

Supplementary table 1**Cognitive terms showing correlation with divergent thinking brain pattern.**

Term	R	P	FDR q
cognitive	0.297715	0.008799	0.018198
emotion	0.350303	0.027497	0.035746
judgments	0.270428	0.001	0.012999
location	-0.32225	0.005799	0.017158
memories	0.290194	0.0034	0.017158
multisensory	-0.212121	0.10149	0.108389
perception	-0.28243	0.018398	0.026575
reasoning	0.187326	0.005499	0.017158
retrieval	0.255717	0.016698	0.026575
selective	-0.33025	0.006599	0.017158
semantic	0.238160	0.108389	0.108389
sensory	-0.25438	0.032697	0.038642
visual	-0.39434	0.009799	0.018198

Note: FDR-corrected $q < 0.05$.

Supplementary table 2

Gradients showing correlation with divergent thinking brain pattern.

Gradient	R	P	FDR q
G1	0.664969	1.00E-04	0.0005
G2	-0.34393	0.029097	0.072743
G3	-0.11333	0.231177	0.379819
G4	0.159324	0.265873	0.379819
G5	0.235813	0.048895	0.09779
G6	0.101031	0.406759	0.508449
G7	0.061477	0.562544	0.625049
G8	-0.40201	0.0002	0.000667
G9	0.471704	1.00E-04	0.0005
G10	0.062542	0.647535	0.647535

Note: FDR-corrected $q < 0.05$.

Supplementary table 3

Gene Ontology enrichment analysis of genes associated with divergent thinking brain pattern.

GO Term	Description	P	FDR q	Enrichment	Genes
Biological process					
GO:0061687	detoxification of inorganic compound	7.49E-11	1.09E-06	22.23	MT1A - metallothionein 1a MT1B - metallothionein 1b MT1E - metallothionein 1e MT1F - metallothionein 1f SLC30A1 - solute carrier family 30 (zinc transporter), member 1 MT1G - metallothionein 1g MT1M - metallothionein 1m MT1X - metallothionein 1x MT2A - metallothionein 2a
GO:0055069	zinc ion homeostasis	2.73E-10	1.99E-06	10.92	PARK2 - parkinson protein 2, e3 ubiquitin protein ligase (parkin) SLC39A12 - solute carrier family 39 (zinc transporter), member 12 MT1A - metallothionein 1a MT1B - metallothionein 1b MT1E - metallothionein 1e MT1F - metallothionein 1f SLC30A1 - solute carrier family 30 (zinc transporter), member 1 MT1G - metallothionein 1g SLC30A10 - solute carrier family 30, member 10 MT1M - metallothionein 1m MT1X - metallothionein 1x MT2A - metallothionein 2a TMC8 - transmembrane channel-like 8
GO:0010273	detoxification of copper ion	6.30E-10	3.06E-06	38.38	MT1B - metallothionein 1b MT1E - metallothionein 1e

					MT1F - metallothionein 1f MT1G - metallothionein 1g MT1M - metallothionein 1m MT1X - metallothionein 1x MT2A - metallothionein 2a
GO:0006882	cellular zinc ion homeostasis	9.77E-10	3.56E-06	13.59	MT1A - metallothionein 1a MT1B - metallothionein 1b MT1E - metallothionein 1e MT1F - metallothionein 1f SLC30A1 - solute carrier family 30 (zinc transporter), member 1 MT1G - metallothionein 1g SLC30A10 - solute carrier family 30, member 10 SLC39A12 - solute carrier family 39 (zinc transporter), member 12 MT1M - metallothionein 1m MT1X - metallothionein 1x MT2A - metallothionein 2a
GO:0071276	cellular response to cadmium ion	2.44E-08	7.10E-05	16.45	CHUK - conserved helix-loop-helix ubiquitous kinase MT1B - metallothionein 1b MT1E - metallothionein 1e MT1F - metallothionein 1f MT1G - metallothionein 1g MT1M - metallothionein 1m MT1X - metallothionein 1x CYBB - cytochrome b-245, beta polypeptide MT2A - metallothionein 2a
GO:0051241	negative regulation of multicellular organismal p	4.56E-08	1.11E-04	1.63	HGF - hepatocyte growth factor (hepapoietin a; scatter factor) CIB1 - calcium and integrin binding 1 (calmyrin) IL17RD - interleukin 17 receptor d

