000563 | 0.009623 |
| 67141 Fbxo5 | F-box protein 5 | 357.9489 | 162.1037654 | 553.7670247 | 3.349584627 | 1.743982202 | 6.03E-07 | 2.79E-05 |
| 27361 Msrb1 | methionine sulfoxide reductase B1 | 353.90167 | 160.7713067 | 547.0320296 | 3.320925746 | 1.731585466 | 0.000318 | 0.005981 |
| 16776 Lama5 | laminin, alpha 5 | 207.38897 | 95.41805289 | 319.359894 | 3.309838138 | 1.726760666 | 0.000396 | 0.007189 |
| 17872 Ppp1r15a | protein phosphatase 1, regulatory (inhibitor) subunit 15A | 329.50271 | 150.9152308 | 508.0901911 | 3.294844149 | 1.720210225 | 0.000118 | 0.002691 |
| 12144 Blm | Bloom syndrome, RecQ helicase-like | 352.90923 | 161.3203804 | 544.4980775 | 3.290466276 | 1.718292036 | 5.60E-06 | 0.0002 |
| 13010 Cst3 | cystatin C | 878.54367 | 403.9515442 | 1353.135796 | 3.276381534 | 1.712103368 | 0.002041 | 0.027397 |
| 22042 Tfrc | transferrin receptor | 1832.0975 | 846.5043812 | 2817.690624 | 3.260378032 | 1.705039251 | 2.38E-10 | 2.11E-08 |
| 22518 Rbbp8 | retinoblastoma binding protein 8 | 391.37075 | 181.5291036 | 601.212392 | 3.254985305 | 1.70265103 | 2.03E-06 | 8.13E-05 |
| 12925 Crip1 | cysteine-rich protein 1 (intestinal) | 2001.2172 | 932.3954825 | 3070.038991 | 3.242681365 | 1.697187267 | 5.91E-13 | 7.01E-11 |
| 16878 Lif | leukemia inhibitory factor | 311.7335 | 145.3597658 | 478.1072369 | 3.239365061 | 1.695711062 | 5.47E-06 | 0.000197 |
| 26912 Gcat | glycine C-acetyltransferase (2-amino-3-ketobutyrate-coenzyme A thiolesterase) | 127.50298 | 59.4996859 | 195.5062745 | 3.231387145 | 1.692153607 | 0.006668 | 0.069858 |
| 110956 D17H6S56I | DNA segment, Chr 17, human D6S56E 5 | 3197.5848 | 1494.467629 | 4900.702039 | 3.223122376 | 1.688458966 | 3.85E-13 | 4.69E-11 |
| 14229 Fkbp5 | FK506 binding protein 5 | 1898.6069 | 895.3138402 | 2901.900035 | 3.189619979 | 1.673384547 | 2.04E-12 | 2.23E-10 |
| 17988 Ndrg1 | N-myc downstream regulated gene 1 | 439.23935 | 208.4489118 | 670.0297894 | 3.169411661 | 1.664215057 | 3.95E-07 | 1.92E-05 |
| 1.01E+08 Kifc1 | kinesin family member C1 | 288.62351 | 136.0527636 | 441.192554 | 3.169025763 | 1.664039388 | 5.23E-05 | 0.001373 |
| 21877 Tk1 | thymidine kinase 1 | 455.78309 | 215.4554145 | 696.1107622 | 3.1619715 | 1.660824478 | 1.99E-06 | 8.02E-05 |
| 17118 Marcks | myristoylated alanine rich protein kinase C substrate | 277.77852 | 132.5338016 | 423.0232383 | 3.122631892 | 1.642762509 | 0.003319 | 0.040336 |
| 20198 S100a4 | S100 calcium binding protein A4 | 343.43271 | 164.7676535 | 521.8877591 | 3.121272514 | 1.642344615 | 0.000159 | 0.003442 |
| 22171 Tyms | thymidylate synthase | 346.89436 | 165.82483 | 527.9638899 | 3.113147796 | 1.63837407 | 2.70E-05 | 0.000779 |
| 15277 Hk2 | hexokinase 2 | 279.33372 | 135.0749314 | 423.592526 | 3.094317105 | 1.626921051 | 5.43E-05 | 0.001413 |
| 54353 Skap2 | src family associated phosphoprotein 2 | 232.90958 | 113.4465919 | 352.372577 | 3.024673045 | 1.596779201 | 0.002688 | 0.034262 |
| 12337 Capn5 | calpain 5 | 116.94999 | 57.15205445 | 176.7479173 | 3.022433658 | 1.595710673 | 0.010546 | 0.098067 |
| 70686 Dusp16 | dual specificity phosphatase 16 | 171.75713 | 83.8653387 | 259.6489171 | 3.021671678 | 1.595346912 | 0.006676 | 0.069858 |
| 218973 Wdhhd1 | WD repeat and HMG-box DNA binding protein 1 | 608.95616 | 298.9364416 | 918.9758779 | 3.014196678 | 1.591773557 | 2.27E-08 | 1.46E-06 |
| 57765 Tbx21 | T-box 21 | 214.81973 | 107.1198185 | 322.5196441 | 2.991300832 | 1.580773008 | 0.005992 | 0.064842 |
| 58207 Slc43a3 | solute carrier family 43, member 3 | 302.52033 | 149.4538527 | 455.586799 | 2.97798587 | 1.574338709 | 0.000207 | 0.004229 |
| 15900 Ifr8 | interferon regulatory factor 8 | 829.23713 | 412.2627183 | 1246.211539 | 2.973630441 | 1.572225362 | 4.73E-10 | 4.04E-08 |
| 110074 Dut | deoxyuridine triphosphatase | 687.1033 | 342.478198 | 1031.728408 | 2.955616464 | 1.56345907 | 3.54E-08 | 2.17E-06 |
| 17356 Afad1 | afadin, adherens junction formation factor | 164.80902 | 82.7411013 | 246.8606977 | 2.945646766 | 1.558584437 | 0.003851 | 0.04559 |
| 17082 Il1rl1 | interleukin 1 receptor-like 1 | 693.9502 | 346.4312887 | 1041.469104 | 2.936783491 | 1.554236909 | 2.96E-07 | 1.47E-05 |
| 16149 Cd74 | CD74 antigen (invariant polypeptide of major histocompatibility complex) | 981.09175 | 490.5124343 | 1471.671068 | 2.928583776 | 1.550203165 | 0.002197 | 0.02899 |
| 14605 Tsc22d3 | TSC22 domain family, member 3 | 2604.2699 | 1315.463944 | 3893.075829 | 2.925768334 | 1.54881554 | 4.21E-06 | 0.000155 |

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|----------------|---|------------|-------------|--------------|-------------|-------------|----------|----------|
| 107823 Whsc1 | Wolf-Hirschhorn syndrome candidate 1 (human) | 1777.1671 | 895.5881771 | 2658.746006 | 2.923942717 | 1.547915048 | 8.02E-11 | 7.51E-09 |
| 170942 Erd1 | erythroid differentiation regulator 1 | 3218.1952 | 1629.393509 | 4806.99683 | 2.922252081 | 1.547080634 | 0.000316 | 0.005955 |
| 22146 Tuba1c | tubulin, alpha 1C | 281.1794 | 141.592518 | 420.7662829 | 2.915340537 | 1.543664413 | 0.00012 | 0.00272 |
| 50887 Hmgn5 | high-mobility group nucleosome binding domain 5 | 497.33152 | 251.1645725 | 743.4984739 | 2.914402122 | 1.543199951 | 6.56E-07 | 3.00E-05 |
| 56199 Abcb10 | ATP-binding cassette, sub-family B (MDR/TAP), member 10 | 183.10447 | 92.25735131 | 273.9515802 | 2.906232608 | 1.539150177 | 0.004636 | 0.05278 |
| 106582 Nrm | nurim (nuclear envelope membrane protein) | 355.83591 | 180.2140918 | 531.4577313 | 2.903080028 | 1.537584343 | 1.23E-05 | 0.000398 |
| 72776 Sass6 | SAS-6 centriolar assembly protein | 203.15826 | 102.6598158 | 303.6566963 | 2.889188599 | 1.530664383 | 0.003594 | 0.043106 |
| 66131 Tipin | timeless interacting protein | 388.44521 | 197.7510296 | 579.1393935 | 2.881584402 | 1.526862277 | 6.07E-05 | 0.001563 |
| 17969 Ncf1 | neutrophil cytosolic factor 1 | 666.13732 | 337.989459 | 994.2851814 | 2.880373303 | 1.5262558 | 2.89E-08 | 1.81E-06 |
| 16911 Lmo4 | LIM domain only 4 | 350.61282 | 179.0611157 | 522.1644753 | 2.867784435 | 1.519936584 | 5.23E-05 | 0.001373 |
| 11596 Ager | advanced glycosylation end product-specific receptor | 243.74682 | 125.0307274 | 362.4629152 | 2.860215691 | 1.516123946 | 0.00666 | 0.069858 |
| 237877 Atad5 | ATPase family, AAA domain containing 5 | 479.27778 | 247.8575046 | 710.6980574 | 2.841894497 | 1.493080851 | 9.14E-07 | 4.07E-05 |
| 14841 Gsg2 | germ cell associated 2, haspin | 351.15701 | 181.7383126 | 520.5757026 | 2.809648199 | 1.490389499 | 2.13E-05 | 0.000638 |
| 15902 Id2 | inhibitor of DNA binding 2 | 420.48458 | 218.8644018 | 622.1047578 | 2.79621282 | 1.483474168 | 0.000126 | 0.002837 |
| 21991 Tpi1 | triosephosphate isomerase 1 | 1298.9692 | 678.7472527 | 1919.191056 | 2.779382085 | 1.474764177 | 1.30E-08 | 8.62E-07 |
| 22390 Wee1 | WEE 1 homolog (S. pombe) | 212.63167 | 111.2870886 | 313.9762549 | 2.777213572 | 1.473638127 | 0.001968 | 0.026601 |
| 11502 Adam9 | a disintegrin and metalloproteinase domain 9 (meltrin gamma) | 317.50073 | 167.32797 | 467.6734889 | 2.767761112 | 1.468719428 | 0.000114 | 0.002632 |
| 110749 Chaf1b | chromatin assembly factor 1, subunit B (p60) | 252.3465 | 131.0912043 | 372.7917921 | 2.762916026 | 1.466191715 | 0.000611 | 0.010266 |
| 217340 Rnf157 | ring finger protein 157 | 173.4802 | 91.16457409 | 255.795834 | 2.753015929 | 1.461012957 | 0.004714 | 0.053588 |
| 319876 Cobl1 | Cobl-like 1 | 148.68022 | 78.10334973 | 219.2570848 | 2.749643092 | 1.459244367 | 0.010331 | 0.096429 |
| 22143 Tuba1b | tubulin, alpha 1B | 1755.2759 | 932.863177 | 2577.68843 | 2.715477024 | 1.441205656 | 2.84E-07 | 1.43E-05 |
| 19076 Prim2 | DNA primase, p58 subunit | 211.64576 | 112.5733641 | 310.718473 | 2.712221547 | 1.439475029 | 0.002122 | 0.028238 |
| 12393 Runx2 | runt related transcription factor 2 | 599.19885 | 319.3413483 | 879.0563547 | 2.704670992 | 1.435453109 | 2.46E-07 | 1.27E-05 |
| 269378 Ahcy | S-adenosylhomocysteine hydrolase | 435.90029 | 233.2433231 | 638.5572614 | 2.691956784 | 1.42865525 | 1.01E-05 | 0.000339 |
| 107272 Psat1 | phosphoserine aminotransferase 1 | 912.13216 | 486.3217982 | 1337.942524 | 2.69150474 | 1.428412966 | 4.46E-07 | 2.13E-05 |
| 12190 Brca2 | breast cancer 2, early onset | 440.68676 | 236.0798707 | 645.2936589 | 2.68267953 | 1.423674722 | 5.32E-05 | 0.001388 |
| 71435 Arhgap21 | Rho GTPase activating protein 21 | 187.6189 | 100.3252099 | 274.9125915 | 2.680996929 | 1.422769567 | 0.006072 | 0.065426 |
| 106618 Wdr90 | WD repeat domain 90 | 296.191 | 159.691555 | 432.6904461 | 2.668382622 | 1.415965551 | 0.000197 | 0.004076 |
| 15288 Hmbs | hydroxymethylbilane synthase | 287.70421 | 153.7701742 | 421.6382551 | 2.667852235 | 1.415678762 | 0.002848 | 0.035835 |
| 71643 Zgrf1 | zinc finger, GRF-type containing 1 | 256.29871 | 138.4291313 | 374.1682984 | 2.662700927 | 1.412890395 | 0.000814 | 0.012978 |
| 236266 Alms1 | Alstrom syndrome 1 | 260.16917 | 139.4828318 | 380.8555171 | 2.657477232 | 1.410057331 | 0.001879 | 0.025627 |
| 16975 Lrp8 | low density lipoprotein receptor-related protein 8, apolipoprotein B mRNA-binding protein-associated receptor | 254.32569 | 137.8225851 | 370.8287872 | 2.656515439 | 1.409535097 | 0.001011 | 0.01567 |
| 14056 Ezh2 | enhancer of zeste 2 polycomb repressive complex 2 subunit | 1199.8378 | 649.7725458 | 1749.903131 | 2.651377397 | 1.406742038 | 7.54E-09 | 5.35E-07 |
| 63953 Dusp10 | dual specificity phosphatase 10 | 524.66982 | 285.2269092 | 764.1127211 | 2.632080253 | 1.396203478 | 1.64E-05 | 0.000515 |
| 83921 Tmem2 | transmembrane protein 2 | 305.54403 | 166.3999549 | 444.6880969 | 2.630127709 | 1.395132853 | 0.000179 | 0.003785 |
| 238673 Zfp367 | zinc finger protein 367 | 314.88321 | 171.0848773 | 458.6815384 | 2.627593816 | 1.393742275 | 0.000142 | 0.003165 |
| 212073 Syne3 | spectrin repeat containing, nuclear envelope family member | 949.42969 | 516.0390772 | 1382.820312 | 2.626900319 | 1.393361457 | 8.17E-07 | 3.69E-05 |
| 56431 Dstrn | destrin | 423.60661 | 232.0562819 | 615.1569353 | 2.615554505 | 1.387116834 | 0.000487 | 0.008529 |
| 26397 Map2k3 | mitogen-activated protein kinase kinase 3 | 569.76816 | 310.8815994 | 828.720318 | 2.614763437 | 1.386522018 | 1.79E-06 | 7.27E-05 |
| 72151 Rfc5 | replication factor C (activator) 5 | 403.65559 | 221.59903 | 585.7121424 | 2.602799074 | 1.380063946 | 5.22E-05 | 0.001373 |
| 219072 Haus4 | HAUS augmin-like complex, subunit 4 | 293.95503 | 161.4667467 | 426.4433116 | 2.585413928 | 1.370395276 | 0.00041 | 0.007389 |
| 77744 Bora | bora, aurora kinase A activator | 275.36878 | 151.9792718 | 398.7582951 | 2.57646994 | 1.36539576 | 0.000711 | 0.011605 |
| 69263 Rfc3 | replication factor C (activator) 3 | 226.01637 | 124.837229 | 327.1955207 | 2.576123893 | 1.365201978 | 0.002145 | 0.028431 |
| 101565 Ccp110 | centriolar coiled coil protein 110 | 326.28399 | 179.9500954 | 472.6178852 | 2.572177652 | 1.362990288 | 0.000225 | 0.004541 |
| 100088 Rcc1 | regulator of chromosome condensation 1 | 565.06366 | 313.7387512 | 816.3885758 | 2.56055832 | 1.356458419 | 2.27E-06 | 8.94E-05 |
| 12305 Ddr1 | discoidin domain receptor family, member 1 | 300.88378 | 168.3605897 | 433.4069661 | 2.558860008 | 1.35551588 | 0.001636 | 0.023002 |
| 56336 B4galT5 | UDP-Gal:betaGlcNAc beta 1,4-galactosyltransferase, polypeptide chain 5 | 803.53075 | 446.8530479 | 1160.2048445 | 2.547258861 | 1.348945578 | 1.81E-07 | 9.47E-06 |
| 56722 Litaf | LITAF-induced TNF factor | 306.12067 | 170.1672027 | 442.0741436 | 2.546768091 | 1.348675794 | 0.001433 | 0.0207 |
| 226641 Atf6 | activating transcription factor 6 | 537.70041 | 299.2893319 | 776.114938 | 2.545936035 | 1.348196173 | 1.14E-05 | 0.000374 |
| 20937 Suv39h1 | suppressor of variegation 3-9 homolog 1 (Drosophila) | 602.25814 | 336.7893922 | 867.7688666 | 2.532974137 | 1.340832346 | 1.14E-06 | 4.90E-05 |
| 20778 Scarb1 | scavenger receptor class B, member 1 | 279.44668 | 156.0863843 | 402.8069712 | 2.524333071 | 1.335902278 | 0.007514 | 0.076439 |
| 23962 Oasl2 | 2'-5' oligoadenylate synthetase-like 2 | 218.78932 | 122.5758063 | 315.0028378 | 2.517902815 | 1.332222599 | 0.009754 | 0.092104 |
| 106581 Fam234a | family with sequence similarity 234, member A | 277.94912 | 156.5124577 | 399.385776 | 2.513038186 | 1.329432593 | 0.003778 | 0.044837 |
| 244745 Dpy19l1 | dpy-19-like 1 (C. elegans) | 534.32967 | 300.0048262 | 768.6588568 | 2.509279965 | 1.327273444 | 2.76E-05 | 0.000791 |
| 14156 Fen1 | flap structure specific endonuclease 1 | 550.16333 | 311.0773062 | 789.2493561 | 2.499846688 | 1.321839619 | 9.63E-06 | 0.000325 |
| 98238 Lrrc59 | leucine rich repeat containing 59 | 965.20685 | 547.1284407 | 1383.285266 | 2.490315809 | 1.316328709 | 1.21E-07 | 6.61E-06 |
| 67153 Rnaseh2b | ribonuclease H2, subunit B | 373.07979 | 211.1992506 | 534.9603302 | 2.483920726 | 1.312619131 | 0.000204 | 0.004197 |
| 67037 Pmrf1 | polyamine-modulated factor 1 | 296.83611 | 167.8640182 | 425.8081952 | 2.452369575 | 1.31171792 | 0.00095 | 0.014872 |
| 66616 Snx9 | sorting nexin 9 | 225.54557 | 128.839737 | 322.2514049 | 2.470871924 | 1.305020231 | 0.004101 | 0.047884 |
| 13032 Ctsc | cathepsin C | 1357.0088 | 773.8177855 | 1940.199855 | 2.450784054 | 1.292343369 | 0.001179 | 0.017604 |
| 29876 Clc4 | chloride intracellular channel 4 (mitochondrial) | 656.09054 | 377.8762275 | 934.3048434 | 2.436676425 | 1.284914683 | 2.74E-06 | 0.000106 |
| 12874 Cpd | carboxypeptidase D | 602.27145 | 345.2285368 | 859.3143602 | 2.431384753 | 1.28177821 | 0.001108 | 0.016878 |
| 66934 Dsn1 | DSN1 homolog, MIS12 kinetochore complex component | 227.54987 | 130.9992403 | 324.1005008 | 2.424780057 | 1.277853891 | 0.004178 | 0.048642 |
| 17863 Myb | myeloblastosis oncogene | 1291.9261 | 746.7148195 | 1837.137439 | 2.418003485 | 1.273816324 | 4.61E-07 | 2.19E-05 |
| 13433 Dnm1t1 | DNM1 methyltransferase (cytosine-5) 1 | 3367.30898 | 1948.721831 | 4785.886062 | 2.415592028 | 1.272376817 | 1.47E-08 | 9.66E-07 |
| 17220 Mcm7 | minichromosome maintenance complex component 7 | 1455.0274 | 840.8964139 | 2069.158435 | 2.414372309 | 1.271648164 | 1.25E-06 | 5.33E-05 |
| 77048 Cep83 | centrosomal protein 83 | 555.5749 | 320.2290416 | 790.2267603 | 2.412599606 | 1.270588506 | 1.56E-05 | 0.000493 |
| 13660 Ehd1 | EH-domain containing 1 | 463.28859 | 269.6609467 | 656.916236 | 2.405801386 | 1.266517544 | 0.000117 | 0.002679 |
| 16407 Itgaf1 | integrin alpha E, epithelial-associated | 1299.8021 | 753.7607989 | 1845.843355 | 2.402276936 | 1.264402475 | 8.59E-07 | 3.85E-05 |
| 13496 Arid3a | AT rich interactive domain 3A (BRIGHT-like) | 367.24637 | 213.1261788 | 521.3665517 | 2.377543853 | 1.249471951 | 0.005468 | 0.060239 |
| 19087 Prkar2a | protein kinase, cAMP dependent regulatory, type II alpha | 294.74235 | 172.2535228 | 417.2311787 | 2.369824529 | 1.24478024 | 0.00137 | 0.019915 |
| 22142 Tuba1a | tubulin, alpha 1A | 578.16166 | 340.0650388 | 816.2582739 | 2.368882317 | 1.244206529 | 2.56E-05 | 0.000747 |
| 70472 Atad2 | ATPase family, AAA domain containing 2 | 1395.7841 | 819.605254 | 1971.962968 | 2.361653213 | 1.239797134 | 1.08E-06 | 4.72E-05 |
| 76108 Rap2a | RAS related protein 2a | 211.81358 | 124.8659653 | 298.7611983 | 2.354048922 | 1.235144303 | 0.008328 | 0.082536 |
| 17101 Lyst | lysosomal trafficking regulator | 1039.4154 | 613.9564981 | 1464.87421 | 2.337511371 | 1.224973383 | 4.56E-06 | 0.000166 |
| 11512 Adcy6 | adenylyl cyclase 6 | 1292.63 | 772.3824585 | 1812.877607 | 2.31994303 | 1.214089378 | 0.00038 | 0.006929 |
| 74732 Stx11 | syntaxis 11 | 511.98798 | 303.9351776 | 720.0407727 | 2.312348494 | 1.209358843 | 0.000286 | 0.005551 |
| 11630 Aim1 | absent in melanoma 1 | 2104.4816 | 1258.63793 | 2950.63798 | 2.309865415 | 1.207808795 | 1.01E-05 | 0.000337 |