					EFEMP1 - egf containing fibulin-like extracellular matrix protein 1 IL33 - interleukin 33 RNF10 - ring finger protein 10 HHEX - hematopoietically expressed homeobox TRIB1 - tribbles homolog 1 (drosophila) CD33 - cd33 molecule KIAA1024 - kiaa1024 SLIT1 - slit homolog 1 (drosophila) CTR9 - ctr9, paf1/rna polymerase ii complex component PLN - phospholamban CD38 - cd38 molecule ZNF706 - zinc finger protein 706 LOXL3 - lysyl oxidase-like 3 FAM129B - family with sequence similarity 129, member b TRIM27 - tripartite motif containing 27 SERPINB2 - serpin peptidase inhibitor, clade b (ovalbumin), member 2 EDN1 - endothelin 1 PRDX4 - peroxiredoxin 4 LYN - v-src-1 yamaguchi sarcoma viral related oncogene homolog EDNRB - endothelin receptor type b WNT10B - wingless-type mmtv integration site family, member 10b SMO - smoothened, frizzled family receptor APOE - apolipoprotein e DOCK7 - dedicator of cytokinesis 7 SPRY1 - sprouty homolog 1, antagonist of fgf signaling (drosophila) PAX6 - paired box 6 TBXA2R - thromboxane a2 receptor ZFP36L1 - zfp36 ring finger protein-like 1
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					NF1 - neurofibromin 1 SMAD6 - smad family member 6 NFATC1 - nuclear factor of activated t-cells, cytoplasmic, calcineurin-dependent 1 VASN - vasorin TMEM176B - transmembrane protein 176b KCNK2 - potassium channel, subfamily k, member 2 ARHGAP42 - rho gtpase activating protein 42 IGF1 - insulin-like growth factor 1 (somatomedin c) MESP1 - mesoderm posterior 1 homolog (mouse) PTCH1 - patched 1 ARHGAP4 - rho gtpase activating protein 4 C1QC - complement component 1, q subcomponent, c chain HERC5 - hect and rld domain containing e3 ubiquitin protein ligase 5 ARHGDIB - rho gdp dissociation inhibitor (gdi) beta PTGER3 - prostaglandin e receptor 3 (subtype ep3) PTGER4 - prostaglandin e receptor 4 (subtype ep4) WNT4 - wingless-type mmtv integration site family, member 4 ARRB1 - arrestin, beta 1 SOX11 - sry (sex determining region y)-box 11 APOM - apolipoprotein m SH2B3 - sh2b adaptor protein 3 ADCY7 - adenylate cyclase 7 NTN1 - netrin 1 OVOL2 - ovo-like 2 (drosophila) TSC1 - tuberous sclerosis 1 HDAC9 - histone deacetylase 9 FERMT1 - fermitin family member 1 SEMA4A - sema domain, immunoglobulin domain (ig), transmembrane domain
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					(tm) and short cytoplasmic domain, (semaphorin) 4a SPARC - secreted protein, acidic, cysteine-rich (osteonectin) NMI - n-myc (and stat) interactor PTN - pleiotrophin PDGFRA - platelet-derived growth factor receptor, alpha polypeptide NAV3 - neuron navigator 3 CRIM1 - cysteine rich transmembrane bmp regulator 1 (chordin-like) ASCL2 - achaete-scute complex homolog 2 (drosophila) ROBO1 - roundabout, axon guidance receptor, homolog 1 (drosophila) PTPN9 - protein tyrosine phosphatase, non-receptor type 9 PTPN11 - protein tyrosine phosphatase, non-receptor type 11 ASAP1 - arfgap with sh3 domain, ankyrin repeat and ph domain 1 ADAMTS9 - adam metalloproteinase with thrombospondin type 1 motif, 9 NOVA2 - neuro-oncological ventral antigen 2 FN1 - fibronectin 1 PTPRG - protein tyrosine phosphatase, receptor type, g NR1H3 - nuclear receptor subfamily 1, group h, member 3 ADRA2C - adrenoceptor alpha 2c SUFU - suppressor of fused homolog (drosophila) ADRB2 - adrenoceptor beta 2, surface TEK - tek tyrosine kinase, endothelial GPR68 - g protein-coupled receptor 68 SIGIRR - single immunoglobulin and toll-interleukin 1 receptor (tir) domain HES5 - hairy and enhancer of split 5 (drosophila) MDK - midkine (neurite growth-promoting factor 2) CHID1 - chitinase domain containing 1 PYCARD - pyd and card domain containing VSIG4 - v-set and immunoglobulin domain containing 4
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					SFTPD - surfactant protein d GDF10 - growth differentiation factor 10 ATP1B2 - atpase, na⁺/k⁺ transporting, beta 2 polypeptide LIMS2 - lim and senescent cell antigen-like domains 2 MEIS2 - meis homeobox 2 ERBB2 - v-erb-b2 avian erythroblastic leukemia viral oncogene homolog 2 CALR - calreticulin NRP1 - neuropilin 1 ATP2B4 - atpase, ca⁺⁺ transporting, plasma membrane 4 CD84 - cd84 molecule RANBP3L - ran binding protein 3-like YBX3 - y box binding protein 3 GJA1 - gap junction protein, alpha 1, 43kda THBD - thrombomodulin INHBB - inhibin, beta b PGAM5 - phosphoglycerate mutase family member 5 CST3 - cystatin c TIMP1 - timp metalloproteinase inhibitor 1 PRKCD - protein kinase c, delta LFNG - lfng o-fucosylpeptide 3-beta-n-acetylglucosaminyltransferase DPYSL3 - dihydropyrimidinase-like 3 CBLN1 - cerebellin 1 precursor GLI3 - gli family zinc finger 3 GPNMB - glycoprotein (transmembrane) nmb MERTK - c-mer proto-oncogene tyrosine kinase PRKG1 - protein kinase, cgmp-dependent, type i TLR2 - toll-like receptor 2 TLR3 - toll-like receptor 3
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					TLR4 - toll-like receptor 4 WDR77 - wd repeat domain 77 NR2E1 - nuclear receptor subfamily 2, group e, member 1 SLC2A10 - solute carrier family 2 (facilitated glucose transporter), member 10 SPRED3 - sprouty-related, evh1 domain containing 3 LAPTM5 - lysosomal protein transmembrane 5 F12 - coagulation factor xii (hageman factor) ANGPT1 - angiopoietin 1 CARD17 - caspase recruitment domain family, member 17 CX3CR1 - chemokine (c-x3-c motif) receptor 1 S1PR2 - sphingosine-1-phosphate receptor 2 PROS1 - protein s (alpha) CCR1 - chemokine (c-c motif) receptor 1 RBP4 - retinol binding protein 4, plasma CARD16 - caspase recruitment domain family, member 16 CALCRL - calcitonin receptor-like EZR - ezrin VIM - vimentin TNNT1 - troponin t type 1 (skeletal, slow) OXTR - oxytocin receptor TMEM176A - transmembrane protein 176a LGR4 - leucine-rich repeat containing g protein-coupled receptor 4 CD83 - cd83 molecule
GO:0071294	cellular response to zinc ion	6.62E-08	1.38E-04	37.31	MT1B - metallothionein 1b MT1E - metallothionein 1e MT1F - metallothionein 1f MT1G - metallothionein 1g MT1X - metallothionein 1x