| 233876 Hirip3 | HIRA interacting protein 3 | 402.01276 | 240.0850637 | 563.9404944 | 2.304546822 | 1.20448308 | 0.000408 | 0.007376 |
| 66471 Anp32e | acidic (leucine-rich) nuclear phosphoprotein 32 family, meml | 2602.1173 | 1561.708334 | 3642.526195 | 2.290142791 | 1.195437553 | 2.05E-06 | 8.17E-05 |
| 18969 Pola2 | polymerase (DNA directed), alpha 2 | 570.67458 | 344.1016532 | 797.2475095 | 2.282096934 | | | |

| | | | | | | | | |
|----------------|---|-----------|-------------|--------------|-------------|-------------|----------|----------|
| 80750 N4bp1 | NEDD4 binding protein 1 | 1484.3207 | 892.2841942 | 2076.357262 | 2.281097313 | 1.189727994 | 5.24E-06 | 0.000189 |
| 53381 Prdx4 | peroxiredoxin 4 | 272.61793 | 163.7856419 | 381.4502122 | 2.279329609 | 1.188609565 | 0.005457 | 0.060165 |
| 12516 Cd7 | CD7 antigen | 247.99478 | 149.2787501 | 346.7108192 | 2.27597188 | 1.186482733 | 0.010304 | 0.096302 |
| 20492 Slbp | stem-loop binding protein | 876.17543 | 527.9262859 | 1224.424575 | 2.273124367 | 1.184676619 | 1.33E-05 | 0.000426 |
| 18538 PcnA | proliferating cell nuclear antigen | 2467.3017 | 1491.827265 | 3442.776213 | 2.264730317 | 1.179339265 | 2.83E-06 | 0.00011 |
| 102566 Ano10 | anoctamin 10 | 369.95292 | 223.6880352 | 516.2178049 | 2.263008373 | 1.178241923 | 0.001494 | 0.021361 |
| 16728 L1cam | L1 cell adhesion molecule | 811.25935 | 492.0653914 | 1130.453309 | 2.262905449 | 1.178176305 | 1.20E-05 | 0.000392 |
| 140500 Acap3 | ArfGAP with coiled-coil, ankyrin repeat and PH domains 3 | 409.91848 | 248.5659702 | 571.270981 | 2.255830355 | 1.173658577 | 0.000487 | 0.008529 |
| 17216 Mcm2 | minichromosome maintenance complex component 2 | 1265.9431 | 768.1604011 | 1763.725849 | 2.252316258 | 1.171409417 | 3.41E-06 | 0.00013 |
| 75423 Arl5a | ADP-ribosylation factor-like 5A | 2727.9661 | 1664.12792 | 3791.80423 | 2.243529853 | 1.165770381 | 1.31E-06 | 5.55E-05 |
| 18648 Pgam1 | phosphoglycerate mutase 1 | 1339.0773 | 816.4836291 | 1861.670902 | 2.239025227 | 1.162870783 | 1.51E-05 | 0.000477 |
| 17119 Mxd1 | MAX dimerization protein 1 | 1654.9803 | 1013.421988 | 2296.538645 | 2.238440413 | 1.162493915 | 0.001754 | 0.024284 |
| 80905 Polh | polymerase (DNA directed), eta (RAD 30 related) | 310.13912 | 189.1839144 | 431.0943184 | 2.235081028 | 1.160327134 | 0.002328 | 0.030333 |
| 75786 Cknap5 | cytoskeleton associated protein 5 | 1886.9256 | 1154.551242 | 2619.229914 | 2.233941419 | 1.159591354 | 1.84E-06 | 7.45E-05 |
| 69554 Klhd2 | kelch domain containing 2 | 659.82568 | 402.9898226 | 916.6615473 | 2.233815964 | 1.159510333 | 0.000163 | 0.003517 |
| 14381 G6pdx | glucose-6-phosphate dehydrogenase X-linked | 750.6984 | 457.6294835 | 1043.767322 | 2.227267103 | 1.155274582 | 0.00043 | 0.007722 |
| 235559 Topbp1 | topoisomerase (DNA) II binding protein 1 | 2027.1439 | 1242.626012 | 2811.661709 | 2.223924342 | 1.153107708 | 7.27E-07 | 3.31E-05 |
| 23970 Pacsin2 | protein kinase C and casein kinase substrate in neurons 2 | 623.0273 | 382.0906296 | 863.9639645 | 2.222141288 | 1.151950549 | 2.57E-05 | 0.000748 |
| 11841 Arf2 | ADP-ribosylation factor 2 | 325.15679 | 199.8503753 | 450.4632026 | 2.217808659 | 1.149134903 | 0.001514 | 0.021581 |
| 52009 Hn1l | hematological and neurological expressed 1-like | 425.02428 | 261.290015 | 588.7585445 | 2.204300651 | 1.140321011 | 0.000953 | 0.014902 |
| 13026 Pcty1a | phosphate cytidylyltransferase 1, choline, alpha isoform | 347.70427 | 214.0672195 | 481.341316 | 2.199881717 | 1.137425955 | 0.00194 | 0.026315 |
| 17219 Mcm6 | minichromosome maintenance complex component 6 | 2545.1621 | 1571.888564 | 3518.43572 | 2.198288826 | 1.13638095 | 4.04E-06 | 0.00015 |
| 72310 Klg7 | natural killer cell group 7 sequence | 267.85181 | 166.1620096 | 369.5416005 | 2.197701844 | 1.13595673 | 0.006042 | 0.065284 |
| 56452 Orc6 | origin recognition complex, subunit 6 | 256.98989 | 159.4980567 | 354.4817157 | 2.190154876 | 1.131032893 | 0.008093 | 0.080861 |
| 50927 Nasp | nuclear autoantigenic sperm protein (histone-binding) | 1065.2233 | 660.2692743 | 1470.177287 | 2.185237908 | 1.127790355 | 5.20E-06 | 0.000188 |
| 73338 Itprpl1 | inositol 1,4,5-triphosphate receptor interacting protein-like 1 | 604.82264 | 376.9508975 | 832.6943846 | 2.173131134 | 1.119775234 | 7.68E-05 | 0.001893 |
| 56449 Ybx3 | Y box protein 3 | 1256.1927 | 782.0293254 | 1730.356169 | 2.171115708 | 1.118436615 | 4.48E-05 | 0.001204 |
| 14958 H1f0 | H1 histone family, member 0 | 826.11191 | 516.1172307 | 1136.10659 | 2.167394469 | 1.11596175 | 7.40E-06 | 0.000257 |
| 21917 Tmpo | thymopoietin | 3773.0233 | 2353.073798 | 5192.972733 | 2.166402668 | 1.115301421 | 3.28E-06 | 0.000126 |
| 19891 Rpa2 | replication protein A2 | 523.29555 | 326.9333163 | 719.6577813 | 2.164739678 | 1.114193543 | 0.000171 | 0.003651 |
| 15107 Hadh | hydroxyacyl-Coenzyme A dehydrogenase | 769.63176 | 481.2839856 | 1057.979543 | 2.152506774 | 1.106017778 | 4.13E-05 | 0.001129 |
| 212307 Mapre2 | microtubule-associated protein, RP/EB family, member 2 | 887.4652 | 525.7667826 | 1149.163609 | 2.147477881 | 1.102643943 | 1.09E-05 | 0.00036 |
| 21781 Tfcp1 | transcription factor Dp 1 | 1316.5298 | 827.011779 | 1806.047901 | 2.141100449 | 1.098352481 | 2.47E-05 | 0.000728 |
| 21853 Timeless | timeless circadian clock 1 | 686.01188 | 432.0741043 | 939.9496473 | 2.137750008 | 1.096093151 | 7.60E-05 | 0.001878 |
| 66148 Dnajc15 | DnaJ heat shock protein family (Hsp40) member C15 | 273.98449 | 172.4730723 | 375.495064 | 2.137748331 | 1.09609202 | 0.00621 | 0.066504 |
| 21346 Tagln2 | transgelin 2 | 2497.7844 | 1575.755046 | 3419.813727 | 2.135278816 | 1.094424463 | 4.28E-06 | 9.72E-05 |
| 20195 S100a11 | S100 calcium binding protein A11 | 1022.3257 | 643.4538277 | 1401.197643 | 2.133607437 | 1.093294759 | 0.000193 | 0.004009 |
| 66390 Slmo2 | slowmo homolog 2 (Drosophila) | 537.33737 | 337.9607228 | 736.7140196 | 2.130542342 | 1.091220724 | 0.001109 | 0.016878 |
| 22375 Wars | tryptophanyl-tRNA synthetase | 1205.3913 | 763.3865848 | 1647.396111 | 2.125384923 | 1.087724148 | 2.22E-05 | 0.000661 |
| 21847 Klf10 | Kruppel-like factor 10 | 388.42428 | 245.9202359 | 530.9283274 | 2.12328088 | 1.086295232 | 0.001145 | 0.017238 |
| 217344 Rhbdf2 | rhomboid 5 homolog 2 | 280.57981 | 178.4389001 | 382.7207255 | 2.115930014 | 1.08129191 | 0.010148 | 0.095028 |
| 18950 Pnp | purine-nucleoside phosphorylase | 433.5155 | 273.924808 | 593.1085262 | 2.114926629 | 1.080607614 | 0.008169 | 0.081454 |
| 16784 Lamp2 | lysosomal-associated membrane protein 2 | 901.24838 | 570.6837084 | 1231.813043 | 2.113616495 | 1.079713631 | 0.001133 | 0.017095 |
| 268930 Pkmyt1 | protein kinase, membrane associated tyrosine/threonine 1 | 346.61616 | 220.0200217 | 473.2122998 | 2.113090687 | 1.079354684 | 0.001792 | 0.024739 |
| 227753 Gsn | gelsolin | 390.13686 | 248.8403071 | 531.4334224 | 2.11179072 | 1.07846687 | 0.004491 | 0.05154 |
| 12399 Runx3 | runt related transcription factor 3 | 721.48306 | 459.5717224 | 983.3943953 | 2.109688365 | 1.077029905 | 4.63E-05 | 0.001242 |
| 16828 Ldha | lactate dehydrogenase A | 6035.7641 | 3862.756784 | 8208.771462 | 2.09013769 | 1.063597985 | 1.43E-06 | 5.98E-05 |
| 102141 Snx25 | sorting nexin 25 | 463.949 | 296.8999836 | 630.9980704 | 2.08691792 | 1.06137386 | 0.001379 | 0.019998 |
| 22154 Tubb5 | tubulin, beta 5 class I | 10392.385 | 6654.074753 | 14130.69608 | 2.086811626 | 1.061300376 | 2.09E-06 | 8.29E-05 |
| 22166 Txn1 | thioredoxin 1 | 1272.4479 | 816.1280537 | 1728.67676 | 2.08072536 | 1.057086553 | 7.43E-05 | 0.001844 |
| 21929 Tnfafp3 | tumor necrosis factor, alpha-induced protein 3 | 1711.9301 | 1100.651868 | 2323.208361 | 2.078376201 | 1.055456816 | 2.99E-05 | 0.000848 |
| 15370 Nr4a1 | nuclear receptor subfamily 4, group A, member 1 | 1483.9081 | 956.6435052 | 2011.172765 | 2.067127013 | 1.047627037 | 1.24E-05 | 0.0004 |
| 14433 Gapdh | glyceraldehyde-3-phosphate dehydrogenase | 3737.581 | 2412.437458 | 5062.724443 | 2.061092012 | 1.043408912 | 8.20E-06 | 0.00028 |
| 16364 Irf4 | interferon regulatory factor 4 | 1165.7886 | 753.3396957 | 1578.237547 | 2.057913644 | 1.04182444 | 1.48E-05 | 0.00047 |
| 14469 Gbp2 | guanylate binding protein 2 | 2767.0657 | 1792.533528 | 3741.597934 | 2.056910177 | 1.040478795 | 1.42E-05 | 0.000454 |
| 18655 Pgk1 | phosphoglycerate kinase 1 | 3404.7855 | 2203.26397 | 4606.306935 | 2.055406256 | 1.039423574 | 8.44E-06 | 0.000287 |
| 15519 Hsp90aa1 | heat shock protein 90, alpha (cytosolic), class A member 1 | 6274.6551 | 4059.445258 | 8489.864993 | 2.054596082 | 1.038854799 | 0.000107 | 0.002494 |
| 234736 Rfwd3 | ring finger and WD repeat domain 3 | 1356.0231 | 877.3768802 | 1834.6693933 | 2.03591285 | 1.038149079 | 2.73E-05 | 0.000784 |
| 56524 Mpp6 | membrane protein, palmitoylated 6 (MAGUK p55 subfamily) | 391.36817 | 253.6325191 | 529.1038209 | 2.02917682 | 1.037675779 | 0.001864 | 0.025517 |
| 188242 Plp2 | proteolipid protein 2 | 869.43942 | 563.1622384 | 1175.716611 | 2.015868689 | 1.036938407 | 3.88E-05 | 0.001068 |
| 63986 Gmfg | glia maturation factor, gamma | 1118.4541 | 726.729607 | 1510.185288 | 2.046526189 | 1.033177129 | 1.72E-05 | 0.000532 |
| 17217 Mcm4 | minichromosome maintenance complex component 4 | 1801.1263 | 1169.254717 | 2432.997856 | 2.024903503 | 1.03062106 | 1.69E-05 | 0.000527 |
| 12018 Bak1 | BCL2-antagonist/killer 1 | 743.31018 | 484.6301302 | 1001.990226 | 2.034580723 | 1.024731521 | 6.16E-05 | 0.001583 |
| 381290 Atpb2a | ATPase, Ca ⁺⁺ transporting, plasma membrane 4 | 1296.7653 | 846.3890363 | 1747.141642 | 2.032144429 | 1.023002942 | 1.73E-05 | 0.000534 |
| 12530 Cdc25a | cell division cycle 25A | 339.75224 | 221.7350558 | 457.7694253 | 2.022405281 | 1.016072136 | 0.004989 | 0.055935 |
| 15258 Hipk2 | homeodomain interacting protein kinase 2 | 642.7126 | 420.3619982 | 865.0631937 | 2.020590105 | 1.014776688 | 0.000146 | 0.003233 |
| 52398 11-Sep | septin 11 | 1325.0739 | 867.9495629 | 1782.198172 | 2.019058442 | 1.01363267 | 2.01E-05 | 0.000609 |
| 68816 Ppil1 | peptidylprolyl isomerase (cyclophilin)-like 1 | 395.12448 | 258.7174638 | 531.5314994 | 2.010752795 | 1.007735726 | 0.007195 | 0.074117 |
| 26364 Adgre5 | adhesion G protein-coupled receptor E5 | 8478.692 | 5581.446211 | 1137.539789 | 2.009682735 | 1.006967764 | 0.00011 | 0.025554 |
| 231506 Lin54 | lin-54 homolog (C. elegans) | 417.97404 | 274.7773127 | 561.1707635 | 2.009159461 | 1.006592071 | 0.001804 | 0.024831 |
| 17318 Mid1 | midline 1 | 618.37041 | 408.2418146 | 828.4990136 | 2.006415656 | 1.004620511 | 0.002802 | 0.035466 |
| 72749 Tonsl | tonsko-like, DNA repair protein | 368.8343 | 243.0105051 | 494.6580979 | 2.002473202 | 1.001782936 | 0.00297 | 0.036953 |
| 11983 Atpf1 | ATPase inhibitory factor 1 | 311.01333 | 204.6241915 | 417.4024628 | 2.000659493 | 1.000475645 | 0.008082 | 0.080808 |
| 22780 Ikzf3 | IKAROS family zinc finger 3 | 4198.7251 | 273.148434 | 5624.301726 | 2.000413265 | 1.000298077 | 0.000507 | 0.008789 |
| 18226 Nup62 | nucleoporin 62 | 720.2995 | 473.6893324 | 966.9096669 | 1.99722938 | 0.998428726 | 0.000309 | 0.005871 |
| 544963 Iggap2 | IQ motif containing GTPase activating protein 2 | 1655.0083 | 1092.382855 | 2217.633715 | 1.992267063 | 0.994411053 | 4.41E-05 | 0.001192 |
| 15331 Hmgn2 | high mobility group nucleosomal binding domain 2 | 2467.7791 | 1628.779307 | 3306.778808 | 1.99103922 | 0.99352164 | 0.000246 | 0.00488 |
| 27373 Csnk1e | casein kinase 1, epsilon | 350.35334 | 232.6340918 | 468.072591 | 1.990432976 | 0.993082292 | 0.006187 | 0.066407 |
| 102545 Cmtm7 | CKLF-like MARVEL transmembrane domain containing 7 | 774.8064 | 512.5982687 | 1037.014531 | 1.98889853 | 0.991969675 | 0.000315 | 0.005955 |
| 67177 Cdt1 | chromatin licensing and DNA replication factor 1 | 559.02638 | 370.6528604 | 747.3998943 | 1.984001829 | 0.988413356 | 0.000584 | 0.009902 |
| 64138 Ctsz | cathepsin Z | 789.14454 | 521.9865093 | 1056.302573 | 1.980926766 | 0.986175545 | 0.001448 | 0.020867 |

| | | | | | | | | |
|---------------|---|-----------|--------------|--------------|-------------|-------------|----------|----------|
| 208449 Sgms1 | sphingomyelin synthase 1 | 381.76518 | 252.7202147 | 510.8101373 | 1.977968171 | 0.984019211 | 0.00515 | 0.05739 |
| 17120 Mad1l1 | MAD1 mitotic arrest deficient 1-like 1 | 323.88212 | 215.4239932 | 432.3402423 | 1.976110107 | 0.982663334 | 0.005529 | 0.060727 |
| 70699 Nup205 | nucleoporin 205 | 1478.9796 | 981.4432867 | 1976.515898 | 1.97608123 | 0.982642252 | 8.1E-05 | 0.001984 |
| 66824 Pycard | PYD and CARD domain containing | 781.88334 | 518.9905698 | 1044.776109 | 1.973748748 | 0.980938351 | 0.000183 | 0.003839 |
| 12515 Cd69 | CD69 antigen | 1217.5452 | 812.7006707 | 1622.389778 | 1.972873992 | 0.980298814 | 0.001203 | 0.017892 |
| 20641 Snrpd1 | small nuclear ribonucleoprotein D1 | 491.63692 | 327.2287341 | 656.0451053 | 1.968166599 | 0.976852346 | 0.002808 | 0.035498 |
| 11303 Abca1 | ATP-binding cassette, sub-family A (ABC1), member 1 | 481.84252 | 321.9112143 | 641.7738257 | 1.966133334 | 0.975361162 | 0.00285 | 0.035835 |
| 11891 Rab27a | RAB27A, member RAS oncogene family | 1475.7504 | 984.8419336 | 1966.658769 | 1.964348749 | 0.974051088 | 5.4E-05 | 0.001421 |
| 11881 Arsb | arylsulfatase B | 440.45036 | 295.0017466 | 585.898978 | 1.962545271 | 0.972725934 | 0.002933 | 0.03659 |
| 16598 Klf2 | Kruppel-like factor 2 (lung) | 3573.9871 | 2396.429711 | 4751.544489 | 1.954974857 | 0.967150053 | 9.1E-05 | 0.002192 |
| 21681 Alyref | Aly/REF export factor | 808.75961 | 541.604397 | 1075.914827 | 1.954476113 | 0.966781952 | 0.000104 | 0.002431 |
| 56371 Fzr1 | fizzy/division cycle 20 related 1 (Drosophila) | 690.23795 | 462.0868011 | 918.3890988 | 1.951876759 | 0.964861964 | 0.00018 | 0.003798 |
| 16653 Kras | Kirsten rat sarcoma viral oncogene homolog | 2406.3063 | 1615.911581 | 3196.701035 | 1.949419495 | 0.963044544 | 0.000107 | 0.002494 |
| 22627 Ywhae | tyrosine 3-monooxygenase/tryptophan 5-monooxygenase ac | 3317.0994 | 2224.921046 | 4409.27774 | 1.94865916 | 0.962481771 | 4.1E-05 | 0.001143 |
| 56349 Net1 | neuroepithelial cell transforming gene 1 | 439.75868 | 293.7235263 | 585.7938265 | 1.94848511 | 0.962352907 | 0.006527 | 0.068862 |
| 140579 Elm02 | engulfment and cell motility 2 | 825.81398 | 552.9716681 | 1098.656288 | 1.9474268 | 0.961569101 | 0.000275 | 0.005393 |
| 56207 Uchl5 | ubiquitin carboxyl-terminal esterase L5 | 424.72003 | 284.8399125 | 564.6001552 | 1.944951497 | 0.959734178 | 0.003672 | 0.043892 |
| 19057 Ppp3cc | protein phosphatase 3, catalytic subunit, gamma isoform | 832.26354 | 558.8699778 | 1105.600084 | 1.944919462 | 0.959710415 | 0.000175 | 0.003716 |
| 107652 Up1 | UDP-N-acetylglucosamine pyrophosphorylase 1 | 464.40392 | 312.274688 | 616.5313611 | 1.942864059 | 0.95818496 | 0.00308 | 0.037931 |
| 20230 Satb1 | special AT-rich sequence binding protein 1 | 5266.752 | 3551.61395 | 6981.890131 | 1.938537693 | 0.954968787 | 0.00015 | 0.003307 |
| 22629 Ywhab | tyrosine 3-monooxygenase/tryptophan 5-monooxygenase ac | 2272.0764 | 1532.317894 | 3011.834822 | 1.934339198 | 0.951840803 | 2.6E-05 | 0.000774 |
| 20351 Sema4a | sema domain, immunoglobulin domain (Ig), transmembrane | 1094.1746 | 737.6143413 | 1450.734915 | 1.933468505 | 0.951191264 | 9.1E-05 | 0.002187 |
| 13537 Disp2 | dual specificity phosphatase 2 | 1627.2376 | 1099.78898 | 2154.686134 | 1.933448672 | 0.951176465 | 0.000596 | 0.010073 |
| 18971 Pold1 | polymerase (DNA directed), delta 1, catalytic subunit | 917.77148 | 622.0580632 | 1213.484891 | 1.918455062 | 0.939944972 | 0.000117 | 0.002679 |
| 72549 Reep4 | receptor accessory protein 4 | 402.97559 | 273.4021433 | 532.5490445 | 1.918019511 | 0.939617396 | 0.003992 | 0.046909 |
| 80290 Gpr146 | G protein-coupled receptor 146 | 831.51896 | 565.2225074 | 1097.815419 | 1.914098323 | 0.93666494 | 0.003102 | 0.038128 |
| 12419 Cbx5 | chromobox 5 | 2297.2695 | 1558.430003 | 3036.109084 | 1.912545136 | 0.935493796 | 0.000208 | 0.004236 |
| 11783 Apaf1 | apoptotic peptidase activating factor 1 | 956.67595 | 648.2590653 | 1265.092843 | 1.912341145 | 0.935339911 | 0.000488 | 0.00853 |
| 22350 Ezr | ezrin | 5499.4052 | 3742.567686 | 7256.242777 | 1.91016393 | 0.933696455 | 5.3E-05 | 0.001387 |
| 22695 Zfp36 | zinc finger protein 36 | 2132.39 | 1447.911537 | 2186.868392 | 1.90904756 | 0.932853045 | 0.000347 | 0.006431 |
| 67681 Mrpl18 | mitochondrial ribosomal protein L18 | 519.47268 | 354.2217254 | 684.7236385 | 1.902782115 | 0.92811037 | 0.002257 | 0.029622 |
| 384009 Glipr2 | GLI pathogenesis-related 2 | 1942.0341 | 1325.254892 | 2558.813395 | 1.898782983 | 0.925075026 | 9.05E-05 | 0.002174 |
| 105245 Txnd5 | thioredoxin domain containing 5 | 1104.889 | 752.7461751 | 1457.031789 | 1.898671228 | 0.924990112 | 0.000631 | 0.010528 |
| 66892 Eif4e3 | eukaryotic translation initiation factor 4E member 3 | 608.9774 | 416.7487722 | 801.2060246 | 1.897252547 | 0.923911731 | 0.001075 | 0.016437 |
| 23790 Coro1c | coronin, actin binding protein 1C | 1328.7705 | 908.1187235 | 1749.422345 | 1.896866543 | 0.923618179 | 0.000113 | 0.002609 |
| 226519 Lamc1 | laminin, gamma 1 | 809.7028 | 553.5180567 | 1065.887536 | 1.894553008 | 0.921857506 | 0.000466 | 0.008204 |
| 23997 Psmd13 | proteasome (prosome, macropain) 26S subunit, non-ATPase, | 956.98914 | 654.8889118 | 1259.089359 | 1.889653279 | 0.918121547 | 0.000182 | 0.00383 |
| 110208 Pgd | phosphogluconate dehydrogenase | 990.87243 | 677.4088748 | 1304.335987 | 1.887516696 | 0.916489406 | 0.000748 | 0.012078 |
| 26410 Map3k8 | mitogen-activated protein kinase kinase kinase 8 | 416.15562 | 285.313118 | 546.9981218 | 1.886911441 | 0.916026714 | 0.005522 | 0.060697 |
| 16477 Junb | jun B proto-oncogene | 2521.2727 | 1730.09229 | 3312.453032 | 1.885588252 | 0.915014675 | 8.1E-05 | 0.001981 |
| 12545 Cdc7 | cell division cycle 7 (S. cerevisiae) | 411.1595 | 281.958918 | 540.3600818 | 1.88173282 | 0.913931652 | 0.004776 | 0.054249 |
| 103784 Wdr92 | WD repeat domain 92 | 1733.9721 | 1221.551717 | 2326.39242 | 1.8790426 | 0.909997775 | 0.00065 | 0.01081 |
| 81489 Dnajb1 | DnaJ heat shock protein family (Hsp40) member B1 | 678.98557 | 466.2410456 | 891.7301042 | 1.877081888 | 0.908491589 | 0.000607 | 0.010222 |
| 14571 Gpd2 | glycerol phosphate dehydrogenase 2, mitochondrial | 347.84138 | 238.9478396 | 456.7349264 | 1.875137356 | 0.906996278 | 0.009657 | 0.091247 |
| 192176 Flna | filamin, alpha | 17541.402 | 12076.41299 | 23006.39103 | 1.872826723 | 0.905217426 | 3.07E-05 | 0.000866 |
| 23872 Ets2 | E26 avian leukemia oncogene 2, 3' domain | 513.81504 | 353.9029416 | 673.7213798 | 1.870608842 | 0.903507912 | 0.003356 | 0.040749 |
| 50772 Mapk6 | mitogen-activated protein kinase 6 | 1245.9231 | 862.2868082 | 1629.559465 | 1.86053753 | 0.895719492 | 0.000169 | 0.003616 |
| 20893 Bhlhe40 | basic helix-loop-helix family, member e40 | 675.70766 | 468.2461272 | 883.1692001 | 1.859384271 | 0.894824957 | 0.001143 | 0.017225 |
| 12571 Cdk6 | cyclin-dependent kinase 6 | 2814.9624 | 1945.174533 | 3684.75017 | 1.857754131 | 0.893559577 | 0.000387 | 0.007054 |
| 326618 Tpm4 | tropomyosin 4 | 3536.8848 | 2450.77664 | 4622.992928 | 1.857200564 | 0.893129624 | 8.35E-05 | 0.002027 |
| 19027 Sypl | synaptophysin-like protein | 978.04307 | 676.2429145 | 1279.843226 | 1.856669449 | 0.892716989 | 0.000416 | 0.007476 |
| 105440 Kctd9 | potassium channel tetramerisation domain containing 9 | 371.52095 | 257.6691335 | 485.3727578 | 1.849319739 | 0.886994682 | 0.008045 | 0.080493 |
| 16010 Igfbp4 | insulin-like growth factor binding protein 4 | 2781.7302 | 1931.360396 | 3632.100083 | 1.844638726 | 0.883338291 | 0.000348 | 0.006439 |
| 171170 Mbnl3 | muscleblind-like 3 (Drosophila) | 2280.7425 | 1588.413963 | 2973.071062 | 1.842856398 | 0.881943655 | 0.000149 | 0.003288 |
| 77975 Tmem50b | transmembrane protein 50B | 462.57531 | 322.0732913 | 603.073199 | 1.840130743 | 0.879808275 | 0.004405 | 0.005792 |
| 98415 Nucks1 | nuclear casein kinase and cyclin-dependent kinase substrate | 270.5423 | 1895.925175 | 3545.159445 | 1.837006675 | 0.877356869 | 0.000259 | 0.005115 |
| 16768 Lag3 | lymphocyte-activation gene 3 | 423.44748 | 294.6672521 | 552.2277112 | 1.836696241 | 0.877113048 | 0.007713 | 0.077971 |
| 18286 Odf2 | outer dense fiber of sperm tails 2 | 1186.5388 | 828.308395 | 1544.769229 | 1.833907275 | 0.874920696 | 0.000226 | 0.004558 |
| 235633 Als2cl | ALS2 C-terminal like | 2722.3718 | 1906.464065 | 3538.2795 | 1.829334294 | 0.871318738 | 0.001258 | 0.018587 |
| 15481 Hspa8 | heat shock protein 8 | 20470.986 | 14312.60087 | 26629.37026 | 1.829167049 | 0.871186836 | 5.55E-05 | 0.001437 |
| 12193 Zfp36l2 | zinc finger protein 36, C3H type-like 2 | 6162.676 | 4318.8464336 | 8006.05666 | 1.828228956 | 0.870446756 | 0.000735 | 0.011919 |
| 67956 Kmt5a | lysine methyltransferase 5A | 1044.2218 | 731.3032786 | 1357.1405204 | 1.823204104 | 0.866476077 | 0.000955 | 0.014904 |
| 223773 Zbed4 | zinc finger, BED type containing 4 | 480.53352 | 335.8353259 | 625.2317221 | 1.822134099 | 0.865629137 | 0.006917 | 0.071812 |
| 17164 Mapkap2 | MAP kinase-activating protein kinase 2 | 2025.5488 | 1419.85719 | 2631.24047 | 1.821045623 | 0.864767067 | 0.000204 | 0.004197 |
| 84652 Fam126a | family with sequence similarity 126, member A | 630.25839 | 441.0492971 | 819.4674832 | 1.819801327 | 0.863780956 | 0.001866 | 0.025519 |
| 19385 Ranbp1 | RAN binding protein 1 | 803.09359 | 563.6013374 | 1042.585848 | 1.818875794 | 0.863047029 | 0.00198 | 0.026738 |
| 66395 Ahnak | AHNAK nucleoprotein (desmoyokin) | 13032.549 | 9152.143201 | 16912.95572 | 1.817428136 | 0.861898319 | 0.000113 | 0.0026 |
| 14998 H2-DmA | histocompatibility 2, class II, locus DMA | 492.46842 | 345.7277934 | 639.2090512 | 1.816294677 | 0.860998286 | 0.005442 | 0.060054 |
| 18810 Plec | plectin | 9310.3921 | 6550.5959852 | 12070.18456 | 1.815700418 | 0.860526185 | 0.00046 | 0.008138 |
| 19357 Rad21 | RAD21 cohesin complex component | 3238.1615 | 2276.455192 | 4199.867904 | 1.812627078 | 0.858082142 | 0.000208 | 0.004236 |
| 14251 Flot1 | flotillin 1 | 431.3135 | 303.5167595 | 559.1102425 | 1.807750714 | 0.854195746 | 0.008206 | 0.081765 |
| 246177 Myo1g | myosin IG | 4817.4226 | 3397.864857 | 6236.980339 | 1.805529903 | 0.852422314 | 0.000103 | 0.002409 |
| 15384 Hnrnpab | heterogeneous nuclear ribonucleoprotein A/B | 5264.8165 | 3720.084515 | 6809.548386 | 1.798848967 | 0.847074061 | 0.000187 | 0.003902 |
| 11749 Anxa6 | annexin A6 | 7431.845 | 5269.456201 | 9594.233745 | 1.793617178 | 0.8428272 | 0.000296 | 0.005702 |
| 56459 Sae1 | SUMO1 activating enzyme subunit 1 | 1137.4809 | 806.2670076 | 1468.694787 | 1.787505316 | 0.837947532 | 0.000662 | 0.010945 |
| 213211 Rnf26 | ring finger protein 26 | 402.80037 | 285.8882428 | 519.7124878 | 1.787230253 | 0.837726965 | 0.012025 | 0.095623 |
| 241627 Wdr76 | WD repeat domain 76 | 543.42793 | 384.5796571 | 702.2762126 | 1.785620819 | 0.836425753 | 0.006512 | 0.068784 |
| 114601 Ebhp11 | EH domain binding protein 1-like 1 | 1350.8883 | 962.217366 | 1739.59264 | 1.775619917 | 0.828322797 | 0.000725 | 0.011784 |
| 241296 Lrrc8a | leucine rich repeat containing 8A | 737.31234 | 525.7407315 | 948.8839421 | 1.773468068 | 0.826573354 | 0.001461 | 0.02101 |
| 12051 Bcl3 | B cell leukemia/lymphoma 3 | 807.6623 | 576.9844306 | 1038.340176 | 1.773396826 | 0.826515399 | 0.010019 | 0.094058 |
| 19384 Ran | RAN, member RAS oncogene family | 3496.3415 | 2493.996527 | 4498.686478 | 1.773002832 | 0.82619484 | 0.000495 | 0 |

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|----------------|---|-----------|--------------|-------------|-------------|-------------|----------|----------|
| 56532 Ripk3 | receptor-interacting serine-threonine kinase 3 | 721.02575 | 515.1263729 | 926.925133 | 1.771555079 | 0.82501632 | 0.001194 | 0.017784 |
| 77053 Sun1 | Sad1 and UNC84 domain containing 1 | 1066.5259 | 762.2282798 | 1370.823503 | 1.769476096 | 0.823322272 | 0.000644 | 0.010726 |
| 170750 Xpnpep1 | X-prolyl aminopeptidase (aminopeptidase P) 1, soluble | 495.54972 | 354.1956743 | 636.9037584 | 1.766387706 | 0.820802036 | 0.005533 | 0.060729 |
| 236539 Phgdh | 3-phosphoglycerate dehydrogenase | 1558.7963 | 1114.434583 | 2003.157939 | 1.765894027 | 0.820398768 | 0.000536 | 0.009218 |
| 12581 Cdkn2d | cyclin-dependent kinase inhibitor 2D (p19, inhibits CDK4) | 661.78721 | 475.0380507 | 848.5363611 | 1.765829981 | 0.820346443 | 0.003996 | 0.04692 |
| 17776 Mast2 | microtubule associated serine/threonine kinase 2 | 713.28649 | 511.0349711 | 915.5380093 | 1.764598474 | 0.819339943 | 0.001536 | 0.021833 |
| 20539 Slc7a5 | solute carrier family 7 (cationic amino acid transporter, y+ sy | 798.8996 | 571.8784051 | 1025.920797 | 1.763033033 | 0.818059506 | 0.001849 | 0.025341 |
| 16438 Itpr1 | inositol 1,4,5-trisphosphate receptor 1 | 1333.6214 | 954.8476326 | 1712.395174 | 1.761048725 | 0.816434827 | 0.000737 | 0.011943 |
| 19650 Rbl1 | retinoblastoma-like 1 (p107) | 1511.8107 | 1088.996834 | 1934.624612 | 1.750351667 | 0.807644806 | 0.000685 | 0.011269 |
| 26943 Serinc3 | serine incorporator 3 | 9127.5304 | 6570.044252 | 11685.01655 | 1.748156899 | 0.805834674 | 0.000281 | 0.005473 |
| 12334 Capn2 | calpain 2 | 2191.076 | 1581.674142 | 2800.477814 | 1.74235742 | 0.801040603 | 0.000391 | 0.007108 |
| 19072 Prep | prolyl endopeptidase | 532.36064 | 383.7037443 | 681.0175306 | 1.74078304 | 0.799736406 | 0.006417 | 0.068224 |
| 77446 Heg1 | heart development protein with EGF-like domains 1 | 871.54564 | 630.0684493 | 1113.02284 | 1.740035233 | 0.799116518 | 0.002863 | 0.035891 |
| 286940 Flnb | filamin, beta | 1433.9476 | 1035.800555 | 1832.094685 | 1.738887621 | 0.798164698 | 0.00065 | 0.01081 |
| 18641 Pfkl | phosphofructokinase, liver, B-type | 741.55471 | 535.3902834 | 947.7191413 | 1.738827636 | 0.79811493 | 0.002499 | 0.03222 |
| 15289 Hmggb1 | high mobility group box 1 | 4584.8312 | 3312.320476 | 5875.341887 | 1.738258001 | 0.79764223 | 0.000899 | 0.014174 |
| 14011 Etv6 | ets variant 6 | 871.81227 | 630.2749733 | 1113.349576 | 1.73507426 | 0.79499741 | 0.001296 | 0.018975 |
| 210035 Nem1p1 | nuclear envelope integral membrane protein 1 | 485.08835 | 352.1095117 | 618.0071834 | 1.726844971 | 0.78813857 | 0.008471 | 0.083496 |
| 60440 Igip1 | interferon inducible GTPase 1 | 2989.4481 | 2177.11547 | 3801.780659 | 1.72309377 | 0.785001215 | 0.002438 | 0.031653 |
| 59008 Anapc5 | anaphase-promoting complex subunit 5 | 2897.5958 | 2106.87614 | 3688.315535 | 1.721832731 | 0.783944998 | 0.000409 | 0.007382 |
| 67095 Trak1 | trafficking protein, kinesin binding 1 | 979.90583 | 713.8448942 | 1245.966768 | 1.718456348 | 0.781113205 | 0.002306 | 0.030134 |
| 230484 Usp1 | ubiquitin specific peptidase 1 | 1497.5697 | 1094.552299 | 1900.587029 | 1.708910143 | 0.77307654 | 0.001279 | 0.018818 |
| 19387 Rangap1 | RAN GTPase activating protein 1 | 1738.9329 | 1274.933838 | 2202.91395 | 1.699427967 | 0.765049212 | 0.001126 | 0.017041 |
| 18746 Pkm | pyruvate kinase, muscle | 9382.7101 | 6885.950162 | 11879.46997 | 1.696732156 | 0.762758841 | 0.000455 | 0.008065 |
| 20737 Spn | sialophorin | 7425.7194 | 5451.36236 | 9400.07652 | 1.695342547 | 0.761576802 | 0.000569 | 0.009711 |
| 533172 Gars | glycyl-tRNA synthetase | 1385.11 | 1017.196892 | 1753.023021 | 1.692704337 | 0.759330001 | 0.001711 | 0.023816 |
| 56421 Pfkp | phosphofructokinase, platelet | 1763.8216 | 1298.379531 | 2229.263647 | 1.689047788 | 0.756210146 | 0.002035 | 0.02738 |
| 24109 Ubl3 | ubiquitin-like 3 | 1252.945 | 922.3095167 | 1583.580485 | 1.688395752 | 0.755653105 | 0.001376 | 0.019986 |
| 110052 Dek | DEK oncogene (DNA binding) | 2357.4312 | 1738.766695 | 2976.095679 | 1.682869266 | 0.750923105 | 0.002239 | 0.029439 |
| 17758 Map4 | microtubule-associated protein 4 | 2344.072 | 1732.895131 | 2955.248846 | 1.681691747 | 0.749913285 | 0.002282 | 0.029865 |
| 20250 Scd2 | stearoyl-Coenzyme A desaturase 2 | 2505.9424 | 1853.635588 | 3158.249301 | 1.67896031 | 0.747568126 | 0.001272 | 0.018734 |
| 58203 Zfp1 | Z-DNA binding protein 1 | 1856.8727 | 1375.371708 | 2338.373678 | 1.676087732 | 0.745097666 | 0.006369 | 0.067959 |
| 14667 Gm2 | GM2 ganglioside activator protein | 2059.0877 | 1523.651554 | 2594.523923 | 1.671082429 | 0.740782898 | 0.003971 | 0.046776 |
| 445007 Nup85 | nucleoporin 85 | 648.14967 | 480.7739886 | 815.525361 | 1.667316834 | 0.73752828 | 0.006477 | 0.068657 |
| 66961 Neat1 | nuclear paraspeckle assembly transcript 1 (non-protein codir | 6129.424 | 4555.653468 | 7703.194623 | 1.664967849 | 0.735494319 | 0.001789 | 0.024723 |
| 17936 Nab1 | Ngfi-A binding protein 1 | 1045.6304 | 775.9458675 | 1315.314971 | 1.664158483 | 0.734792832 | 0.00258 | 0.033144 |
| 67967 Pold3 | polymerase (DNA-directed), delta 3, accessory subunit | 593.52857 | 440.6021428 | 746.4549955 | 1.664036125 | 0.734686753 | 0.007936 | 0.079569 |
| 12858 Cox5a | cytochrome c oxidase subunit Va | 812.30998 | 602.4374905 | 1022.182464 | 1.663579507 | 0.734290818 | 0.007638 | 0.07743 |
| 13244 Dggs1 | delta(4)-desaturase, sphingolipid 1 | 645.89046 | 480.7923843 | 810.988437 | 1.654601877 | 0.726484124 | 0.007524 | 0.076488 |
| 12566 Cdk2 | cyclin-dependent kinase 2 | 817.99039 | 610.2072462 | 1025.773541 | 1.654487567 | 0.72638445 | 0.003233 | 0.039526 |
| 18195 Nsf | N-ethylmaleimide sensitive fusion protein | 794.95626 | 593.7787963 | 996.1337164 | 1.649369945 | 0.721915024 | 0.003652 | 0.043725 |
| 14719 Got2 | glutamic-oxaloacetic transaminase 2, mitochondrial | 1622.4649 | 1212.571553 | 2032.35824 | 1.646434046 | 0.719344721 | 0.002563 | 0.032953 |
| 15252 Hint1 | histidine triad nucleotide binding protein 1 | 995.04734 | 744.272924 | 1245.821756 | 1.645525523 | 0.718548404 | 0.008364 | 0.082763 |
| 105847 Lmf2 | lipase maturation factor 2 | 789.52425 | 590.9866957 | 988.0617949 | 1.644343073 | 0.71751132 | 0.004318 | 0.049904 |
| 15191 Hdgf | hepatoma-derived growth factor | 2346.313 | 1756.13927 | 2936.48678 | 1.641323121 | 0.714859284 | 0.004859 | 0.054848 |
| 66494 Prelid1 | PRELI domain containing 1 | 1935.0673 | 1450.674902 | 2419.45977 | 1.641248558 | 0.714793743 | 0.001793 | 0.024739 |
| 245688 Rbbp7 | retinoblastoma binding protein 7 | 2657.2859 | 1992.791581 | 3321.780196 | 1.638593405 | 0.712457913 | 0.001967 | 0.026599 |
| 23943 Esyt1 | extended synaptotagmin-like protein 1 | 5914.9675 | 4448.737488 | 7381.197589 | 1.632556637 | 0.707133043 | 0.001884 | 0.025673 |
| 330814 Adgr1 | adhesion G protein-coupled receptor L1 | 2553.3651 | 1923.69753 | 3183.032647 | 1.632155794 | 0.706778774 | 0.008011 | 0.080208 |
| 51788 H2afz | H2A histone family, member Z | 5896.2008 | 4438.731561 | 7353.669988 | 1.629806961 | 0.704701098 | 0.001477 | 0.021181 |
| 15510 Hspd1 | heat shock protein 1 (chaperonin) | 2688.6391 | 2021.384661 | 3355.893151 | 1.629057864 | 0.704037849 | 0.00748 | 0.076309 |
| 233726 Ipo7 | importin 7 | 1314.4205 | 989.2130425 | 1639.628019 | 1.625671827 | 0.701036051 | 0.008436 | 0.083268 |
| 12868 Cox8a | cytochrome c oxidase subunit VIIa | 810.05362 | 610.2647187 | 1009.842526 | 1.625598205 | 0.700970714 | 0.008495 | 0.083565 |
| 12466 Cct6a | chaperonin containing Tcp1, subunit 6a (zeta) | 1972.5885 | 1487.955412 | 2457.221536 | 1.622103708 | 0.69786606 | 0.003257 | 0.039766 |
| 17463 Psmd7 | proteasome (prosome, macropain) 26S subunit, non-ATPase, | 814.95414 | 615.1301139 | 1014.778165 | 1.61923395 | 0.695311444 | 0.006162 | 0.066186 |
| 14489 Mtpn | myotrophin | 2250.7875 | 1702.472071 | 2799.10299 | 1.615756415 | 0.692209719 | 0.003431 | 0.041349 |