					MT2A - metallothionein 2a
GO:0002237	response to molecule of bacterial origin	1.40E-07	2.54E-04	4.5	CHUK - conserved helix-loop-helix ubiquitous kinase OPRM1 - opioid receptor, mu 1 SPARC - secreted protein, acidic, cysteine-rich (osteonectin) RIPK2 - receptor-interacting serine-threonine kinase 2 TRIB1 - tribbles homolog 1 (drosophila) GJB6 - gap junction protein, beta 6, 30kda TBXA2R - thromboxane a2 receptor GJA1 - gap junction protein, alpha 1, 43kda THBD - thrombomodulin CARD17 - caspase recruitment domain family, member 17 PTGER4 - prostaglandin e receptor 4 (subtype ep4) ALPL - alkaline phosphatase, liver/bone/kidney CTR9 - ctr9, paf1/rna polymerase ii complex component CASP1 - caspase 1, apoptosis-related cysteine peptidase IFNAR1 - interferon (alpha, beta and omega) receptor 1 CD6 - cd6 molecule EDN1 - endothelin 1 TNFRSF11A - tumor necrosis factor receptor superfamily, member 11a, nfkb activator MGST1 - microsomal glutathione s-transferase 1 NR1H3 - nuclear receptor subfamily 1, group h, member 3
GO:0032496	response to lipopolysaccharide	2.06E-07	3.33E-04	4.61	CHUK - conserved helix-loop-helix ubiquitous kinase OPRM1 - opioid receptor, mu 1 SPARC - secreted protein, acidic, cysteine-rich (osteonectin) RIPK2 - receptor-interacting serine-threonine kinase 2 TRIB1 - tribbles homolog 1 (drosophila) GJB6 - gap junction protein, beta 6, 30kda