| 76499 Clsp2 | CLIP associating protein 2 | 766.63906 | 582.6835769 | 950.5945397 | 1.603731911 | 0.681432993 | 0.006997 | 0.072493 |
| 22367 Vrk1 | vaccinia related kinase 1 | 1071.7102 | 816.31122116 | 1327.109113 | 1.596290403 | 0.67472316 | 0.005838 | 0.063453 |
| 81910 Rrbp1 | ribosome binding protein 1 | 1457.6932 | 1111.529823 | 1803.856517 | 1.595924471 | 0.674392376 | 0.005865 | 0.063696 |
| 53314 Batf | basic leucine zipper transcription factor, ATF-like | 689.39707 | 526.9013217 | 851.892861 | 1.592115776 | 0.67094525 | 0.009275 | 0.088841 |
| 277360 Prex1 | phosphatidylinositol-3,4,5-trisphosphate-dependent Rac exc | 2924.2053 | 2233.630357 | 3614.780157 | 1.591322696 | 0.670226422 | 0.004947 | 0.055634 |
| 20194 S100a10 | S100 calcium binding protein A10 (Calpastatin) | 2834.3144 | 2165.93901 | 3502.688957 | 1.590958469 | 0.669896176 | 0.003103 | 0.038128 |
| 74038 Brip1os | BRCA1 interacting protein C-terminal helicase 1, opposite str | 738.30297 | 564.3910415 | 912.214891 | 1.589833106 | 0.668875325 | 0.008639 | 0.084699 |
| 98386 Lbr | lamin B receptor | 3815.6195 | 2917.393941 | 4713.845146 | 1.588924147 | 0.668050254 | 0.002616 | 0.033518 |
| 12237 Bub3 | BUB3 mitotic checkpoint protein | 1089.9208 | 833.8768856 | 1345.964706 | 1.586836305 | 0.666153052 | 0.00524 | 0.058044 |
| 54375 Azin1 | antizyme inhibitor 1 | 1879.382 | 1438.387271 | 2320.376749 | 1.585471614 | 0.664912048 | 0.008966 | 0.087088 |
| 109934 Abr | active BCR-related gene | 1620.6157 | 1240.04044 | 2001.227439 | 1.584023604 | 0.663593833 | 0.005971 | 0.064663 |
| 20867 Stip1 | stress-induced phosphoprotein 1 | 1594.4495 | 1224.04611 | 1964.834824 | 1.579454026 | 0.659425944 | 0.004634 | 0.05278 |
| 22027 Hsp90b1 | heat shock protein 90, beta (Grp94), member 1 | 5327.6131 | 4086.598441 | 6568.627845 | 1.578680615 | 0.658719327 | 0.007868 | 0.079101 |
| 68278 Ddx39 | DEAD (Asp-Glu-Ala-Asp) box polypeptide 39 | 1129.4903 | 866.9142581 | 1392.066353 | 1.576735745 | 0.65694089 | 0.009949 | 0.093525 |
| 78885 Coro7 | coronin 7 | 2449.7066 | 1886.529679 | 3012.88347 | 1.572649284 | 0.653196971 | 0.007968 | 0.079832 |
| 114584 Clic1 | chloride intracellular channel 1 | 3322.2281 | 2558.824473 | 4085.631753 | 1.570771575 | 0.651473396 | 0.003284 | 0.03995 |
| 18813 Pa2g4 | proliferation-associated 2G4 | 2215.7303 | 1707.112547 | 2724.347961 | 1.567377481 | 0.648352675 | 0.008232 | 0.081973 |
| 12313 Calm1 | calmodulin 1 | 6525.0249 | 5030.606795 | 8019.443042 | 1.566731042 | 0.647757536 | 0.004853 | 0.054832 |
| 17913 Myo1c | myosin IC | 895.40362 | 691.5732169 | 1099.23403 | 1.564858349 | 0.64603207 | 0.008393 | 0.082896 |
| 70247 Psmd1 | proteasome (prosome, macropain) 26S subunit, non-ATPase, | 1546.8958 | 1196.87762 | 1896.913988 | 1.557088049 | 0.638850527 | 0.008321 | 0.082536 |
| 23849 Klf6 | Kruppel-like factor 6 | 2763.0023 | 2148.888305 | 3377.116321 | 1.547505968 | 0.629944973 | 0.004792 | 0.054344 |
| 11651 Akt1 | thymoma viral proto-oncogene 1 | 2090.8408 | 1625.848496 | 2555.833089 | 1.546620863 | 0.629119579 | 0.005406 | 0.059782 |
| 11740 Sclt2a5 | solute carrier family 25 (mitochondrial carrier, adenine nucle | 3697.8464 | 2872.578935 | 4523.113948 | 1.546550113 | 0.629053582 | 0.008259 | 0.082185 |
| 328365 Zmiz1 | zinc finger, MI-Z type containing 1 | 2312.511 | 1799.140408 | 2825.881566 | 1.544610922 | 0.627243478 | 0.009577 | 0.090745 |
| 66694 Uqcrfs1 | ubiquinol-cytochrome c reductase, Rieske iron-sulfur polype | 887.34861 | 691.3379567 | 1083.359267 | 1.542 | | | |

| | | | | | | | | |
|----------------|---|-----------|--------------|-------------|--------------|---------------|----------|----------|
| 19652 Rbm3 | RNA binding motif protein 3 | 7026.4306 | 5483.083121 | 8569.77815 | 1.537778859 | 0.620848051 | 0.004487 | 0.05154 |
| 22384 Eif4fh | eukaryotic translation initiation factor 4H | 2895.5561 | 2258.481841 | 3532.630427 | 1.537686575 | 0.620761471 | 0.005235 | 0.058044 |
| 16423 Cd47 | CD47 antigen (Rh-related antigen, integrin-associated signal suppressor of zeste 12 homolog (Drosophila)) | 2478.7879 | 1933.937518 | 3023.638282 | 1.53692096 | 0.620042973 | 0.009871 | 0.092966 |
| 52615 Suz12 | suppressor of zeste 12 homolog (Drosophila) | 2683.2652 | 2094.526066 | 3272.004386 | 1.536769043 | 0.619900363 | 0.005017 | 0.056118 |
| 17158 Man2a1 | mannosidase 2, alpha 1 | 1815.9272 | 1420.142267 | 2211.712195 | 1.529889307 | 0.613430828 | 0.008945 | 0.086939 |
| 12445 Ccnd3 | cyclin D3 | 1813.808 | 1425.051709 | 2202.564231 | 1.522677863 | 0.606610758 | 0.010162 | 0.095101 |
| 11928 Atpl1a1 | ATPase, Na ⁺ /K ⁺ transporting, alpha 1 polypeptide | 5961.8534 | 4681.737096 | 7241.969752 | 1.520545099 | 0.604588607 | 0.007138 | 0.073637 |
| 14693 Gnb2 | guanine nucleotide binding protein (G protein), beta 2 | 2617.2996 | 2061.687163 | 3172.912047 | 1.514051838 | 0.598414601 | 0.007703 | 0.077946 |
| 217578 Baz1a | bromodomain adjacent to zinc finger domain 1A | 2117.3994 | 1674.257932 | 2560.54091 | 1.506126568 | 0.590843012 | 0.010506 | 0.097751 |
| 16498 Kcnab2 | potassium voltage-gated channel, shaker-related subfamily, I | 3183.9719 | 2523.912675 | 3844.031186 | 1.499960011 | 0.584924039 | 0.009886 | 0.092989 |
| 21838 Thy1 | thymus cell antigen 1, theta | 4140.4501 | 4918.225044 | 3362.675156 | 0.6272571293 | -0.572240893 | 0.009601 | 0.090894 |
| 77305 Wdr82 | WD repeat domain containing 82 | 3645.4697 | 4341.562083 | 2949.377346 | 0.668970456 | -0.579985597 | 0.009627 | 0.091078 |
| 19899 Rpl18 | ribosomal protein L18 | 8784.2295 | 10472.06703 | 7096.391935 | 0.666731647 | -0.584821888 | 0.00747 | 0.076258 |
| 14360 Fyn | Fyn proto-oncogene | 5277.8464 | 6319.35517 | 4236.337716 | 0.6605099641 | -0.59815191 | 0.009561 | 0.090713 |
| 14109 Fau | Finkel-Biskis-Reilly murine sarcoma virus (FBR-MuSV) ubiquit | 6795.7405 | 8137.819134 | 5453.661821 | 0.65947986 | -0.600599493 | 0.006387 | 0.068089 |
| 12493 Cd37 | CD37 antigen | 2083.085 | 2495.283203 | 1670.886878 | 0.659416391 | -0.600738346 | 0.009858 | 0.092907 |
| 19989 Rpl7 | ribosomal protein L7 | 13860.165 | 16615.55128 | 11104.77905 | 0.65686608 | -0.606328826 | 0.00621 | 0.066504 |
| 20068 Rps17 | ribosomal protein S17 | 4684.9163 | 5618.236606 | 3751.596085 | 0.656198334 | -0.607796164 | 0.009335 | 0.089073 |
| 53599 Cd164 | CD164 antigen | 3309.7722 | 3970.572443 | 2648.971963 | 0.658520298 | -0.608627541 | 0.006673 | 0.069858 |
| 20116 Rps8 | ribosomal protein S8 | 11495.468 | 13877.5329 | 9203.4037 | 0.655788682 | -0.608697093 | 0.010459 | 0.097443 |
| 17085 Ly9 | lymphocyte antigen 9 | 1861.2783 | 2240.089671 | 1482.466925 | 0.652261323 | -0.61647801 | 0.010639 | 0.098616 |
| 72318 Cyth4 | cytohesin 4 | 2790.8272 | 3359.314181 | 2222.340133 | 0.651440456 | -0.618294777 | 0.008609 | 0.084575 |
| 16797 Lat | linker for activation of T cells | 4382.0118 | 5275.214705 | 3488.808922 | 0.651436208 | -0.618304186 | 0.005882 | 0.063787 |
| 63830 Kcnq1ot1 | KCNQ1 overlapping transcript 1 | 4069.8816 | 4906.921701 | 3232.841523 | 0.649795754 | -0.621941779 | 0.009126 | 0.088138 |
| 66489 Rpl35 | ribosomal protein L35 | 5020.7639 | 6046.59785 | 3994.929875 | 0.649622985 | -0.622325416 | 0.007884 | 0.079147 |
| 27207 Rps11 | ribosomal protein S11 | 11671.338 | 14065.2292 | 9277.445918 | 0.648715717 | -0.624341702 | 0.004062 | 0.047656 |
| 19921 Rpl19 | ribosomal protein L19 | 13837.22 | 16712.24367 | 10962.19768 | 0.645388935 | -0.631759252 | 0.003447 | 0.041443 |
| 19651 Rbl2 | retinoblastoma-like 2 | 1971.2694 | 2385.381624 | 1557.157224 | 0.643079378 | -0.636931268 | 0.007419 | 0.075785 |
| 13682 Eif4a2 | eukaryotic translation initiation factor 4A2 | 6284.5615 | 7601.313507 | 4967.809399 | 0.642470131 | -0.63829871 | 0.004823 | 0.054662 |
| 74131 Sash3 | SAM and SH3 domain containing 3 | 3888.197 | 4712.36668 | 3064.02731 | 0.640244041 | -0.643305363 | 0.004191 | 0.048738 |
| 68564 Nufip2 | nuclear fragile X mental retardation protein interacting protein | 3434.1231 | 4163.196766 | 2705.049479 | 0.639742611 | -0.644436515 | 0.005397 | 0.059725 |
| 24252 Klh9 | kelch-like 9 | 1162.7298 | 1411.216492 | 914.2431871 | 0.638085042 | -0.648179379 | 0.006644 | 0.069778 |
| 21353 Tank | TIAF family member-associated Nf-kappa B activator | 1198.2265 | 1454.549439 | 941.9036143 | 0.637442173 | -0.6496333624 | 0.006774 | 0.070534 |
| 78294 Rps27a | ribosomal protein S27A | 8430.835 | 10242.04645 | 6619.623588 | 0.635142145 | -0.654848591 | 0.006671 | 0.069858 |
| 74735 Trim14 | tripartite motif-containing 14 | 1491.1087 | 1812.789783 | 1169.427653 | 0.634902436 | -0.655393182 | 0.009147 | 0.088138 |
| 15976 Ifnar2 | interferon (alpha and beta) receptor 2 | 1042.3601 | 1267.509317 | 817.2108083 | 0.63447388 | -0.656367323 | 0.006497 | 0.068729 |
| 16432 Itm2b | integral membrane protein 2B | 5664.5618 | 6886.848941 | 4442.273749 | 0.633548766 | -0.658472423 | 0.004897 | 0.055194 |
| 22802 Pdk1 | pyruvate dehydrogenase kinase, isoenzyme 1 | 1679.0455 | 2044.487804 | 1313.603252 | 0.633179744 | -0.659312992 | 0.008492 | 0.083565 |
| 20104 Rps6 | ribosomal protein S6 | 16623.669 | 20229.56003 | 13017.77839 | 0.632787742 | -0.660206441 | 0.00269 | 0.034266 |
| 22121 Rpl13a | ribosomal protein L13A | 18008.163 | 21942.16708 | 14074.159 | 0.631152391 | -0.66393971 | 0.00213 | 0.028268 |
| 64453 Zfp280b | zinc finger protein 280B | 841.11454 | 1025.915743 | 656.3133945 | 0.628960519 | -0.668958635 | 0.00658 | 0.069252 |
| 66826 Taz | tafazzin | 639.31092 | 781.2921235 | 497.3297068 | 0.6263554847 | -0.6749477881 | 0.009882 | 0.029989 |
| 320528 Vps13c | vacuolar protein sorting 13C | 1875.6207 | 2290.806177 | 1460.435189 | 0.625976931 | -0.675818603 | 0.0075 | 0.076403 |
| 22186 Uba52 | ubiquitin A-52 residue ribosomal protein fusion product 1 | 7076.1608 | 8652.402603 | 5499.918921 | 0.62481257 | -0.678504616 | 0.002471 | 0.031975 |
| 107321 Lpxn | leupaxin | 832.44853 | 1018.007277 | 646.8897866 | 0.624137976 | -0.680063099 | 0.007688 | 0.077883 |
| 55949 Eef1b2 | eukaryotic translation elongation factor 1 beta 2 | 7029.2265 | 8601.848174 | 5456.604755 | 0.623375644 | -0.681826306 | 0.004536 | 0.051888 |
| 231123 Haus3 | HAUS augmin-like complex, subunit 3 | 859.13986 | 1052.273452 | 666.0062635 | 0.621449807 | -0.686290222 | 0.007058 | 0.073019 |
| 19253 Ptpn18 | protein tyrosine phosphatase, non-receptor type 18 | 850.62453 | 1043.07871 | 658.1703564 | 0.621319936 | -0.686591748 | 0.005142 | 0.057384 |
| 20103 Rps5 | ribosomal protein S5 | 9533.3619 | 11683.50136 | 7383.224456 | 0.621233503 | -0.686792459 | 0.002364 | 0.03075 |
| 27050 Rps3 | ribosomal protein S3 | 15913.961 | 19517.20942 | 12310.71267 | 0.620449603 | -0.688614065 | 0.001905 | 0.025859 |
| 76846 Rps9 | ribosomal protein S9 | 12290.235 | 15072.54156 | 9057.929823 | 0.620318587 | -0.68891874 | 0.002384 | 0.030982 |
| 1E+08 Mndal | myeloid nuclear differentiation antigen like | 2710.8088 | 3330.739096 | 2090.878424 | 0.618853702 | -0.6923297 | 0.004294 | 0.049699 |
| 15499 Hsf1 | heat shock factor 1 | 658.86734 | 809.7595186 | 507.9751602 | 0.618771681 | -0.692520923 | 0.008812 | 0.085915 |
| 67097 Rps10 | ribosomal protein S10 | 7252.3308 | 8904.225824 | 5600.435822 | 0.618771082 | -0.692522321 | 0.001439 | 0.020765 |
| 78826 P2ry10 | purinergic receptor P2Y, G-protein coupled 10 | 2040.9386 | 2508.788896 | 1573.08824 | 0.61850753 | -0.693136936 | 0.009418 | 0.089574 |
| 67025 Rpl11 | ribosomal protein L11 | 8528.9956 | 10474.949911 | 5683.041332 | 0.618348709 | -0.693507441 | 0.001887 | 0.025688 |
| 20482 Skil | SKI-like | 2258.4711 | 2776.993435 | 1739.948767 | 0.617532224 | -0.695413674 | 0.002969 | 0.036953 |
| 228536 Bahd1 | bromo adjacent homology domain containing 1 | 831.97149 | 1022.608675 | 641.334032 | 0.617263293 | -0.696042095 | 0.006297 | 0.067244 |
| 27027 Tspan32 | tetraspanin 32 | 2643.4032 | 3253.245378 | 2033.560938 | 0.616438198 | -0.697971832 | 0.009834 | 0.092736 |
| 27999 Fam3c | family with sequence similarity 3, member C | 1438.051 | 1770.881422 | 1105.220556 | 0.614456488 | -0.702617244 | 0.002635 | 0.033672 |
| 11305 Abca2 | ATP-binding cassette, sub-family A (ABC1), member 2 | 3089.8701 | 3805.315082 | 2374.425127 | 0.61407775 | -0.703506764 | 0.002351 | 0.030615 |
| 71704 Arhgef3 | Rho guanine nucleotide exchange factor (GEF) 3 | 3270.1372 | 4031.342294 | 2508.932116 | 0.61339008 | -0.705116374 | 0.003103 | 0.038128 |
| 20102 Rps4x | ribosomal protein S4, X-linked | 20744.719 | 25552.97684 | 15936.46019 | 0.613197914 | -0.705575305 | 0.001672 | 0.023424 |
| 229534 Pbixp1 | pre B cell leukemia transcription factor interacting protein 1 | 2008.6537 | 2477.531686 | 1539.775654 | 0.612395317 | -0.707464844 | 0.002983 | 0.037057 |
| 216233 Soc52 | suppressor of cytokine signaling 2 | 881.96089 | 1087.726269 | 676.1955202 | 0.612056897 | -0.708262323 | 0.004283 | 0.049666 |
| 11426 Macf1 | microtubule-actin crosslinking factor 1 | 20950.772 | 25866.94166 | 16034.60298 | 0.611076573 | -0.710574923 | 0.00663 | 0.069672 |
| 434215 Lrrc32 | leucine rich repeat containing 32 | 3795.1333 | 4685.614719 | 2904.651925 | 0.610652215 | -0.711577114 | 0.002989 | 0.037099 |
| 56458 Foxo1 | forkhead box O1 | 3638.2158 | 4495.308891 | 2781.122798 | 0.610370655 | -0.712242492 | 0.007168 | 0.073897 |
| 212528 Trmt1 | tRNA methyltransferase 1 | 678.73848 | 838.0414706 | 519.4354912 | 0.61001574 | -0.713081627 | 0.005411 | 0.059793 |
| 16155 Il10rb | interleukin 10 receptor, beta | 795.71144 | 982.8234264 | 608.5994574 | 0.610011234 | -0.713092282 | 0.004289 | 0.049683 |
| 59125 Nek7 | NIMA (never in mitosis gene a)-related expressed kinase 7 | 2083.323 | 2575.42574 | 1591.220238 | 0.608104886 | -0.717607915 | 0.001721 | 0.023916 |
| 71389 Chd6 | chromodomain helicase DNA binding protein 6 | 1824.2015 | 2258.163057 | 1390.239883 | 0.606794919 | -0.72071909 | 0.006529 | 0.068862 |
| 20440 St6gal1 | beta galactoside alpha 2,6 sialyltransferase 1 | 2380.6677 | 2946.606994 | 1814.728386 | 0.606611798 | -0.721154539 | 0.003034 | 0.037563 |
| 268449 Rpl23a | ribosomal protein L23A | 10298.703 | 12740.79195 | 7856.613395 | 0.606282402 | -0.721938147 | 0.001175 | 0.017569 |
| 76901 Jade2 | jade family PHD finger 2 | 1695.4036 | 2098.706762 | 1292.100359 | 0.606281912 | -0.721939314 | 0.004072 | 0.047667 |
| 100637 N4bp2l1 | NEDD4 binding protein 2-like 1 | 580.98838 | 719.3819635 | 442.5947901 | 0.605981454 | -0.72654453 | 0.008272 | 0.085328 |
| 57808 Rpl35a | ribosomal protein L35A | 5242.4583 | 6491.427421 | 3993.4892 | 0.604363225 | -0.726512219 | 0.00346 | 0.041564 |
| 67427 Rps20 | ribosomal protein S20 | 8501.3797 | 10542.15343 | 6460.606042 | 0.602728804 | -0.730419084 | 0.001822 | 0.025041 |
| 66949 Trim59 | tripartite motif-containing 59 | 1825.3528 | 2264.512796 | 1386.19289 | 0.602441186 | -0.731107691 | 0.001536 | 0.021833 |
| 69632 Arhgef12 | Rho guanine nucleotide exchange factor (GEF) 12 | 752.60772 | 932.4376442 | 572.7777892 | 0.60214696 | -0.731812462 | 0.006837 | 0.071135 |
| 20527 Slc2a3 | solute carrier family 2 (facilitated glucose transporter), memt | 976.29387 | 1211.753513 | 740.83422 | 0.601990923 | -0.732186362 | 0.0 | |

| | | | | | | | | |
|---|---|-----------|-------------|-------------|-------------|---------------|-----------|----------|
| 319638 Nt5dc1 | 5'-nucleotidase domain containing 1 | 639.02825 | 792.5938669 | 485.4626384 | 0.60147021 | -0.73343481 | 0.007573 | 0.076877 |
| 16439 Itpr2 | inositol 1,4,5-triphosphate receptor 2 | 2932.8089 | 3645.787089 | 2219.830771 | 0.60097246 | -0.734737246 | 0.003704 | 0.044209 |
| 26451 Rpl27a | ribosomal protein L27A | 9429.5424 | 11719.9864 | 7139.098378 | 0.598952023 | -0.739487649 | 0.001172 | 0.017559 |
| 227612 Tor4a | torsin family 4, member A | 1283.1532 | 1596.766899 | 969.5394521 | 0.598269157 | -0.741133406 | 0.004068 | 0.047667 |