					TBXA2R - thromboxane a2 receptor GJA1 - gap junction protein, alpha 1, 43kda THBD - thrombomodulin CARD17 - caspase recruitment domain family, member 17 PTGER4 - prostaglandin e receptor 4 (subtype ep4) ALPL - alkaline phosphatase, liver/bone/kidney CTR9 - ctr9, paf1/rna polymerase ii complex component CASP1 - caspase 1, apoptosis-related cysteine peptidase IFNAR1 - interferon (alpha, beta and omega) receptor 1 CD6 - cd6 molecule EDN1 - endothelin 1 TNFRSF11A - tumor necrosis factor receptor superfamily, member 11a, nfkb activator MGST1 - microsomal glutathione s-transferase 1 NR1H3 - nuclear receptor subfamily 1, group h, member 3
GO:0071280	cellular response to copper ion	2.57E-07	3.75E-04	30.53	MT1B - metallothionein 1b MT1E - metallothionein 1e MT1F - metallothionein 1f MT1G - metallothionein 1g MT1X - metallothionein 1x MT2A - metallothionein 2a
GO:0046686	response to cadmium ion	8.66E-07	1.15E-03	7.11	CHUK - conserved helix-loop-helix ubiquitous kinase MT1A - metallothionein 1a MT1B - metallothionein 1b MT1E - metallothionein 1e MT1F - metallothionein 1f GSS - glutathione synthetase MT1G - metallothionein 1g

					SPARC - secreted protein, acidic, cysteine-rich (osteonectin) MT1M - metallothionein 1m MT1X - metallothionein 1x CYBB - cytochrome b-245, beta polypeptide MT2A - metallothionein 2a
GO:0098754	detoxification	1.24E-06	1.50E-03	2.88	CAT - catalase NXN - nucleoredoxin TXN - thioredoxin ALOX5AP - arachidonate 5-lipoxygenase-activating protein GSTM1 - glutathione s-transferase mu 1 SOD3 - superoxide dismutase 3, extracellular GSTM3 - glutathione s-transferase mu 3 (brain) GSTP1 - glutathione s-transferase pi 1 MT1A - metallothionein 1a MT1B - metallothionein 1b MT1E - metallothionein 1e FAM213B - family with sequence similarity 213, member b MT1F - metallothionein 1f SLC30A1 - solute carrier family 30 (zinc transporter), member 1 MT1G - metallothionein 1g PRDX1 - peroxiredoxin 1 MT1M - metallothionein 1m MT1X - metallothionein 1x APOM - apolipoprotein m MT2A - metallothionein 2a PRDX4 - peroxiredoxin 4 MARC1 - mitochondrial amidoxime reducing component 1 APOE - apolipoprotein e

					HBG1 - hemoglobin, gamma a HBQ1 - hemoglobin, theta 1 SLC30A10 - solute carrier family 30, member 10 CCS - copper chaperone for superoxide dismutase PTGES - prostaglandin e synthase MGST1 - microsomal glutathione s-transferase 1
GO:0042221	response to chemical	1.61E-06	1.81E-03	1.71	ADIRF - adipogenesis regulatory factor ADRB2 - adrenoceptor beta 2, surface FOLR2 - folate receptor 2 (fetal) MANF - mesencephalic astrocyte-derived neurotrophic factor CIB1 - calcium and integrin binding 1 (calmyrin) TMEM108 - transmembrane protein 108 TRIM24 - tripartite motif containing 24 TRIB1 - tribbles homolog 1 (drosophila) CALB1 - calbindin 1, 28kda CDC42EP4 - cdc42 effector protein (rho gtpase binding) 4 ME1 - malic enzyme 1, nadp(+)-dependent, cytosolic CTR9 - ctr9, paf1/rna polymerase ii complex component GRIN3A - glutamate receptor, ionotropic, n-methyl-d-aspartate 3a EDN1 - endothelin 1 PYCR1 - pyrroline-5-carboxylate reductase 1 CALR - calreticulin RPH3AL - rabphilin 3a-like (without c2 domains) NRP1 - neuropilin 1 KCNA5 - potassium voltage-gated channel, shaker-related subfamily, member 5 LYN - v-yes-1 yamaguchi sarcoma viral related oncogene homolog ATP2B4 - atpase, ca⁺⁺ transporting, plasma membrane 4 WNT10B - wingless-type mmtv integration site family, member 10b