| 54217 Rpl36 | ribosomal protein L36 | 4078.3966 | 5076.189625 | 3080.603602 | 0.597618138 | -0.742704159 | 0.001253 | 0.018543 |
| 66169 Tomm7 | translocase of outer mitochondrial membrane 7 homolog (yeast) | 539.79368 | 671.9917208 | 407.5956348 | 0.59733538 | -0.74338692 | 0.01067 | 0.098779 |
| 69504 Zfp932 | zinc finger protein 932 | 571.91466 | 712.1976731 | 431.6316382 | 0.596958258 | -0.744298039 | 0.007545 | 0.076645 |
| 67186 Rplp2 | ribosomal protein, large P2 | 5013.1492 | 6243.295579 | 3783.002761 | 0.595906425 | -0.746842292 | 0.001035 | 0.015919 |
| 317758 Gimap9 | GTPase, IMAP family member 9 | 1342.0388 | 1676.720909 | 1007.356631 | 0.593197992 | -0.753414381 | 0.007099 | 0.073338 |
| 68052 Rps13 | ribosomal protein S13 | 8880.3997 | 11082.84323 | 6677.956095 | 0.592816838 | -0.754341669 | 0.000806 | 0.012873 |
| 216198 Tcp11l2 | t-complex 11 (mouse) like 2 | 785.47669 | 982.1306715 | 588.8227137 | 0.592269242 | -0.75567493 | 0.008993 | 0.087168 |
| 245867 Pcmtd2 | protein-L-isooaspartate (D-aspartate) O-methyltransferase domain containing 2 | 1258.0509 | 1572.6024 | 943.4994615 | 0.592010346 | -0.756305706 | 0.005202 | 0.057875 |
| 12043 Bcl2 | B cell leukemia/lymphoma 2 | 5609.8372 | 7012.048015 | 4207.626397 | 0.591059309 | -0.758625193 | 0.001067 | 0.016339 |
| 12500 Cd3d | CD3 antigen, delta polypeptide | 2798.162 | 3500.827346 | 2095.496645 | 0.590551385 | -0.7598655498 | 0.001945 | 0.026357 |
| 20005 Rpl9 | ribosomal protein L9 | 10380.959 | 12981.01224 | 7780.90551 | 0.589320819 | -0.762874861 | 0.000776 | 0.012486 |
| 19933 Rpl21 | ribosomal protein L21 | 10848.316 | 13565.17142 | 8131.460696 | 0.589263925 | -0.763014148 | 0.0006 | 0.010137 |
| 50523 Lats2 | large tumor suppressor 2 | 933.96082 | 1168.993405 | 698.9282245 | 0.587562325 | -0.767186203 | 0.002496 | 0.03221 |
| 329584 Slc2a4rg-p; Slc2a4 regulator, pseudogene | | 1083.3769 | 1357.688404 | 809.0635992 | 0.587015374 | -0.768529807 | 0.003375 | 0.040851 |
| 12227 Btg2 | B cell translocation gene 2, anti-proliferative | 1991.1771 | 2495.863698 | 1486.49045 | 0.586762424 | -0.769151611 | 0.001757 | 0.024308 |
| 116873 Stim2 | stromal interaction molecule 2 | 992.41655 | 1245.122695 | 739.7104015 | 0.585102921 | -0.773237675 | 0.001746 | 0.024197 |
| 21813 Tgfb2r | transforming growth factor, beta receptor II | 2351.6888 | 2953.166342 | 1750.211231 | 0.583889283 | -0.776233263 | 0.001621 | 0.022844 |
| 100019 Mdn1 | midasin AAA ATPase 1 | 4032.7129 | 5064.27071 | 3001.15518 | 0.583162725 | -0.778029588 | 0.001064 | 0.016308 |
| 74318 Hopx | HOP homeobox | 786.45282 | 989.8088483 | 583.0967867 | 0.582308784 | -0.780143713 | 0.006462 | 0.068557 |
| 215653 Rassf2 | Ras association (RalGDS/AF-6) domain family member 2 | 2305.286 | 2900.793074 | 1709.778977 | 0.581113926 | -0.783107066 | 0.0017 | 0.023739 |
| 21949 Trfsf8 | tumor necrosis factor (ligand) superfamily, member 8 | 730.81874 | 918.2391957 | 543.3982874 | 0.580874621 | -0.783701296 | 0.00296 | 0.036889 |
| 67281 Rpl37 | ribosomal protein L37 | 2740.8108 | 3447.829536 | 2033.792122 | 0.579693665 | -0.786637375 | 0.000965 | 0.015012 |
| 14979 H2-K6 | H2-K region expressed gene 6 | 760.91972 | 957.9481766 | 563.891207 | 0.578737219 | -0.789019667 | 0.001743 | 0.024197 |
| 15939 ler5 | immediate early response 5 | 1260.4457 | 1588.126201 | 932.7652494 | 0.577748987 | -0.791485269 | 0.000867 | 0.013725 |
| 20090 Rps29 | ribosomal protein S29 | 6214.3385 | 7829.300953 | 4599.376066 | 0.577508412 | -0.792086134 | 0.000958 | 0.014933 |
| 22070 Tpt1 | tumor protein, translationally-controlled 1 | 33871.629 | 42681.67358 | 25061.58538 | 0.577350731 | -0.792480096 | 0.000302 | 0.005773 |
| 16764 Aff3 | AF4/FMR2 family, member 3 | 1185.9177 | 1497.055891 | 874.7795802 | 0.576613298 | -0.794323986 | 0.00336 | 0.040749 |
| 50766 Crim1 | cysteine rich transmembrane BMP regulator 1 (chordin like) | 877.13953 | 1108.335015 | 645.9404643 | 0.576185839 | -0.795393892 | 0.005606 | 0.061394 |
| 80283 Abtb1 | ankyrin repeat and BTB (POZ) domain containing 1 | 491.81904 | 620.889477 | 362.748693 | 0.575688731 | -0.796639122 | 0.007262 | 0.074515 |
| 16195 Il6st | interleukin 6 signal transducer | 3048.2139 | 3851.063474 | 2245.364264 | 0.575568137 | -0.796941367 | 0.009221 | 0.088607 |
| 240174 Thada | thyroid adenoma associated | 894.71714 | 1131.012084 | 658.4222027 | 0.574757437 | -0.798974867 | 0.006102 | 0.065685 |
| 60599 Trp53inp1 | transformation related protein 53 inducible nuclear protein 1 | 4679.3784 | 5912.164771 | 3446.592022 | 0.57439328 | -0.799889223 | 0.000625 | 0.010455 |
| 21844 Tian1 | T cell lymphoma invasion and metastasis 1 | 2409.0396 | 3041.664101 | 1776.41515 | 0.57423898 | -0.80027683 | 0.000416 | 0.007479 |
| 67905 Ppm1m | protein phosphatase 1M | 1000.9066 | 1263.804912 | 738.0082808 | 0.574047282 | -0.800758523 | 0.001119 | 0.016983 |
| 1.01E+08 Rpl5 | ribosomal protein L5 | 18474.959 | 2350.37689 | 13599.54105 | 0.572685028 | -0.804186207 | 0.00033 | 0.00617 |
| 75965 Zdhhc20 | zinc finger, DHHC domain containing 20 | 2938.5093 | 3717.916956 | 2159.101688 | 0.572530393 | -0.804575813 | 0.000692 | 0.011347 |
| 77781 Epm2aip1 | EPM2A (laforin) interacting protein 1 | 1146.4101 | 1451.728602 | 841.09164 | 0.571432886 | -0.807344028 | 0.002792 | 0.035378 |
| 78334 Cdk19 | cyclin-dependent kinase 19 | 1667.7132 | 2111.320432 | 1224.106036 | 0.570664322 | -0.809285725 | 0.000494 | 0.008619 |
| 93675 Clec2i | C-type lectin domain family 2, member i | 912.91229 | 1156.797354 | 669.0272348 | 0.570337384 | -0.810112495 | 0.00307 | 0.037851 |
| 57874 Hacd3 | 3-hydroxyacyl-CoA dehydratase 3 | 1319.0798 | 1671.348206 | 966.813094 | 0.570127635 | -0.810643162 | 0.000794 | 0.012717 |
| 67246 2810474O: RIKEN cDNA 2810474O19 gene | | 4696.774 | 5956.430304 | 3437.117603 | 0.569574939 | -0.812042426 | 0.002554 | 0.032873 |
| 56604 Rplp1 | ribosomal protein, large, P1 | 12653.246 | 16026.09681 | 9280.405805 | 0.569299949 | -0.812739124 | 0.000462 | 0.008161 |
| 22035 Tnfsf10 | tumor necrosis factor (ligand) superfamily, member 10 | 864.51889 | 1095.588004 | 633.4497774 | 0.569128087 | -0.813174714 | 0.00218 | 0.028793 |
| 317757 Gimap5 | GTPase, IMAP family member 5 | 740.15724 | 939.5640622 | 540.7504264 | 0.568945257 | -0.813638249 | 0.009296 | 0.088929 |
| 56758 Mbni1 | muscleblind-like 1 (Drosophila) | 14206.327 | 18006.49821 | 10406.15556 | 0.568474233 | -0.814833145 | 0.000145 | 0.003223 |
| 223435 Trio | triple functional domain (PTPRF interacting) | 544.81291 | 689.6049268 | 400.0208924 | 0.567687977 | -0.816829908 | 0.009285 | 0.088879 |
| 66475 Rps23 | ribosomal protein S23 | 5507.6773 | 6982.883981 | 4032.470618 | 0.567550876 | -0.817178372 | 0.000475 | 0.008346 |
| 270106 Rpl13 | ribosomal protein L13 | 12533.17 | 15898.64789 | 9167.692574 | 0.567270598 | -0.817891005 | 0.000297 | 0.005702 |
| 319263 Pcmtd1 | protein-L-isooaspartate (D-aspartate) O-methyltransferase domain containing 1 | 957.49016 | 1215.39239 | 699.5879303 | 0.566732753 | -0.819259513 | 0.000825 | 0.013125 |
| 20084 Rps18 | ribosomal protein S18 | 11526.44 | 14626.71388 | 8426.166424 | 0.566357706 | -0.820214562 | 0.000317 | 0.00597 |
| 12501 Cd3e | CD3 antigen, epsilon polypeptide | 4622.9792 | 5873.673453 | 3372.284993 | 0.565674728 | -0.821955377 | 0.000306 | 0.005837 |
| 20363 Sepp1 | seleoprotein P, plasma, 1 | 1125.2425 | 1428.704012 | 821.7809724 | 0.56447651 | -0.825014549 | 0.001563 | 0.022152 |
| 83669 Wdr6 | WD repeat domain 6 | 1026.464 | 1305.137748 | 747.790239 | 0.56359482 | -0.827269743 | 0.001595 | 0.022517 |
| 76808 Rpl18a | ribosomal protein L18A | 12955.845 | 16472.93112 | 9438.759438 | 0.563569508 | -0.827334539 | 0.000157 | 0.00342 |
| 67776 Vwa5a | von Willebrand factor A domain containing 5A | 640.04035 | 813.6367411 | 466.4439579 | 0.562279772 | -0.830639949 | 0.003271 | 0.039823 |
| 22129 Ttc3 | tetratricopeptide repeat domain 3 | 1530.3279 | 1949.571693 | 1111.084144 | 0.562039998 | -0.831255529 | 0.001796 | 0.024755 |
| 17470 Cd200 | CD200 antigen | 575.23675 | 733.812987 | 416.660512 | 0.561788294 | -0.831901533 | 0.010581 | 0.098166 |
| 244713 Zfp317 | zinc finger protein 317 | 707.18351 | 901.4969323 | 512.8700973 | 0.56066199 | -0.834796828 | 0.003991 | 0.046909 |
| 54127 Rps28 | ribosomal protein S28 | 3630.4023 | 4624.790766 | 2636.013862 | 0.560614647 | -0.834918658 | 0.000301 | 0.005773 |
| 231003 Khlh17 | kelch-like 17 | 487.50798 | 621.8542244 | 353.1617432 | 0.559934093 | -0.83667107 | 0.009364 | 0.089174 |
| 20463 Cox7a2l | cytochrome c oxidase subunit VIIa polypeptide 2-like | 2440.7541 | 3114.174794 | 1767.333319 | 0.558616464 | -0.840074693 | 0.000219 | 0.004446 |
| 21961 Tns1 | tensin 1 | 565.5073 | 721.016159 | 409.9984436 | 0.557530124 | -0.842878339 | 0.00409 | 0.047808 |
| 56612 Pfnd5 | prefoldin 5 | 1424.5641 | 1819.395863 | 1029.732337 | 0.556364867 | -0.845896775 | 0.000325 | 0.006094 |
| 12502 Cd3g | CD3 antigen, gamma polypeptide | 3617.5798 | 4624.535624 | 2610.623979 | 0.556598414 | -0.847366377 | 0.000191 | 0.003972 |
| 74868 Tmem65 | transmembrane protein 65 | 545.86545 | 698.0229905 | 393.7079058 | 0.55664214 | -0.847772076 | 0.004958 | 0.055668 |
| 78751 Zc3h6 | zinc finger CCCH type containing 6 | 547.14959 | 700.8357721 | 393.4634145 | 0.555213274 | -0.848886034 | 0.008121 | 0.08109 |
| 54194 Akap8l | A kinase (PRKA) anchor protein 8-like | 1242.6708 | 1592.105343 | 893.2363514 | 0.553350185 | -0.853266104 | 0.001328 | 0.019364 |
| 19982 Rpl36a | ribosomal protein L36A | 3308.2469 | 4232.022935 | 2384.470774 | 0.553524505 | -0.853280907 | 0.001151 | 0.017306 |
| 108767 Pnrc1 | proline-rich nuclear receptor coactivator 1 | 2005.9534 | 2570.026982 | 1441.87978 | 0.55320558 | -0.85412385 | 0.000659 | 0.010908 |
| 20091 Rps3a1 | ribosomal protein S3A1 | 18925.432 | 24223.2708 | 13627.59379 | 0.552987231 | -0.854681927 | 0.000164 | 0.003533 |
| 241322 Zbtb6 | zinc finger and BTB domain containing 6 | 627.35642 | 804.0707128 | 450.6421222 | 0.552508413 | -0.855931662 | 0.001309 | 0.019144 |
| 234515 Inpp4b | inositol polyphosphate-4-phosphatase, type II | 9091.3906 | 11649.89435 | 6532.886802 | 0.552349028 | -0.856347905 | 0.000324 | 0.006094 |
| 214932 Cecr5 | cat eye syndrome chromosome region, candidate 5 | 1006.0749 | 1290.139255 | 722.0105716 | 0.552073696 | -0.857067231 | 0.0005667 | 0.061912 |
| 21940 Cd27 | CD27 antigen | 2706.4139 | 3472.58487 | 1940.42864 | 0.551724815 | -0.857979224 | 0.001674 | 0.023424 |
| 231932 Gimap7 | GTPase, IMAP family member 7 | 1275.435 | 1637.035294 | 913.8347667 | 0.551669448 | -0.858124009 | 0.005241 | 0.058044 |
| 57757 Pglyrp2 | peptidoglycan recognition protein 2 | 1727.229 | 2218.615753 | 1235.842241 | 0.549106073 | -0.864843227 | 0.000726 | 0.011785 |
| 80904 Dtx3 | deltex 3, E3 ubiquitin ligase | 889.89425 | 1144.318909 | 635.4695965 | 0. | | | |

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|------------------|--|-----------|--------------|-------------|-------------|--------------|----------|----------|
| 65019 Rpl23 | ribosomal protein L23 | 10581.942 | 13583.24857 | 7580.636324 | 0.548267856 | -0.867047201 | 0.000291 | 0.005624 |
| 67248 Rpl39 | ribosomal protein L39 | 4911.0004 | 6313.183904 | 3508.816849 | 0.546092763 | -0.872782058 | 0.000754 | 0.012153 |
| 320150 Zdhhc17 | zinc finger, DHHC domain containing 17 | 746.47239 | 963.0354064 | 529.90938 | 0.544492229 | -0.877016637 | 0.005013 | 0.056118 |
| 108654 Fam210a | family with sequence similarity 210, member A | 647.08344 | 833.978805 | 460.188066 | 0.543928265 | -0.878511698 | 0.000955 | 0.014904 |
| 19934 Rpl22 | ribosomal protein L22 | 4023.026 | 5186.577835 | 2859.474234 | 0.54203501 | -0.883542057 | 0.000187 | 0.003903 |
| 319195 Rpl17 | ribosomal protein L17 | 13024.595 | 16800.56941 | 9248.621532 | 0.541455876 | -0.88508432 | 6.44E-05 | 0.001642 |
| 106585 Ankrd12 | ankyrin repeat domain 12 | 3209.9195 | 4146.698903 | 2273.140002 | 0.541373887 | -0.885302794 | 0.000801 | 0.012814 |
| 66481 Rps21 | ribosomal protein S21 | 4722.9659 | 6094.60955 | 3351.322225 | 0.541059889 | -0.886139803 | 0.000179 | 0.003785 |
| 270118 Maml2 | mastermind like 2 (<i>Drosophila</i>) | 605.09849 | 782.2228237 | 427.9741482 | 0.539931024 | -0.889152978 | 0.002453 | 0.031792 |
| 22029 Traf1 | TNF receptor-associated factor 1 | 1789.5354 | 2314.59859 | 1264.472157 | 0.538443616 | -0.893132818 | 0.000433 | 0.007751 |
| 22379 Fmnl3 | formin-like 3 | 1073.6369 | 1388.84598 | 758.427764 | 0.537599071 | -0.89539745 | 0.000263 | 0.005186 |
| 67671 Rpl38 | ribosomal protein L38 | 3553.2149 | 4596.680831 | 2509.748957 | 0.537338198 | -0.896097696 | 0.000186 | 0.003892 |
| 20044 Rps14 | ribosomal protein S14 | 13251.466 | 17150.97367 | 9351.95842 | 0.536324202 | -0.898822737 | 4.42E-05 | 0.001192 |
| 70510 Rnf167 | ring finger protein 167 | 1511.7539 | 1957.995127 | 1065.512743 | 0.536258023 | -0.899000768 | 0.000435 | 0.007782 |
| 20849 Stat4 | signal transducer and activator of transcription 4 | 1248.7102 | 1619.472305 | 877.9480877 | 0.534683649 | -0.903242536 | 0.000664 | 0.01097 |
| 16170 Il16 | interleukin 16 | 3481.7723 | 4513.468085 | 2450.076438 | 0.534570332 | -0.903548322 | 8.55E-05 | 0.002067 |
| 211666 Mgst2 | microsomal glutathione S-transferase 2 | 402.94362 | 523.1313888 | 282.7558536 | 0.534423227 | -0.903945384 | 0.009146 | 0.088138 |
| 66573 Dzip1 | DAZ interacting protein 1 | 674.98035 | 875.1716632 | 474.244342 | 0.533651142 | -0.906031163 | 0.001163 | 0.017441 |
| 18197 Nsg2 | neuron specific gene family member 2 | 2481.7395 | 3222.6674797 | 1740.811421 | 0.532955936 | -0.907911837 | 0.000489 | 0.008549 |
| 20085 Rps19 | ribosomal protein S19 | 7196.4513 | 9341.109336 | 5051.793236 | 0.531908626 | -0.910749663 | 6.40E-05 | 0.001634 |
| 243371 Lrrc61 | leucine rich repeat containing 61 | 427.26869 | 555.9231606 | 298.6142231 | 0.530483496 | -0.914620226 | 0.008309 | 0.082536 |
| 18750 Prkca | protein kinase C, alpha | 2358.5206 | 3067.274267 | 1649.66795 | 0.529276271 | -0.91790712 | 6.53E-05 | 0.001658 |
| 22779 Ikzf2 | IKAROS family zinc finger 2 | 10085.911 | 13128.87645 | 7024.945109 | 0.528974294 | -0.91873048 | 0.000297 | 0.005702 |
| 229694 Al504432 | expressed sequence Al504432 | 2586.4581 | 3363.90444 | 1809.011777 | 0.528940345 | -0.918823073 | 3.87E-05 | 0.001068 |
| 20055 Rps16 | ribosomal protein S16 | 12176.264 | 15838.80189 | 8513.726346 | 0.528337368 | -0.920468642 | 6.26E-05 | 0.001605 |
| 23900 Hcst | hematopoietic cell signal transducer | 346.92818 | 452.1678825 | 241.6848336 | 0.527826909 | -0.921863194 | 0.009345 | 0.08911 |
| 57748 Jmy | junction-mediating and regulatory protein | 503.60729 | 655.6000625 | 351.6145137 | 0.526974035 | -0.924196216 | 0.001691 | 0.023635 |
| 383619 Aim2 | absent in melanoma 2 | 754.23099 | 981.5164699 | 526.9455034 | 0.526663349 | -0.925047031 | 0.000548 | 0.009407 |
| 64294 Itm2c | integral membrane protein 2C | 2084.0344 | 2716.633947 | 1451.434761 | 0.525677735 | -0.927749464 | 4.72E-05 | 0.001261 |
| 18796 Plcb2 | phospholipase C, beta 2 | 1723.547 | 2248.042985 | 1199.051085 | 0.525350903 | -0.928646716 | 0.00028 | 0.005473 |
| 20115 Rps7 | ribosomal protein S7 | 11219.801 | 14632.64869 | 7806.952616 | 0.52468927 | -0.930464808 | 3.02E-05 | 0.000853 |
| 66885 Acadsb | acyl-Coenzyme A dehydrogenase, short/branched chain | 328.99184 | 429.4494509 | 228.5324284 | 0.523731176 | -0.933101609 | 0.009579 | 0.009745 |
| 319710 Frmd6 | FERM domain containing 6 | 555.75379 | 727.3295069 | 384.170744 | 0.522030839 | -0.937793058 | 0.002867 | 0.035891 |
| 64009 Syne1 | spectrin repeat containing, nuclear envelope 1 | 1184.4711 | 1548.163964 | 820.7781374 | 0.521701672 | -0.938703038 | 0.000289 | 0.005606 |