					CERS1 - ceramide synthase 1 SHC1 - shc (src homology 2 domain containing) transforming protein 1 PEA15 - phosphoprotein enriched in astrocytes 15 HSP90B1 - heat shock protein 90kda beta (grp94), member 1 CPNE6 - copine vi (neuronal) CD81 - cd81 molecule NUPR1 - nuclear protein, transcriptional regulator, 1 TBXA2R - thromboxane a2 receptor GJA1 - gap junction protein, alpha 1, 43kda SMAD2 - smad family member 2 ACTA1 - actin, alpha 1, skeletal muscle RAB13 - rab13, member ras oncogene family THBD - thrombomodulin NTSR1 - neurotensin receptor 1 (high affinity) CASP1 - caspase 1, apoptosis-related cysteine peptidase IFNAR1 - interferon (alpha, beta and omega) receptor 1 DERL2 - derlin 2 ACTC1 - actin, alpha, cardiac muscle 1 SIPA1 - signal-induced proliferation-associated 1 MGST1 - microsomal glutathione s-transferase 1 CHUK - conserved helix-loop-helix ubiquitous kinase RGS19 - regulator of g-protein signaling 19 WFDC1 - wap four-disulfide core domain 1 PRKCD - protein kinase c, delta SYT10 - synaptotagmin x C1QA - complement component 1, q subcomponent, a chain DPYSL3 - dihydropyrimidinase-like 3 EIF4EBP1 - eukaryotic translation initiation factor 4e binding protein 1
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					GLRA3 - glycine receptor, alpha 3 NR4A3 - nuclear receptor subfamily 4, group a, member 3 ALPL - alkaline phosphatase, liver/bone/kidney PTGER4 - prostaglandin e receptor 4 (subtype ep4) MT1B - metallothionein 1b MT1E - metallothionein 1e MT1F - metallothionein 1f SOX4 - sry (sex determining region y)-box 4 MT1G - metallothionein 1g WNT4 - wingless-type mmtv integration site family, member 4 EFHC2 - ef-hand domain (c-terminal) containing 2 MT1M - metallothionein 1m MT1X - metallothionein 1x APOM - apolipoprotein m CPNE7 - copine vii MT2A - metallothionein 2a MAPK7 - mitogen-activated protein kinase 7 HCN4 - hyperpolarization activated cyclic nucleotide-gated potassium channel 4 TSC1 - tuberous sclerosis 1 PID1 - phosphotyrosine interaction domain containing 1 OPRM1 - opioid receptor, mu 1 CACNA1H - calcium channel, voltage-dependent, t type, alpha 1h subunit SPARC - secreted protein, acidic, cysteine-rich (osteonectin) PTN - pleiotrophin PACRG - park2 co-regulated RIPK2 - receptor-interacting serine-threonine kinase 2 CEBPA - ccaat/enhancer binding protein (c/ebp), alpha GJB6 - gap junction protein, beta 6, 30kda
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					ANG - angiogenin, ribonuclease, rnase a family, 5 CARD17 - caspase recruitment domain family, member 17 PTPN9 - protein tyrosine phosphatase, non-receptor type 9 ANK3 - ankyrin 3, node of ranvier (ankyrin g) FZD1 - frizzled family receptor 1 DHRS2 - dehydrogenase/reductase (sdr family) member 2 CD6 - cd6 molecule RBP4 - retinol binding protein 4, plasma CALCRL - calcitonin receptor-like ASS1 - argininosuccinate synthase 1 CYBB - cytochrome b-245, beta polypeptide TNFRSF11A - tumor necrosis factor receptor superfamily, member 11a, nfkb activator PMVK - phosphomevalonate kinase NR1H3 - nuclear receptor subfamily 1, group h, member 3
GO:0046688	response to copper ion	1.66E-06	1.73E-03	23.16	MT1B - metallothionein 1b MT1E - metallothionein 1e MT1F - metallothionein 1f MT1G - metallothionein 1g MT1X - metallothionein 1x MT2A - metallothionein 2a
GO:1901700	response to oxygen-containing compound	1.73E-06	1.68E-03	1.56	CIB2 - calcium and integrin binding family member 2 AKR1C3 - aldo-keto reductase family 1, member c3 LRP6 - low density lipoprotein receptor-related protein 6 PLCG2 - phospholipase c, gamma 2 (phosphatidylinositol-specific) ITPR2 - inositol 1,4,5-trisphosphate receptor, type 2 HHEX - hematopoietically expressed homeobox TRIB1 - tribbles homolog 1 (drosophila)