| 18749 Prkacb | protein kinase, cAMP dependent, catalytic, beta | 2548.2518 | 3331.50772 | 1764.995802 | 0.520990602 | -0.940670747 | 2.48E-05 | 0.000728 |
| 12523 Cd84 | CD84 antigen | 2322.2162 | 3041.06024 | 1603.372219 | 0.519373572 | -0.945155491 | 7.66E-05 | 0.00189 |
| 54393 Gabbr1 | gamma-aminobutyric acid (GABA) B receptor, 1 | 1032.9796 | 1354.70012 | 711.2591252 | 0.518349713 | -0.94800233 | 0.001522 | 0.021673 |
| 66940 Shisa5 | shisa family member 5 | 21611.18 | 28343.81687 | 14878.54297 | 0.517598837 | -0.950093721 | 0.000168 | 0.0036 |
| 68770 Phtf2 | putative homeodomain transcription factor 2 | 727.24025 | 954.3901378 | 500.0903549 | 0.517248262 | -0.951071203 | 0.001895 | 0.02577 |
| 52808 Tspyl2 | TSPY-like 2 | 376.61909 | 494.4287336 | 258.8094503 | 0.515760642 | -0.95526411 | 0.004853 | 0.054832 |
| 209387 Trim30d | tripartite motif-containing 30D | 506.80936 | 665.4090064 | 348.2097114 | 0.515059764 | -0.955928342 | 0.001225 | 0.018183 |
| 52552 Parp8 | poly (ADP-ribose) polymerase family, member 8 | 492.75228 | 647.5007826 | 338.0037813 | 0.515031637 | -0.956510919 | 0.002531 | 0.032598 |
| 231931 Gimap6 | GTPase, IMAP member 6 | 5154.8903 | 6775.273105 | 3534.50754 | 0.514850794 | -0.957773701 | 0.000832 | 0.013212 |
| 18763 Pkd1 | polycystic kidney disease 1 homolog | 2006.2745 | 2637.882289 | 1374.666707 | 0.51369794 | -0.961007805 | 0.000143 | 0.003171 |
| 58222 Rab37 | RAB37, member RAS oncogene family | 1328.792 | 1748.293646 | 909.2903139 | 0.513148007 | -0.962553092 | 0.000259 | 0.005117 |
| 52187 Rragd | Ras-related GTP binding D | 345.12739 | 453.9013124 | 236.3534622 | 0.513117511 | -0.962638834 | 0.006712 | 0.070138 |
| 108655 Foxp1 | forkhead box P1 | 2984.0422 | 3925.359299 | 2042.75014 | 0.513105962 | -0.962671306 | 5.17E-05 | 0.001367 |
| 67117 Dynlt3 | dynein light chain Ctcx-type 3 | 393.10841 | 517.1525354 | 269.0642786 | 0.511252537 | -0.967891999 | 0.003271 | 0.039823 |
| 23969 Pacsin1 | protein kinase C and casein kinase substrate in neurons 1 | 998.32968 | 1315.268161 | 681.3912019 | 0.511246985 | -0.967907665 | 0.001323 | 0.019309 |
| 76566 Rflnb | reflin B | 476.35538 | 626.9728756 | 325.7378913 | 0.510030487 | -0.971344609 | 0.003812 | 0.045198 |
| 225651 Mppe1 | metallophosphoesterase 1 | 529.3878 | 697.6804408 | 361.0591664 | 0.509779253 | -0.972055435 | 0.001017 | 0.01571 |
| 269589 Syt1 | synaptotagmin-like 1 | 354.72711 | 467.6108448 | 241.8433748 | 0.508881893 | -0.974597236 | 0.004071 | 0.047667 |
| 229445 Cts0 | cathepsin O | 688.55169 | 909.9513877 | 467.152001 | 0.506702071 | -0.98079037 | 0.000275 | 0.005393 |
| 382793 Mtx3 | metaxin 3 | 393.96544 | 520.3002114 | 267.6306776 | 0.505890983 | -0.983101569 | 0.002486 | 0.032109 |
| 16994 Ltb | lymphoxitin B | 5078.6671 | 6717.186865 | 3440.147331 | 0.505584774 | -0.983975077 | 0.000376 | 0.06882 |
| 101197 Zfp956 | zinc finger protein 956 | 351.49062 | 465.9191767 | 237.0620662 | 0.503551436 | -0.989788944 | 0.007405 | 0.075699 |
| 50780 Rgs3 | regulator of G-protein signaling 3 | 1366.6983 | 1808.010596 | 925.3861 | 0.502368283 | -0.993181162 | 6.47E-05 | 0.001648 |
| 17524 Mpp1 | membrane protein, palmitoylated | 816.79105 | 1080.678005 | 552.9040904 | 0.502063716 | -0.994057629 | 0.000687 | 0.011285 |
| 76630 Stambp1 | STAM binding protein like 1 | 739.08101 | 980.8080043 | 497.3540157 | 0.499105838 | -1.002582315 | 0.000112 | 0.002579 |
| 109711 Actn1 | actinin, alpha 1 | 2190.2657 | 2913.116697 | 1467.414675 | 0.496771967 | -1.00934433 | 3.28E-05 | 0.000916 |
| 218734 3830406C1 | RIKEN cDNA 3830406C1 gene | 348.28831 | 463.6186773 | 232.9489403 | 0.495232508 | -1.013822076 | 0.003228 | 0.039487 |
| 17179 Matk | megakaryocyte-associated tyrosine kinase | 377.61413 | 502.2586469 | 252.9696143 | 0.495032373 | -1.01440522 | 0.002634 | 0.033672 |
| 269261 Rpl12 | ribosomal protein L12 | 13473.334 | 17925.01678 | 9021.651206 | 0.494994723 | -1.014514951 | 3.58E-06 | 0.000136 |
| 13041 Ctsw | cathepsin W | 515.10318 | 688.05694 | 342.1494126 | 0.492153789 | -1.022818893 | 0.004591 | 0.052399 |
| 67501 Ccd50 | coiled-coil domain containing 50 | 1730.5151 | 2305.741028 | 1155.289199 | 0.49173279 | -1.024053535 | 7.33E-05 | 0.001821 |
| 207375 Fam120c | family with sequence similarity 120, member C | 373.15901 | 497.9423254 | 248.3757023 | 0.491442949 | -1.024904149 | 0.002281 | 0.029865 |
| 75747 Sesn3 | sestrin 3 | 969.25732 | 1294.89199 | 643.6264611 | 0.490373387 | -1.028045938 | 0.000453 | 0.008049 |
| E1+08 1300002E1 | RIKEN cDNA 13000002E1 gene | 398.13083 | 532.4594718 | 263.8021839 | 0.489753588 | -1.029872032 | 0.005023 | 0.056139 |
| 380912 Zfp395 | zinc finger protein 395 | 503.11185 | 672.3737473 | 333.8499536 | 0.488362831 | -1.033974693 | 0.000655 | 0.010876 |
| 68943 Pink1 | PTEN induced putative kinase 1 | 524.63886 | 701.2308241 | 348.0469042 | 0.487514126 | -1.036484072 | 0.000511 | 0.008827 |
| 20400 Sh2d1a | SH2 domain containing 1A | 529.44722 | 708.2737185 | 350.6207166 | 0.487098178 | -1.037715509 | 0.000341 | 0.00635 |
| 20054 Rps15 | ribosomal protein S15 | 8540.8313 | 11443.33506 | 5638.32761 | 0.484552171 | -1.04527609 | 3.01E-06 | 0.000116 |
| 83408 Gimap3 | GTPase, IMAP family member 3 | 14006 | 18833.46634 | 9178.534307 | 0.481274669 | -1.055067604 | 0.00057 | 0.009715 |
| 72345 Amer1 | APC membrane recruitment 1 | 590.98859 | 794.6958977 | 387.2812908 | 0.481244149 | -1.055159094 | 0.000946 | 0.014826 |
| 69170 1810026BC | RIKEN cDNA 1810026B05 gene | 959.81278 | 1288.789737 | 630.8358241 | 0.481207522 | -1.0552689 | 3.28E-05 | 0.000916 |
| 20452 St8sia4 | ST8 alpha-N-acetyl-neuramidase alpha-2,8-sialyltransferase 4 | 2003.7888 | 2691.285492 | 1316.292095 | 0.480705884 | -1.056773634 | 6.11E-06 | 0.000216 |
| 18987 Pou2f2 | POU domain, class 2, transcription factor 2 | 1453.1703 | 1953.42475 | 952.9159449 | 0.48048209 | -1.05744544 | 8.49E-06 | 0.000288 |
| 50778 Rgs1 | regulator of G-protein signaling 1 | 2256.3886 | 3031.318709 | 1481.458417 | 0.480190214 | -1.058322093 | 1.08E-05 | 0.000356 |
| 630499 H2-K2 | histocompatibility 2, K region locus 2 | 482.51769 | 649.8380736 | 315.1973089 | 0.480050566 | -1.058876961 | 0.008735 | 0.085352 |
| 328329 Mast4 | microtubule associated serine/threonine kinase family memt | 290.89888 | 391.4393936 | 190.3583692 | 0.479984167 | -1.058941277 | 0.0059 | 0.06394 |
| 78473 Skap1 | src family associated phosphoprotein 1 | 2312.3311 | 3113.223413 | 1511.438847 | 0.478585053 | -1.063152754 | 8.85E-06 | 0.0003 |

| | | | | | | | | |
|------------------|---|-----------|-------------|-------------|-------------|--------------|----------|----------|
| 21652 Phf1 | PHD finger protein 1 | 1565.0156 | 2108.583519 | 1021.447588 | 0.47803022 | -1.06482627 | 0.000132 | 0.002949 |
| 67425 Eps8l1 | EPS8-like 1 | 433.57281 | 585.0415488 | 282.1040638 | 0.477511673 | -1.063392093 | 0.004967 | 0.055733 |
| 18439 P2rx7 | purinergic receptor P2X, ligand-gated ion channel, 7 | 2441.295 | 3295.712753 | 1586.877331 | 0.475153073 | -1.073535734 | 0.000285 | 0.005545 |
| 73910 Arhgap18 | Rho GTPase activating protein 18 | 381.52054 | 516.054689 | 246.9746067 | 0.471917674 | -1.083392893 | 0.001829 | 0.025107 |
| 12192 Zfp361 | zinc finger protein 36, C3H type-like 1 | 4395.5427 | 5946.453913 | 2844.631446 | 0.471331905 | -1.085184752 | 2.56E-06 | 1.00E-04 |
| 14680 Gnal | guanine nucleotide binding protein, alpha stimulating, olfact | 284.24751 | 385.2800674 | 183.2149536 | 0.470802372 | -1.086806507 | 0.010314 | 0.096338 |
| 16491 Kcn3 | potassium voltage-gated channel, shaker-related subfamily, I | 637.0023 | 862.5485194 | 411.456073 | 0.469580726 | -1.090554902 | 9.92E-05 | 0.00233 |
| 276905 Armc7 | armadillo repeat containing 7 | 474.33531 | 642.4813657 | 306.189246 | 0.46940493 | -1.091095102 | 0.000511 | 0.008827 |
| 66090 Ypel3 | yippee-like 3 (Drosophila) | 1187.6556 | 1610.335035 | 764.9762164 | 0.468555768 | -1.093707327 | 1.74E-05 | 0.000534 |
| 22782 Slc30a1 | solute carrier family 30 (zinc transporter), member 1 | 295.39211 | 400.8249491 | 189.9592671 | 0.46689061 | -1.098843522 | 0.003402 | 0.041088 |
| 15016 H2-Q5 | histocompatibility 2, Q region locus 5 | 2707.0367 | 3677.709518 | 1736.363923 | 0.465535307 | -1.103037505 | 7.26E-05 | 0.001807 |
| 67731 Fbxo32 | F-box protein 32 | 412.98495 | 561.2146293 | 264.7552792 | 0.465151054 | -1.104228798 | 0.001153 | 0.017307 |
| 57813 Tk2 | thymidine kinase 2, mitochondrial | 641.34788 | 871.2803967 | 411.4153712 | 0.464766267 | -1.105422733 | 6.70E-05 | 0.001696 |
| 216810 Tom1l2 | target of myb1-like 2 (chicken) | 736.24717 | 1001.424805 | 471.0695338 | 0.463958206 | -1.107933242 | 0.000304 | 0.005799 |
| 100737 Dcun1d4 | DCN1, defective in cullin neddylation 1, domain containing 4 | 304.66728 | 414.1869614 | 195.1475937 | 0.463790585 | -1.108454561 | 0.003774 | 0.044819 |
| 19981 Rpl37a | ribosomal protein L37a | 7288.9819 | 9925.09907 | 4652.864778 | 0.460975536 | -1.112739707 | 4.09E-06 | 0.000152 |
| 236733 Usp11 | ubiquitin specific peptidase 11 | 305.16379 | 416.5319077 | 193.7956769 | 0.457315159 | -1.128739353 | 0.002469 | 0.031975 |
| 68521 Fam189b | family with sequence similarity 189, member B | 1347.2226 | 1840.810024 | 853.6350876 | 0.457287188 | -1.128827595 | 2.36E-05 | 0.000699 |
| 29864 Rnf11 | ring finger protein 11 | 330.8436 | 452.4893515 | 209.1978495 | 0.457097771 | -1.129425312 | 0.002039 | 0.027397 |
| 239102 Zfhx2 | zinc finger homeobox 2 | 544.61827 | 745.4339141 | 343.802635 | 0.45692941 | -1.129956793 | 0.008168 | 0.081454 |
| 75540 Fppt | fucose-1-phosphate guanylyltransferase | 284.40476 | 388.6813994 | 180.1281302 | 0.456569597 | -1.131093385 | 0.003447 | 0.041443 |
| 67887 Saraf | store-operated calcium entry-associated regulatory factor | 1718.6498 | 2348.401901 | 1088.897798 | 0.456217842 | -1.132205226 | 1.49E-06 | 1.7E-05 |
| 30843 Fbx12 | F-box and leucine-rich repeat protein 12 | 510.53635 | 699.1471891 | 321.92551 | 0.453293019 | -1.144184152 | 0.000238 | 0.00474 |
| 66412 Arrdc4 | arrestin domain containing 4 | 293.49546 | 402.5947706 | 184.3961473 | 0.452384586 | -1.144378321 | 0.003153 | 0.038609 |
| 20088 Rps24 | ribosomal protein S24 | 12640.673 | 17332.88778 | 7948.457728 | 0.451094368 | -1.148498822 | 9.66E-07 | 4.29E-05 |
| 77889 Lbh | limb-bud and heart | 4915.5443 | 6745.746639 | 3085.341965 | 0.45063754 | -1.149960594 | 1.66E-06 | 6.81E-05 |
| 12226 Btg1 | B cell translocation gene 1, anti-proliferative | 8727.3292 | 11980.596 | 5474.0624 | 0.449981789 | -1.152061478 | 2.84E-07 | 1.43E-05 |
| 67596 Tespa1 | thymocyte expressed, positive selection associated 1 | 828.80499 | 1139.168837 | 518.4411331 | 0.449587381 | -1.153326551 | 0.000164 | 0.003525 |
| 241230 St8sia6 | ST8 alpha-N-acetyl-neuraminate alpha-2,8-sialyltransferase 6 | 735.85946 | 1011.27054 | 460.4483893 | 0.44866841 | -1.156278485 | 0.000235 | 0.004699 |
| 57319 Smpld3a | spingomyelin phosphodiesterase, acid-like 3A | 1651.6913 | 2267.067352 | 1036.315216 | 0.446951553 | -1.161809635 | 0.001822 | 0.025041 |
| 17537 Meis3 | Meis homeobox 3 | 382.33682 | 527.1392669 | 237.5343754 | 0.445618292 | -1.166119639 | 0.001656 | 0.023233 |
| 76432 2310001H17 | RIKEN cDNA 2310001H17 gene | 299.90156 | 414.152855 | 185.6502677 | 0.443924842 | -1.171612649 | 0.0072 | 0.074117 |
| 78185 Ppp1r3fos | protein phosphatase 1, regulatory subunit 3F, opposite strand | 254.92066 | 351.9656729 | 157.8756511 | 0.443747161 | -1.173068287 | 0.010571 | 0.098166 |
| 14581 Gfi1 | growth factor independent 1 | 498.83846 | 688.0178632 | 309.65905 | 0.443420516 | -1.173252574 | 0.000117 | 0.002679 |
| 267019 Rps15a | ribosomal protein S15A | 6651.526 | 9173.305876 | 4129.746086 | 0.442910322 | -1.174913475 | 1.30E-07 | 7.00E-06 |
| 385658 Nxpe3 | neurexophilin and PC-esterase domain family, member 3 | 1761.5069 | 2431.851907 | 1091.161828 | 0.441566258 | -1.179298162 | 1.62E-06 | 6.67E-05 |
| 213439 Gpr174 | G protein-coupled receptor 174 | 2060.8981 | 2848.177291 | 1273.618998 | 0.44064934 | -1.182297051 | 4.34E-06 | 0.000159 |
| 625360 BC147527 | cDNA sequence BC147527 | 413.80122 | 571.7006174 | 255.901827 | 0.440390444 | -1.18314493 | 0.000315 | 0.005955 |
| 16656 Hivep3 | human immunodeficiency virus type I enhancer binding prot | 574.45165 | 794.9679494 | 353.9353579 | 0.439383515 | -1.186447351 | 0.00061 | 0.010266 |
| 15932 Idua | iduronidase, alpha-L- | 297.46065 | 412.18685 | 182.734448 | 0.438279149 | -1.190078049 | 0.002733 | 0.034752 |
| 387609 Zhx2 | zinc fingers and homeoboxes 2 | 748.27669 | 1038.817576 | 457.7357981 | 0.435753102 | -1.198417161 | 0.000911 | 0.01434 |
| 240754 Lax1 | lymphocyte transmembrane adaptor 1 | 963.39196 | 1336.608738 | 590.1751916 | 0.434985241 | -1.200961643 | 1.38E-06 | 5.80E-05 |
| 93694 Clec2d | C-type lectin domain family 2, member d | 1736.4366 | 2411.60638 | 1061.212781 | 0.43439421 | -1.20591537 | 4.92E-07 | 2.31E-05 |
| 22781 Ikzf4 | IKAROS family zinc finger 4 | 1524.469 | 2121.56619 | 927.3717309 | 0.432083559 | -1.210617757 | 0.000159 | 0.003442 |
| 101490 Inpp5f | inositol polyphosphate-5-phosphatase F | 1448.3028 | 2015.586281 | 881.0193596 | 0.430109589 | -1.217223798 | 2.87E-07 | 1.43E-05 |
| 16992 Lta | lymphotoxin A | 761.11367 | 1059.962369 | 462.2649799 | 0.429464031 | -1.21939079 | 5.75E-06 | 0.000206 |
| 215789 Phactr2 | phosphatase and actin regulator 2 | 511.81958 | 713.3690037 | 310.270147 | 0.42770197 | -1.225322242 | 3.12E-05 | 0.000877 |
| 73644 2210039BC | RIKEN cDNA 2210039B01 gene | 274.5137 | 382.493337 | 166.5340712 | 0.427689916 | -1.225362902 | 0.002228 | 0.029322 |
| 21926 Trf | tumor necrosis factor | 271.83834 | 379.301214 | 164.3754733 | 0.427578803 | -1.225737762 | 0.003905 | 0.046148 |
| 21685 Tef | thyrotroph embryonic factor | 498.28234 | 695.2542559 | 301.3104213 | 0.42711229 | -1.227312684 | 4.22E-05 | 0.001151 |
| 19159 Cyth3 | cytohesin 3 | 1154.5266 | 1609.880226 | 699.1729963 | 0.426535867 | -1.229261032 | 7.95E-07 | 3.61E-05 |
| 319734 Cacna2d4 | calcium channel, voltage-dependent, alpha 2/delta subunit 4 | 312.76832 | 437.2636535 | 188.2729784 | 0.426030053 | -1.230972891 | 0.003752 | 0.044592 |
| 74998 Rab11fip2 | RAB11 family interacting protein 2 (class I) | 382.18764 | 533.7641432 | 230.611422 | 0.425947416 | -1.231252756 | 0.000585 | 0.009902 |
| 20649 Sntb1 | syntrophin, basic 1 | 290.81792 | 406.5007293 | 175.1351162 | 0.425350725 | -1.233275181 | 0.002067 | 0.027656 |
| 108052 Slc14a1 | solute carrier family 14 (urea transporter), member 1 | 993.94137 | 1389.06553 | 598.8172188 | 0.424144259 | -1.237373061 | 3.80E-07 | 1.87E-05 |
| 53970 Rfx5 | regulatory factor X, 5 (influences HLA class II expression) | 705.02765 | 986.169971 | 423.8853312 | 0.424002081 | -1.237856751 | 1.16E-05 | 0.000378 |
| 547127 Tmem181t | transmembrane protein 181B, pseudogene | 583.8013 | 815.7517974 | 351.8508086 | 0.423286782 | -1.240292657 | 1.43E-05 | 0.000456 |
| 228765 Sdcbp2 | syndecan binding protein (syntenin) 2 | 212.10667 | 297.5168253 | 126.6965126 | 0.419564064 | -1.253098958 | 0.006535 | 0.068872 |
| 67865 Rgs10 | regulator of G-protein signalling 10 | 1267.3895 | 1780.007952 | 754.7711278 | 0.417120463 | -1.261464005 | 2.46E-07 | 1.27E-05 |
| 52668 Ifi27 | interferon, alpha-inducible protein 27 | 778.21904 | 1093.480603 | 462.9574715 | 0.41685184 | -1.262393392 | 6.31E-07 | 2.90E-05 |
| 70292 Afap1 | actin filament associated protein 1 | 246.31457 | 346.7918344 | 145.8372985 | 0.415930048 | -1.265587182 | 0.004563 | 0.052162 |
| 667373 Ifit1bl1 | interferon induced protein with tetra-tricopeptide repeats 1B 1 | 966.39774 | 1360.760211 | 572.0352774 | 0.415812015 | -1.265966338 | 0.000693 | 0.011347 |
| 1E+08 Zfp831 | zinc finger protein 831 | 1758.2409 | 2476.162286 | 1040.319574 | 0.414510071 | -1.270520941 | 1.28E-05 | 0.000413 |
| 109151 Chd9 | chromodomain helicase DNA binding protein 9 | 957.05708 | 1346.875177 | 567.2389873 | 0.414177386 | -1.271679311 | 2.79E-07 | 1.41E-05 |
| 22183 Zrsr1 | zinc finger (CCCH type), RNA binding motif and serine/arginine | 331.90238 | 467.940369 | 195.8643942 | 0.41172269 | -1.280255136 | 0.000406 | 0.007353 |
| 51799 Rundc3a | RUN domain containing 3A | 227.26865 | 321.5529539 | 132.9843489 | 0.410183504 | -1.285658622 | 0.008983 | 0.087129 |
| 235406 Snx33 | sorting nexin 33 | 305.94582 | 431.7553205 | 180.1363267 | 0.409828984 | -1.286960676 | 0.000635 | 0.010596 |
| 50524 Sall2 | sal-like 2 (Drosophila) | 198.67594 | 280.9262984 | 116.4255179 | 0.407865049 | -1.293836211 | 0.007831 | 0.078965 |
| 240041 Zfp945 | zinc finger protein 945 | 334.1488 | 472.6042106 | 195.6933096 | 0.407849163 | -1.293892404 | 0.000224 | 0.004528 |
| 16401 Itga4 | integrin alpha 4 | 7867.7998 | 11123.70915 | 4611.890374 | 0.40610834 | -1.300063438 | 1.41E-05 | 0.000451 |
| 14809 Grk5 | glutamate receptor, ionotropic, kainate 5 (gamma 2) | 463.43051 | 657.1373089 | 269.7237039 | 0.40506248 | -1.303783637 | 9.96E-05 | 0.002334 |
| 269346 Slc28a2 | solute carrier family 28 (sodium-coupled nucleoside transpor | 1441.8382 | 2044.482434 | 839.1939263 | 0.404920662 | -1.304288834 | 5.81E-07 | 2.70E-05 |
| 53310 Dlg3 | discs, large homolog 3 (Drosophila) | 267.95583 | 380.8461158 | 155.065439 | 0.404180353 | -1.306928901 | 0.007379 | 0.075486 |
| 19782 Rmrp | RNA component of mitochondrial RNAse P | 181.45245 | 257.7683678 | 105.1365251 | 0.40267851 | -1.312299614 | 0.009241 | 0.088689 |
| 209086 Samd9l | sterile alpha motif domain containing 9-like | 3798.8399 | 5400.915621 | 2196.764255 | 0.400860058 | -1.31882942 | 8.07E-08 | 4.57E-06 |
| 234311 Ddx60 | DEAD (Asp-Glu-Ala-Asp) box polypeptide 60 | 542.15028 | 771.0413956 | 313.2591739 | 0.400283368 | -1.320906423 | 7.98E-06 | 0.000274 |
| 17122 Mxd4 | Max dimerization protein 4 | 776.86742 | 1105.088504 | 448.6463315 | 0.40005692 | -1.321722815 | 2.86E-06 | 0.000111 |
| 58894 Zfp862-ps | zinc finger protein 862, pseudogene | 397.6801 | 566.432552 | 228.9169375 | 0.399256033 | -1.324613888 | 0.000204 | 0.004197 |
| 67468 Mmd | monocyte to macrophage differentiation-associated | 552.65132 | 786.0973611 | 319.2052833 | 0.398923329 | -1.325816601 | 3.60E-06 | 0.000136 |
| 235493 Fam214a | family with sequence similarity 214, member A | 585.57963 | 834.002571 | 337.156679 | 0.398569896 | -1.32709 | | |

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|------------------|--|-----------|--------------|-------------|-------------|--------------|----------|----------|
| 26362 Axl | AXL receptor tyrosine kinase | 439.35047 | 625.3808418 | 253.3200986 | 0.396702451 | -1.333870782 | 0.000351 | 0.00648 |
| 20977 Syp | synaptophysin | 213.21744 | 303.9167818 | 122.5180956 | 0.396575249 | -1.334333457 | 0.004179 | 0.048642 |
| 29809 Rabgap1l | RAB GTPase activating protein 1-like | 3033.9131 | 4337.708626 | 1730.11763 | 0.393005082 | -1.347380128 | 9.12E-09 | 6.20E-07 |
| 320204 Etfbkmt | electron transfer flavoprotein beta subunit lysine methyltransferase | 390.17155 | 558.9033894 | 221.4397111 | 0.392395995 | -1.349617778 | 0.000361 | 0.006642 |
| 16832 Ldhb | lactate dehydrogenase B | 404.13343 | 579.0079081 | 229.2589449 | 0.391034299 | -1.354633294 | 0.000514 | 0.008881 |
| 226970 Arhgef4 | Rho guanine nucleotide exchange factor (GEF) 4 | 269.56783 | 386.3912404 | 152.7444192 | 0.389515899 | -1.360245879 | 0.000778 | 0.012495 |
| 232430 Crebl2 | CAMP responsive element binding protein-like 2 | 397.64559 | 570.5687634 | 224.722408 | 0.387382532 | -1.368169194 | 3.82E-05 | 0.001058 |
| 239319 Card6 | caspase recruitment domain family, member 6 | 1164.3429 | 1675.900183 | 652.7855953 | 0.384989735 | -1.377108116 | 1.84E-05 | 0.000562 |
| 104027 Sympo | synaptopodin | 274.92605 | 396.6760748 | 153.1760266 | 0.381148641 | -1.391574362 | 0.000874 | 0.013812 |
| 20449 St8sia1 | ST8 alpha-N-acetyl-neuraminate alpha-2,8-sialyltransferase 1 | 638.29846 | 921.7734685 | 354.8234425 | 0.379783416 | -1.396751187 | 4.08E-07 | 1.97E-05 |
| 72289 Malat1 | metastasis associated lung adenocarcinoma transcript 1 (non coding) | 18285.137 | 26415.87865 | 10154.39628 | 0.377789007 | -1.404347371 | 1.67E-07 | 8.79E-06 |
| 16553 Kif13a | kinesin family member 13A | 315.22202 | 455.4960313 | 174.9480001 | 0.377092021 | -1.40701147 | 0.000122 | 0.002765 |
| 11855 Arhgap5 | Rho GTPase activating protein 5 | 469.19404 | 678.8047252 | 259.5833455 | 0.376803558 | -1.408115507 | 5.19E-06 | 0.000188 |
| 19672 Rcn1 | reticulocalbin 1 | 1083.3152 | 1572.814294 | 593.8160083 | 0.371756723 | -1.427569262 | 8.22E-09 | 5.67E-07 |
| 214854 Neurl3 | neuralized E3 ubiquitin protein ligase 3 | 1283.3424 | 1863.170595 | 703.5142205 | 0.370710037 | -1.431636917 | 8.86E-09 | 6.08E-07 |
| 630146 Cd101 | CD101 antigen | 292.24635 | 424.9553417 | 159.5373375 | 0.370421345 | -1.432760862 | 0.000268 | 0.005275 |
| 101883 Igflr1 | IGF-like family receptor 1 | 745.66048 | 1084.523806 | 406.7971503 | 0.369842085 | -1.435018695 | 4.24E-08 | 2.55E-06 |
| 319636 Fsd1l | fibronectin type III and SPRY domain containing 1-like | 291.84179 | 424.56756346 | 159.0079466 | 0.368989601 | -1.438312747 | 0.000224 | 0.004534 |
| 67260 Cers4 | ceramide synthase 4 | 496.68037 | 722.9691384 | 270.3916061 | 0.368407662 | -1.440625028 | 2.27E-05 | 0.000675 |
| 320495 Lpcfe1 | interaction protein for cytohesin exchange factors 1 | 2891.4376 | 4214.210175 | 1568.665051 | 0.367494607 | -1.442405016 | 4.76E-07 | 2.25E-05 |
| 66109 Tspan13 | tetraspanin 13 | 1707.9564 | 2499.771542 | 916.1411813 | 0.360619348 | -1.471451291 | 8.42E-10 | 6.87E-08 |
| 21943 Tfnsf11 | tumor necrosis factor (ligand) superfamily, member 11 | 413.2821 | 605.434299 | 221.1307701 | 0.357618727 | -1.483505808 | 0.000158 | 0.00343 |
| 67298 Grprsp1 | G protein-coupled receptor associated sorting protein 1 | 653.43174 | 960.8448817 | 364.0186081 | 0.355015331 | -1.494046767 | 6.27E-08 | 3.63E-06 |
| 242484 D630039At | RIKEN cDNA D630039A03 gene | 280.30307 | 412.2600332 | 148.3461002 | 0.35492092 | -1.494430483 | 0.000161 | 0.003486 |
| 78286 Nav2 | neuron navigator 2 | 300.55609 | 440.6703557 | 160.441828 | 0.354694049 | -1.49535297 | 0.00206 | 0.027602 |
| 14357 Dtx1 | deltex 1, E3 ubiquitin ligase | 2533.6893 | 3726.432369 | 1340.946261 | 0.354623431 | -1.495640233 | 8.23E-10 | 6.79E-08 |
| 22690 Zfp28 | zinc finger protein 28 | 149.2616 | 219.715784 | 78.8116219 | 0.353856871 | -1.498762162 | 0.009137 | 0.088138 |
| 12145 Cxcr5 | chemokine (C-X-C motif) receptor 5 | 569.44101 | 839.6572704 | 299.2247501 | 0.353179345 | -1.501527121 | 0.000559 | 0.009588 |
| 16001 Igf1r | insulin-like growth factor I receptor | 1427.5086 | 2102.633002 | 752.384151 | 0.352654338 | -1.503673308 | 5.62E-10 | 4.72E-08 |
| 69548 2310015A1 | RIKEN cDNA 2310015A10 gene | 608.16619 | 899.3427992 | 316.9895906 | 0.346964438 | -1.527140294 | 3.94E-07 | 1.92E-05 |
| 72190 2510009Ec | RIKEN cDNA 2510009E07 gene | 191.55418 | 284.2517621 | 98.85660485 | 0.343064024 | -1.543450253 | 0.002813 | 0.035522 |
| 56176 Pigrp | phosphatidylinositol glycan anchor biosynthesis, class P | 241.30734 | 358.1824716 | 124.4322022 | 0.342468788 | -1.545955584 | 0.000302 | 0.005773 |
| 211135 D130040H | RIKEN cDNA D130040H23 gene | 128.22129 | 190.4675048 | 65.97506522 | 0.341547666 | -1.54984116 | 0.009364 | 0.089174 |
| 16543 Mdfic | MyoD family inhibitor domain containing | 969.27256 | 1442.437311 | 496.1078113 | 0.338602178 | -1.56233684 | 8.33E-10 | 6.84E-08 |
| 74734 Rhoh | ras homolog family member H | 2016.4972 | 3005.991335 | 1027.003072 | 0.336655032 | -1.570657066 | 1.15E-10 | 1.06E-08 |
| 15001 H2-Oa | histocompatibility 2, O region alpha locus | 132.67456 | 198.0464473 | 67.30267322 | 0.336198205 | -1.572616074 | 0.008368 | 0.082763 |
| 252883 Tox | thymocyte selection-associated high mobility group box | 941.72476 | 1406.605152 | 476.8443591 | 0.33480091 | -1.578624646 | 1.50E-07 | 7.97E-06 |
| 19009 Pou6f1 | POU domain, class 6, transcription factor 1 | 478.13448 | 713.9207625 | 242.3481893 | 0.334746343 | -1.5788598 | 1.29E-06 | 5.49E-05 |
| 13998 Fgd6 | FYVE, RhoGEP and PH domain containing 6 | 189.0914 | 282.1524164 | 96.0308351 | 0.334197266 | -1.581228163 | 0.001622 | 0.022844 |
| 236604 Pisd-ps1 | phosphatidylserine decarboxylase, pseudogene 1 | 1925.8392 | 2880.738772 | 970.9397063 | 0.332905867 | -1.586813797 | 4.69E-07 | 2.23E-05 |
| 12335 Capn3 | calpain 3 | 394.06051 | 590.0901019 | 198.0309081 | 0.330675748 | -1.596510853 | 7.38E-06 | 0.000257 |
| 12162 Bmp7 | bone morphogenetic protein 7 | 221.00917 | 331.2209016 | 110.7974414 | 0.328020811 | -1.608140746 | 0.000573 | 0.009748 |
| 67426 Coq8a | coenzyme Q8A | 146.94503 | 220.8043556 | 73.08569493 | 0.327514336 | -1.618320875 | 0.004491 | 0.05154 |
| 96875 Prg4 | proteoglycan 4 (megakaryocyte stimulating factor, articular s | 264.13694 | 396.9427563 | 131.3311265 | 0.324788201 | -1.622428873 | 9.50E-05 | 0.002246 |
| 14168 Fgf13 | fibroblast growth factor 13 | 126.20919 | 190.4100323 | 62.00835363 | 0.322096226 | -1.634436339 | 0.007214 | 0.074209 |
| 18186 Nrp1 | neuropilin 1 | 3071.5995 | 4637.223278 | 1505.975768 | 0.318358555 | -1.65127556 | 1.66E-09 | 1.29E-07 |
| 11732 Ank | progressive ankylosis | 328.51015 | 496.4809472 | 160.5393441 | 0.317962385 | -1.653071989 | 4.16E-06 | 0.000154 |
| 319278 A230050P2 | RIKEN cDNA A230050P20 gene | 274.23553 | 418.158048 | 130.3130204 | 0.305937789 | -1.708689775 | 2.93E-05 | 0.000834 |
| 14263 Fmo5 | flavin containing monooxygenase 5 | 137.16295 | 209.5156379 | 64.81026442 | 0.305440753 | -1.711035533 | 0.003837 | 0.045459 |
| 15903 Id3 | inhibitor of DNA binding 3 | 471.59744 | 720.573975 | 222.6209048 | 0.305205018 | -1.71214941 | 7.18E-08 | 4.10E-06 |
| 64931 Izumo1r | IZUMO1 receptor, JUNO | 4758.2987 | 7278.153608 | 238.4438385 | 0.302597598 | -1.724527561 | 1.74E-14 | 2.45E-12 |
| 11871 Art2a-ps | ADP-ribosyltransferase 2a, pseudogene | 272.09359 | 417.5070549 | 126.6801197 | 0.30016541 | -1.736170357 | 5.81E-05 | 0.001499 |
| 14860 Gsta4 | glutathione S-transferase, alpha 4 | 158.94962 | 244.3412276 | 73.55800413 | 0.298249496 | -1.745408569 | 0.003259 | 0.039766 |
| 22691 Zscan2 | zinc finger and SCAN domain containing 2 | 189.86157 | 292.3429867 | 87.3801615 | 0.296734801 | -1.752753957 | 0.001476 | 0.021179 |
| 225010 Lclat1 | lysocardiolipin acyltransferase 1 | 783.70139 | 1205.9574718 | 361.4453701 | 0.295310816 | -1.759693897 | 8.64E-11 | 8.04E-09 |
| 353187 Nr1d2 | nuclear receptor subfamily 1, group D, member 2 | 504.50502 | 778.4475207 | 230.5625245 | 0.291589678 | -1.777988443 | 8.97E-09 | 6.12E-07 |
| 73182 Pear1 | platelet endothelial aggregation receptor 1 | 1015.9749 | 1568.348921 | 463.6007844 | 0.291360576 | -1.779122414 | 3.55E-12 | 3.78E-10 |
| 209683 Ttc28 | tetratricopeptide repeat domain 28 | 839.38832 | 1298.761158 | 380.0154893 | 0.289914971 | -1.786298259 | 3.28E-05 | 0.000916 |
| 12524 Cd86 | CD86 antigen | 352.6525 | 545.0344652 | 160.2705439 | 0.289077102 | -1.790473757 | 3.48E-07 | 1.72E-05 |
| 21578 Cnksr3 | Cnksr family member 3 | 216.67967 | 335.8874282 | 97.47190213 | 0.287627002 | -1.797728976 | 0.000404 | 0.007315 |
| 74007 Btb11 | BTB (POZ) domain containing 11 | 223.06917 | 345.7749254 | 100.363413 | 0.287089648 | -1.800426785 | 0.000231 | 0.004652 |
| 1E+08 Gm3002 | alpha-takusai pseudogene | 3525.8563 | 5483.137223 | 1568.575451 | 0.282266112 | -1.824872162 | 6.41E-10 | 5.32E-08 |
| 225825 Cd226 | CD226 antigen | 584.07868 | 909.4049991 | 258.7523556 | 0.281124921 | -1.830716744 | 1.17E-09 | 9.38E-08 |
| 140742 Sesn1 | sestrin 1 | 1175.1631 | 1831.1603838 | 519.0194352 | 0.280037319 | -1.836308997 | 1.32E-09 | 1.05E-07 |
| 622675 Zfp827 | zinc finger protein 827 | 456.74754 | 714.095865 | 199.399218 | 0.275926796 | -1.857642528 | 1.26E-07 | 6.88E-06 |
| 20408 Sh3gl3 | SH3-domain GRB2-like 3 | 154.5613 | 242.2679331 | 66.85467292 | 0.273549324 | -1.870127104 | 0.001256 | 0.018565 |
| 56490 Zbtb20 | zinc finger and BTB domain containing 20 | 121.16027 | 190.216534 | 52.10400958 | 0.270191213 | -1.88794734 | 0.002154 | 0.028501 |
| 237886 Slfn9 | schlafen 9 | 451.1127 | 708.169114 | 194.0562806 | 0.269492368 | -1.891683676 | 3.56E-09 | 2.63E-07 |
| 75812 Tasp1 | thiopase, threonine aminopeptidase 1 | 624.54756 | 980.6091357 | 268.4859764 | 0.269153901 | -1.89349676 | 6.92E-12 | 7.17E-10 |
| 18484 Pam | peptidylglycine alpha-amidating monooxygenase | 135.61816 | 213.1782811 | 58.05803495 | 0.26880354 | -1.895375958 | 0.001267 | 0.018678 |
| 107771 Bmyc | brain expressed myelocytomatosis oncogene | 302.10914 | 475.2656555 | 128.9526266 | 0.267957367 | -1.89992316 | 1.53E-06 | 6.32E-05 |
| 67168 Lpar6 | lysophosphatidic acid receptor 6 | 504.70351 | 792.6827607 | 216.7242547 | 0.267652838 | -1.901565146 | 9.76E-08 | 5.44E-06 |
| 84544 Cd96 | CD96 antigen | 1616.764 | 2556.307109 | 677.2209813 | 0.261606947 | -1.934527241 | 3.00E-11 | 2.93E-09 |
| 68151 Wls | wntless homolog (Drosophila) | 704.12438 | 1112.256684 | 295.9920733 | 0.260902141 | -1.93841931 | 1.30E-10 | 1.19E-08 |
| 70574 Cpm | carboxypeptidase M | 94.97907 | 150.3975785 | 39.56056195 | 0.26085255 | -1.938693556 | 0.004176 | 0.048642 |
| 17075 Epcam | epithelial cell adhesion molecule | 125.63035 | 198.757598 | 52.5031163 | 0.260468841 | -1.940817295 | 0.001319 | 0.019274 |
| 12522 Cd83 | CD83 antigen | 701.52632 | 1111.540563 | 291.5120703 | 0.257594553 | -1.956826006 | 3.35E-13 | 4.14E-11 |
| 17181 Matn2 | matrilin 2 | 109.95753 | 174.255789 | 45.66947856 | 0.256285338 | -1.964177148 | 0.004578 | 0.02288 |
| 52662 Ldlrad4 | low density lipoprotein receptor class A domain containing 4 | 329.93077 | 524.0099867 | 135.8515509 | 0.255499359 | -1.968608421 | 6.56E-08 | 3.79E-06 |
| 17951 Naip5 | NLR family, apoptosis inhibitory protein 5 | 571.48279 | 905.6013597 | 237.3642132 | 0.255422759 | -1.969041017 | 0.00023 | 0.004634 |
| 230822 Ncmap | noncompact myelin associated protein | 134.77268 | | | | | | |

| | | | | | | | | |
|------------------|--|-----------|-------------|--------------|-------------|--------------|----------|----------|
| 1E+08 Ddx43 | DEAD (Asp-Glu-Ala-Asp) box polypeptide 43 | 177.936 | 283.2425085 | 72.62949817 | 0.254072922 | -1.97668547 | 0.000259 | 0.005115 |
| 1E+08 Gm10406 | predicted gene 10406 | 140.57498 | 224.2160281 | 56.93393596 | 0.252133317 | -1.987741325 | 0.001669 | 0.023397 |
| 244418 D8Ertd82e | DNA segment, Chr 8, ERATO Doi 82, expressed | 389.15171 | 620.7533919 | 157.5500367 | 0.250332156 | -1.998084473 | 4.64E-09 | 3.37E-07 |
| 214547 She | src homology 2 domain-containing transforming protein E | 315.18915 | 503.233794 | 127.1445129 | 0.248831175 | -2.006760846 | 4.92E-08 | 2.88E-06 |
| 76686 Clip3 | CAP-GLY domain containing linker protein 3 | 57.632808 | 92.50832215 | 22.75729366 | 0.244817675 | -2.030220375 | 0.010002 | 0.093966 |
| 12494 Cd38 | CD38 antigen | 183.92167 | 294.016259 | 73.82708479 | 0.244594932 | -2.031533585 | 0.0021 | 0.027984 |
| 18566 Pdccl1 | programmed cell death 1 | 391.06692 | 626.8970074 | 155.236828 | 0.244528868 | -2.031923302 | 4.59E-09 | 3.36E-07 |
| 229055 Zbtb10 | zinc finger and BTB domain containing 10 | 158.68962 | 254.7436921 | 62.63555406 | 0.242388995 | -2.044603895 | 0.000241 | 0.004788 |
| 66860 Tanc1 | tetratricopeptide repeat, ankyrin repeat and coiled-coil conta | 133.39289 | 214.4618716 | 52.32391151 | 0.241185074 | -2.051787465 | 0.000656 | 0.010876 |
| 13849 Ephx1 | epoxide hydrolase 1, microsomal | 1401.7906 | 2255.174373 | 548.406853 | 0.24033416 | -2.056886376 | 3.62E-12 | 3.83E-10 |