					MRC1 - mannose receptor, c type 1 CTR9 - ctr9, paf1/rna polymerase ii complex component CNR1 - cannabinoid receptor 1 (brain) PLN - phospholamban CD38 - cd38 molecule GLP2R - glucagon-like peptide 2 receptor BMP6 - bone morphogenetic protein 6 COL1A2 - collagen, type i, alpha 2 EDN1 - endothelin 1 TRIB3 - tribbles homolog 3 (drosophila) SMARCD1 - swi/snf related, matrix associated, actin dependent regulator of chromatin, subfamily d, member 1 KCNA5 - potassium voltage-gated channel, shaker-related subfamily, member 5 LYN - v-yes-1 yamaguchi sarcoma viral related oncogene homolog EDNRB - endothelin receptor type b WNT7B - wntless-type mmtv integration site family, member 7b PARK2 - parkinson protein 2, e3 ubiquitin protein ligase (parkin) WNT10B - wntless-type mmtv integration site family, member 10b SMO - smoothened, frizzled family receptor APOE - apolipoprotein e LAMTOR4 - late endosomal/lysosomal adaptor, mapk and mtor activator 4 HSP90B1 - heat shock protein 90kda beta (grp94), member 1 APRT - adenine phosphoribosyltransferase HYAL2 - hyaluronoglucosaminidase 2 SMAD2 - smad family member 2 TBXA2R - thromboxane a2 receptor ZFP36L1 - zfp36 ring finger protein-like 1 SIN3A - sin3 transcription regulator family member a
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					SLC30A10 - solute carrier family 30, member 10 ZNF580 - zinc finger protein 580 IFNAR1 - interferon (alpha, beta and omega) receptor 1 ACTC1 - actin, alpha, cardiac muscle 1 GABRB1 - gamma-aminobutyric acid (gaba) a receptor, beta 1 KCNMB1 - potassium large conductance calcium-activated channel, subfamily m, beta member 1 HMGCS1 - 3-hydroxy-3-methylglutaryl-coa synthase 1 (soluble) IGF1 - insulin-like growth factor 1 (somatomedin c) RGS19 - regulator of g-protein signaling 19 RRAGC - ras-related gtp binding c MSN - moesin WFDC1 - wap four-disulfide core domain 1 PTCH1 - patched 1 GLRA3 - glycine receptor, alpha 3 EIF4EBP1 - eukaryotic translation initiation factor 4e binding protein 1 NR4A3 - nuclear receptor subfamily 4, group a, member 3 PTGER4 - prostaglandin e receptor 4 (subtype ep4) CDK4 - cyclin-dependent kinase 4 AKR1C1 - aldo-keto reductase family 1, member c1 SOX4 - sry (sex determining region y)-box 4 MAOB - monoamine oxidase b APOM - apolipoprotein m HCN4 - hyperpolarization activated cyclic nucleotide-gated potassium channel 4 ADCY7 - adenylate cyclase 7 CDKN2D - cyclin-dependent kinase inhibitor 2d (p19, inhibits cdk4) TSC1 - tuberous sclerosis 1 HDAC9 - histone deacetylase 9
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					GNG12 - guanine nucleotide binding protein (g protein), gamma 12 SPARC - secreted protein, acidic, cysteine-rich (osteonectin) PTN - pleiotrophin RIPK2 - receptor-interacting serine-threonine kinase 2 PDGFRA - platelet-derived growth factor receptor, alpha polypeptide PDGFC - platelet derived growth factor c CXCL2 - chemokine (c-x-c motif) ligand 2 RGS9 - regulator of g-protein signaling 9 ASS1 - argininosuccinate synthase 1 TNFRSF11A - tumor necrosis factor receptor superfamily, member 11a, nfkb activator PMVK - phosphomevalonate kinase NR1H3 - nuclear receptor subfamily 1, group h, member 3 PNPLA3 - patatin-like phospholipase domain containing 3 ADRB2 - adrenoceptor beta 2, surface FOLR2 - folate receptor 2 (fetal) GSS - glutathione synthetase CACNA2D1 - calcium channel, voltage-dependent, alpha 2/delta subunit 1 TEK - tek tyrosine kinase, endothelial APOPT1 - apoptogenic 1, mitochondrial TXN - thioredoxin GCNT1 - glucosaminyl (n-acetyl) transferase 1, core 2 PYCARD - pyd and card domain containing ME1 - malic enzyme 1, nadp(+)-dependent, cytosolic HPGD - hydroxyprostaglandin dehydrogenase 15-(nad) GRIN3A - glutamate receptor, ionotropic, n-methyl-d-aspartate 3a CALR - calreticulin ATP2B4 - atpase, ca⁺⁺ transporting, plasma membrane 4
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					PLSCR4 - phospholipid scramblase 4 CERS1 - ceramide synthase 1 SSTR1 - somatostatin receptor 1 YAP1 - yes-associated protein 1 GJA1 - gap junction protein, alpha 1, 43kda RAB13 - rab13, member ras oncogene family RAB31 - rab31, member ras oncogene family THBD - thrombomodulin CASP1 - caspase 1, apoptosis-related cysteine peptidase PTGES - prostaglandin e synthase STAT5A - signal transducer and activator of transcription 5a SIPA1 - signal-induced proliferation-associated 1 MGST1 - microsomal glutathione s-transferase 1 INHBB - inhibin, beta b CAT - catalase CHUK - conserved helix-loop-helix ubiquitous kinase LDHA - lactate dehydrogenase a TIMP4 - timp metalloproteinase inhibitor 4 PRKCD - protein kinase c, delta CBL - cbl proto-oncogene, e3 ubiquitin protein ligase ALPL - alkaline phosphatase, liver/bone/kidney TLR2 - toll-like receptor 2 TLR4 - toll-like receptor 4 MAPK7 - mitogen-activated protein kinase 7 PID1 - phosphotyrosine interaction domain containing 1 OPRM1 - opioid receptor, mu 1 CTSH - cathepsin h VCP - valosin containing protein
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					GJB6 - gap junction protein, beta 6, 30kda CARD17 - caspase recruitment domain family, member 17 CX3CR1 - chemokine (c-x3-c motif) receptor 1 GAL - galanin/gmap prepropeptide CD6 - cd6 molecule RBP4 - retinol binding protein 4, plasma CARD16 - caspase recruitment domain family, member 16 CALCRL - calcitonin receptor-like EZR - ezrin RYSR3 - ryanodine receptor 3 CCR5 - chemokine (c-c motif) receptor 5 (gene/pseudogene) CYBB - cytochrome b-245, beta polypeptide VIM - vimentin OXTR - oxytocin receptor
GO:0001775	cell activation	2.08E-06	1.89E-03	1.57	A1BG - alpha-1-b glycoprotein P2RY1 - purinergic receptor p2y, g-protein coupled, 1 ITPR2 - inositol 1,4,5-trisphosphate receptor, type 2 PLCG2 - phospholipase c, gamma 2 (phosphatidylinositol-specific) IL33 - interleukin 33 MILR1 - mast cell immunoglobulin-like receptor 1 FTH1 - ferritin, heavy polypeptide 1 HHEX - hematopoietically expressed homeobox S100A13 - s100 calcium binding protein a13 PA2G4 - proliferation-associated 2g4, 38kda CD33 - cd33 molecule DYNLL1 - dynein, light chain, lc8-type 1 PRDX1 - peroxiredoxin 1 FTL - ferritin, light polypeptide