| 68259 Ift80 | intraflagellar transport 80 | 4768.5446 | 7671.577803 | 1865.511301 | 0.240187462 | -2.057767252 | 6.77E-11 | 6.38E-09 |
| 238276 Akap5 | A kinase (PRKA) anchor protein 5 | 64.35649 | 104.0008787 | 24.7121021 | 0.237847645 | -2.071890354 | 0.010373 | 0.096762 |
| 103712 G330403KC | G330403K07 gene | 66.093641 | 106.9864777 | 25.20080421 | 0.235375406 | -2.086964513 | 0.008328 | 0.082536 |
| 333050 Ksr2 | kinase suppressor of ras 2 | 80.023359 | 129.4619939 | 30.58472387 | 0.233374961 | -2.099278316 | 0.002754 | 0.034979 |
| 319625 Galm | galactose mutarotase | 265.80125 | 429.6506046 | 101.9519052 | 0.232930927 | -2.102025889 | 1.40E-06 | 5.86E-05 |
| 108154 Adams6 | a disintegrin-like and metalloproteinase (reprolysin type) with | 923.65306 | 1497.019499 | 350.2866252 | 0.230594124 | -2.116572343 | 5.11E-15 | 7.77E-13 |
| 97086 Slc9b2 | solute carrier family 9, subfamily B (NHA2), cation proton anti | 61.939295 | 100.9420966 | 22.93649378 | 0.227029837 | -2.13904618 | 0.007604 | 0.077137 |
| 23959 Ntl5c | 5' nucleotidase, ecto | 1205.763 | 1964.630344 | 446.8955931 | 0.223413907 | -2.1622091 | 1.27E-17 | 2.54E-15 |
| 74443 P4htm | prolyl 4-hydroxylase, transmembrane (endoplasmic reticulum | 63.498235 | 104.0192745 | 22.97719559 | 0.220152515 | -2.183424772 | 0.006564 | 0.069128 |
| 18406 Orm2 | orosomucoid 2 | 82.078895 | 134.1024694 | 30.05531995 | 0.220046229 | -2.184121446 | 0.002064 | 0.027629 |
| 67182 Pdzk1p1 | PDZK1 interacting protein 1 | 49.769928 | 81.31118332 | 18.22867282 | 0.219520694 | -2.187571147 | 0.008354 | 0.082733 |
| 71223 Gpr15 | G protein-coupled receptor 15 | 54.119588 | 88.77249572 | 19.46668076 | 0.217784202 | -2.199028787 | 0.008811 | 0.085915 |
| 54486 Hpgds | hemopoietic prostaglandin D synthase | 68.657619 | 112.3668402 | 24.94839694 | 0.216707784 | -2.206177117 | 0.00701 | 0.07257 |
| 81840 Sorcs2 | sortilin-related VPS10 domain containing receptor 2 | 240.02496 | 394.1847621 | 85.86515692 | 0.215639509 | -2.213306567 | 3.71E-05 | 0.001031 |
| 73895 4930431PC | RIKEN cDNA 4930431P03 gene | 318.82985 | 523.6858327 | 113.9738649 | 0.214861495 | -2.218521134 | 8.13E-09 | 5.66E-07 |
| 54195 Gucy1b3 | guanylate cyclase 1, soluble, beta 3 | 58.713587 | 96.30699128 | 21.12018367 | 0.214846821 | -2.218619662 | 0.004921 | 0.055423 |
| 14049 Eya2 | EYA transcriptional coactivator and phosphatase 2 | 56.301738 | 92.68879493 | 9.191468107 | 0.211637267 | -2.240334401 | 0.006295 | 0.067244 |
| 16206 Lrig1 | leucine-rich repeats and immunoglobulin-like domains 1 | 1350.7288 | 2227.089004 | 474.3686237 | 0.209722915 | -2.253443593 | 1.38E-18 | 2.84E-16 |
| 1.0E+08 Gm16157 | predicted gene 16157 | 60.483975 | 100.3853675 | 20.5825833 | 0.202251616 | -2.305776868 | 0.002874 | 0.035944 |
| 329421 Myo3b | myosin IIIB | 193.07487 | 321.2498807 | 64.89986448 | 0.199265398 | -2.327236881 | 7.94E-06 | 0.000273 |
| 231646 Myo1h | myosin 1H | 104.94948 | 175.5920121 | 34.30694416 | 0.19479274 | -2.359988185 | 0.002148 | 0.028443 |
| 212531 Sh3bgri2 | SH3 domain binding glutamic acid-rich protein like 2 | 302.21651 | 508.1095297 | 96.32394942 | 0.187616883 | -2.414138439 | 3.48E-09 | 2.59E-07 |
| 11905 Serpinc1 | serine (or cysteine) peptidase inhibitor, clade C (antithrombin) | 62.179768 | 105.0231579 | 19.3363789 | 0.182923379 | -2.450688621 | 0.001573 | 0.022219 |
| 19739 Rgs9 | regulator of G-protein signaling 9 | 263.92439 | 445.8361389 | 82.01263476 | 0.181587139 | -2.461260604 | 2.73E-08 | 1.73E-06 |
| 13518 Dst | dystonin | 1244.4309 | 2101.572046 | 387.2897677 | 0.181382442 | -2.462893285 | 7.62E-22 | 2.14E-19 |
| 11872 Art2b | ADP-ribosyltransferase 2b | 487.45815 | 825.9921849 | 148.9241219 | 0.178919059 | -2.48262102 | 4.51E-08 | 2.67E-06 |
| 547176 Zch12b | zinc finger CCHC-type containing 12B | 35.662038 | 60.47483304 | 10.849424292 | 0.177279287 | -2.495899714 | 0.006608 | 0.069498 |
| 19217 Ptger2 | prostaglandin E receptor 2 (subtype EP2) | 419.51699 | 711.9547575 | 127.0792218 | 0.176551991 | -2.501835002 | 3.12E-11 | 3.00E-09 |
| 15002 H2-Ob | histocompatibility 2, O region beta locus | 438.93415 | 745.478361 | 132.3899343 | 0.174816333 | -2.516088116 | 4.15E-14 | 5.66E-12 |
| 24063 Spry1 | sprouty homolog 1 (Drosophila) | 240.47215 | 408.1192142 | 72.8250912 | 0.174683542 | -2.517184406 | 1.46E-07 | 7.77E-06 |
| 13508 Dscam | Down syndrome cell adhesion molecule | 51.549319 | 87.81037416 | 15.2882637 | 0.174391019 | -2.51960235 | 0.003406 | 0.041091 |
| 260297 Prt1 | proline-rich transmembrane protein 1 | 34.816417 | 59.41079206 | 10.22204249 | 0.173820768 | -2.524327634 | 0.007882 | 0.079147 |
| 20751 Dtx4 | deltex 4, E3 ubiquitin ligase | 222.11479 | 378.9142173 | 65.31535944 | 0.169048055 | -2.56449468 | 1.35E-07 | 7.27E-06 |
| 89867 Sec16b | SEC16 homolog B (<i>S. cerevisiae</i>) | 35.026333 | 60.00162759 | 10.05103882 | 0.164382927 | -2.604867628 | 0.008888 | 0.086497 |
| 12517 Cd72 | CD72 antigen | 154.07455 | 265.9251203 | 42.22397442 | 0.157995066 | -2.662048592 | 1.78E-05 | 0.000545 |
| 74931 4930481A1 | RIKEN cDNA 4930481A15 gene | 73.721752 | 127.3496226 | 20.09388119 | 0.155963911 | -2.680715855 | 0.000279 | 0.005448 |
| 54324 Arhgef5 | Rho guanine nucleotide exchange factor (GEF) 5 | 94.569161 | 163.579118 | 25.55920445 | 0.1548938 | -2.6906487 | 0.000118 | 0.002695 |
| 353342 Peg13 | paternally expressed 13 | 385.49402 | 668.1647154 | 102.8233164 | 0.151460602 | -2.722985525 | 9.14E-14 | 1.19E-11 |
| 67703 Kirrel3 | kin of IRRE like 3 (Drosophila) | 35.235839 | 61.31663941 | 9.15503821 | 0.151458488 | -2.723005662 | 0.00417 | 0.048642 |
| 19885 Rorc | RAR-related orphan receptor gamma | 34.652152 | 60.3284667 | 8.975838088 | 0.150832277 | -2.728982906 | 0.007491 | 0.076362 |
| 18671 Abcb1a | ATP-binding cassette, sub-family B (MDR/TAP), member 1A | 400.69347 | 698.1563313 | 103.2306149 | 0.145254696 | -2.783343292 | 5.37E-15 | 8.08E-13 |
| 320910 Itgb8 | integrin beta 8 | 155.16163 | 271.5120066 | 38.81125612 | 0.140911003 | -2.827143831 | 1.35E-06 | 5.69E-05 |
| 71839 Osgin1 | oxidative stress induced growth inhibitor 1 | 182.82428 | 321.6000859 | 44.048481 | 0.135993439 | -2.878391048 | 2.53E-07 | 1.30E-05 |
| 79221 Hdac9 | histone deacetylase 9 | 146.30715 | 257.6637633 | 34.9505375 | 0.133112568 | -2.909281309 | 7.83E-06 | 0.00027 |
| 22138 Titin | titin | 681.88131 | 1201.594364 | 162.1682576 | 0.132801046 | -2.912661582 | 5.01E-22 | 1.46E-19 |
| 268595 D430019H | RIKEN cDNA D430019H gene | 34.493045 | 60.97945983 | 8.006630326 | 0.127041391 | -2.976629477 | 0.008806 | 0.085915 |
| 210789 Tbc1d4 | TBC1 domain family, member 4 | 2049.7404 | 3632.690321 | 466.5004917 | 0.126485611 | -2.982954821 | 6.84E-32 | 7.69E-29 |
| 217733 Tmem63c | transmembrane protein 63c | 23.300459 | 41.44509578 | 5.155821276 | 0.126284285 | -2.985252975 | 0.00396 | 0.046694 |
| 56739 Rec8 | REC8 meiotic recombination protein | 165.58025 | 294.9312486 | 36.22924725 | 0.12155866 | -3.040275423 | 9.81E-08 | 5.44E-06 |
| 245607 Grasp2 | G protein-coupled receptor associated sorting protein 2 | 48.737561 | 86.98427845 | 10.49084267 | 0.119819684 | -3.061063166 | 0.00038 | 0.006929 |
| 23890 Grp34 | G protein-coupled receptor 34 | 262.02701 | 469.4982964 | 54.55571658 | 0.114056312 | -3.132181808 | 1.33E-11 | 1.33E-09 |
| 320237 Smim012a | small integral membrane protein 10 like 2A | 45.213819 | 81.04450181 | 9.383136592 | 0.113031136 | -3.145207852 | 0.000792 | 0.012702 |
| 64297 Gprc5b | G protein-coupled receptor, family C, group 5, member B | 43.758425 | 78.44321441 | 9.073634605 | 0.112334469 | -3.154127424 | 0.002166 | 0.028629 |
| 241275 Noxa1 | NADPH oxidase activator 1 | 44.949306 | 81.1019743 | 8.796637965 | 0.110807868 | -3.17386777 | 0.00639 | 0.060809 |
| 11468 Actg2 | actin, gamma 2, smooth muscle, enteric | 60.633034 | 109.3498199 | 11.9162472 | 0.107899315 | -3.212242394 | 0.000151 | 0.003307 |
| 57764 Ntn4 | netrin 4 | 76.019577 | 137.1010939 | 14.93805992 | 0.107657312 | -3.215481792 | 2.22E-05 | 0.000662 |
| 381417 Gm14085 | predicted gene 14085 | 303.68091 | 548.2449838 | 59.11684278 | 0.106849932 | -3.2263421 | 2.20E-13 | 2.77E-11 |
| 56464 Ctsf | cathepsin F | 14.1582 | 25.69369019 | 2.622710669 | 0.106097502 | -3.236537405 | 0.008816 | 0.085915 |
| 641454 5830444BC | RIKEN cDNA 5830444B04 gene | 16.878707 | 30.55640029 | 3.201021839 | 0.105214982 | -3.248587942 | 0.005132 | 0.057317 |
| 12121 Bicd1 | bicaudal D homolog 1 (Drosophila) | 95.341132 | 172.1358927 | 18.54637126 | 0.104571158 | -3.257443104 | 0.00132 | 0.002949 |
| 60596 Gucy1a3 | guanylate cyclase 1, soluble, alpha 3 | 191.3651 | 347.6493514 | 35.08083937 | 0.099030841 | -3.3359783 | 1.40E-09 | 1.10E-07 |
| 22755 Zfp93 | zinc finger protein 93 | 20.055648 | 36.60078145 | 3.510514825 | 0.098247979 | -3.347428586 | 0.009064 | 0.087742 |
| 243277 Adgrd1 | adhesion G protein-coupled receptor D1 | 12.18579 | 22.23757085 | 2.134008559 | 0.097937855 | -3.351989592 | 0.009771 | 0.092206 |
| 94047 Cccr6 | cat eye syndrome chromosome region, candidate 6 | 137.27096 | 250.8561291 | 23.68579962 | 0.094753201 | -3.399681505 | 4.28E-06 | 0.000157 |
| 19259 Ptpn5 | protein tyrosine phosphatase, non-receptor type 5 | 72.469659 | 132.8031682 | 12.13614912 | 0.09059663 | -3.464398811 | 1.07E-05 | 0.000354 |
| 1.0E+08 Gm14718 | predicted gene 14718 | 16.802592 | 30.98247372 | 2.622710669 | 0.088502344 | -3.498140529 | 0.005559 | 0.060917 |
| 232232 Hdac11 | histone deacetylase 11 | 34.406641 | 63.20946119 | 5.603821582 | 0.086703031 | -3.527773763 | 0.000627 | 0.010486 |
| 19214 Ptgrdr | prostaglandin D receptor | 44.240103 | 81.7686781 | 6.71527665 | 0.082650044 | -3.596840601 | 0.000146 | 0.003233 |
| 106763 Ttbk1 | tau tubulin kinase 1 | 36.63013 | 67.65643834 | 5.603821582 | 0.081105906 | -3.623985185 | 0.000373 | 0.006844 |
| 433632 Gm5544 | predicted gene 5544 | 11.504472 | 21.45323697 | 1.555706389 | 0.0 | | | |

| | | | | | | | | |
|--|---|-----------|-------------|-------------|-------------|--------------|----------|----------|
| 110784 Nr3c2 | nuclear receptor subfamily 3, group C, member 2 | 18.790114 | 35.1367182 | 2.443510546 | 0.074104261 | -3.754299698 | 0.003922 | 0.046316 |
| 320302 Glt28d2 | glycosyltransferase 28 domain containing 2 | 12.464898 | 23.46368883 | 1.466106327 | 0.068979125 | -3.857696355 | 0.007343 | 0.075221 |
| 230612 Slc5a9 | solute carrier family 5 (sodium/glucose cotransporter), meml | 94.254199 | 176.5514485 | 11.956949 | 0.067764565 | -3.883325124 | 2.70E-07 | 1.37E-05 |
| 14468 Gbp2b | guanylate binding protein 2b | 121.71921 | 228.2315616 | 15.2068601 | 0.065610318 | -3.929933482 | 3.30E-08 | 2.03E-06 |
| 72386 2610035D: RIKEN cDNA 2610035D17 gene | | 131.26387 | 246.7018847 | 15.82586407 | 0.063805836 | -3.970167804 | 3.92E-09 | 2.88E-07 |
| 69030 1810006J0: RIKEN cDNA 1810006J02 gene | | 36.90149 | 69.35576176 | 4.447217241 | 0.063168153 | -3.984658791 | 0.000101 | 0.00236 |
| 22625 Map3k19 | mitogen-activated protein kinase kinase kinase 19 | 35.265375 | 66.62113361 | 3.909616873 | 0.061906223 | -4.013771745 | 0.000498 | 0.008664 |
| 214685 Chadl | chondroadherin-like | 14.621716 | 27.77732522 | 1.466106327 | 0.058941694 | -4.084567668 | 0.003271 | 0.039823 |
| 75051 Ccdc173 | coiled-coil domain containing 173 | 34.79879 | 66.17666441 | 3.420914764 | 0.055038682 | -4.183410261 | 0.000442 | 0.00789 |
| 231214 Ccd2a | coiled-coil and C2 domain containing 2A | 22.452865 | 42.95092085 | 1.954808437 | 0.049968367 | -4.322841129 | 0.000713 | 0.011621 |
| 14231 Fkbp7 | FK506 binding protein 7 | 12.84868 | 24.54075538 | 1.156604341 | 0.049184442 | -4.345654141 | 0.005228 | 0.050828 |
| 117606 Boc | biregional cell adhesion molecule-related/down-regulated by | 19.261555 | 36.87780345 | 1.64530645 | 0.046585416 | -4.423977828 | 0.000673 | 0.011103 |
| 53896 Slc7a10 | solute carrier family 7 (cationic amino acid transporter, y+ sy | 28.032955 | 53.84230144 | 2.223608621 | 0.041409949 | -4.593878769 | 9.84E-05 | 0.00232 |
| 109979 Art3 | ADP-ribosyltransferase 3 | 31.238104 | 60.25259844 | 2.223608621 | 0.037354059 | -4.742591186 | 4.89E-05 | 0.001301 |
| 68404 Nrn1 | neuritin 1 | 177.77634 | 342.7893264 | 12.76334955 | 0.036195024 | -4.788064826 | 4.11E-12 | 1.58E-10 |
| 93843 Pncc | pregnancy upregulated non-ubiquitously expressed CaM kinase | 16.793009 | 32.60861398 | 0.977404218 | 0.035011778 | -4.836015868 | 0.000533 | 0.009185 |
| 73324 Clhc1 | clathrin heavy chain linker domain containing 1 | 9.2795015 | 18.07030079 | 0.488702109 | 0.034765662 | -4.846193132 | 0.003065 | 0.037851 |
| 1.01E+08 Gm15408 | predicted gene 15408 | 11.326545 | 22.16438768 | 0.488702109 | 0.027853364 | -5.166004598 | 0.003115 | 0.038239 |
| 11854 Rhod | ras homolog family member D | 11.753961 | 23.01921963 | 0.488702109 | 0.027645367 | -5.176818459 | 0.001744 | 0.024197 |
| 225872 Npas4 | neuronal PAS domain protein 4 | 96.438649 | 188.0309796 | 4.846319289 | 0.025753099 | -5.27911014 | 2.58E-10 | 2.27E-08 |
| 75625 Mageh1 | melanoma antigen, family H, 1 | 14.244484 | 27.91066598 | 0.578302171 | 0.023217173 | -5.428663903 | 0.000378 | 0.006914 |
| 73748 Gadl1 | glutamate decarboxylase-like 1 | 95.772313 | 187.5861104 | 3.958515132 | 0.021118888 | -5.56532235 | 0.000402 | 0.007288 |
| 270192 Rab6b | RAB6B, member RAS oncogene family | 298.90238 | 585.3998093 | 12.40494931 | 0.020828035 | -5.585329478 | 1.54E-29 | 1.41E-26 |
| 104307 Rnu12 | RNA U12, small nuclear | 5.0678915 | 10.13578295 | 0 | 0.011756634 | -6.410381103 | 0.009131 | 0.088138 |
| 74179 1700030A1: RIKEN cDNA 1700030A11 gene | | 5.1933769 | 10.3867538 | 0 | 0.011580679 | -6.43213633 | 0.009226 | 0.088607 |
| 69120 1810021B2: RIKEN cDNA 1810021B22 gene | | 5.3410858 | 10.68217156 | 0 | 0.011298002 | -6.467788488 | 0.009643 | 0.091172 |
| 1E+08 Snora23 | small nucleolar RNA, H/ACA box 23 | 5.2822707 | 10.56454148 | 0 | 0.011143891 | -6.487603102 | 0.006722 | 0.070192 |
| 13599 Ecel1 | endothelin converting enzyme-like 1 | 5.3044942 | 10.6089884 | 0 | 0.011041565 | -6.500911529 | 0.007093 | 0.073328 |
| 71907 Serpina9 | serine (or cysteine) peptidase inhibitor, clade A (alpha-1 anti | 5.4887947 | 10.97758933 | 0 | 0.011024977 | -6.503080564 | 0.009305 | 0.088957 |
| 17112 Tm4sf1 | transmembrane 4 superfamily member 1 | 5.4887947 | 10.97758933 | 0 | 0.011024894 | -6.503091351 | 0.009318 | 0.089025 |
| 68553 Col6a4 | collagen, type VI, alpha 4 | 5.5332416 | 11.06648317 | 0 | 0.010836873 | -6.527907625 | 0.007232 | 0.074291 |
| 16619 Klk1b27 | kallikrein 1-related peptidase b27 | 5.7253974 | 11.45079477 | 0 | 0.01040941 | -6.585967901 | 0.005659 | 0.061874 |
| 233549 Mogat2 | monoacylglycerol O-acyltransferase 2 | 6.4194949 | 12.83898976 | 0 | 0.009473238 | -6.71926728 | 0.008479 | 0.08352 |
| 626275 A930012L1: RIKEN cDNA A930012L18 gene | | 6.4417183 | 12.88343668 | 0 | 0.009415353 | -6.730769101 | 0.006215 | 0.066507 |
| 627872 Dnah7a | dynein, axonemal, heavy chain 7A | 258.22064 | 511.8637519 | 4.577519105 | 0.009315161 | -6.746203505 | 7.58E-29 | 6.15E-26 |
| 75381 4930598F1: RIKEN cDNA 4930598F16 gene | | 6.7371361 | 13.47427221 | 0 | 0.009028453 | -6.791305488 | 0.007127 | 0.073578 |
| 237010 Khlh4 | kelch-like 4 | 7.3580504 | 14.71610086 | 0 | 0.008118399 | -6.944589093 | 0.002126 | 0.028258 |
| 1E+08 Snord90 | small nucleolar RNA, C/D box 90 | 7.6312447 | 15.26248947 | 0 | 0.007887735 | -6.986173122 | 0.002241 | 0.029439 |
| 353504 Dio3os | deiodinase, iodothyronine type III, opposite strand | 7.8678475 | 15.73569492 | 0 | 0.007575362 | -7.044469373 | 0.001546 | 0.021921 |
| 213311 Fbxl21 | F-box and leucine-rich repeat protein 21 | 13.334419 | 26.66883733 | 0 | 0.004511899 | -7.79204936 | 0.000169 | 0.003616 |
| 107585 Dio3 | deiodinase, iodothyronine type III | 14.309566 | 28.6191316 | 0 | 0.004205248 | -7.893593457 | 0.000103 | 0.002409 |