					PGRMC1 - progesterone receptor membrane component 1 COL1A2 - collagen, type i, alpha 2 FUCA1 - fucosidase, alpha-l- 1, tissue SNAP29 - synaptosomal-associated protein, 29kda EDN1 - endothelin 1 FUCA2 - fucosidase, alpha-l- 2, plasma LYL1 - lymphoblastic leukemia derived sequence 1 LYN - v-yes-1 yamaguchi sarcoma viral related oncogene homolog PRDX4 - peroxiredoxin 4 VAMP8 - vesicle-associated membrane protein 8 CD58 - cd58 molecule CD63 - cd63 molecule SMO - smoothened, frizzled family receptor PSMB1 - proteasome (prosome, macropain) subunit, beta type, 1 BATF3 - basic leucine zipper transcription factor, atf-like 3 APRT - adenine phosphoribosyltransferase CD151 - cd151 molecule (raph blood group) PSMB10 - proteasome (prosome, macropain) subunit, beta type, 10 HYAL2 - hyaluronoglucosaminidase 2 ZFP36L1 - zfp36 ring finger protein-like 1 ZFP36L2 - zfp36 ring finger protein-like 2 MR1 - major histocompatibility complex, class i-related KLF6 - kruppel-like factor 6 IGF1 - insulin-like growth factor 1 (somatomedin c) MSN - moesin C1QA - complement component 1, q subcomponent, a chain FKBP1B - fk506 binding protein 1b, 12.6 kda YWHAZ - tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation
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				protein, zeta polypeptide GNG2 - guanine nucleotide binding protein (g protein), gamma 2 NR4A3 - nuclear receptor subfamily 4, group a, member 3 C3 - complement component 3 PTGER4 - prostaglandin e receptor 4 (subtype ep4) ONECUT1 - one cut homeobox 1 SOX4 - sry (sex determining region y)-box 4 MT1G - metallothionein 1g WNT4 - wingless-type mmtv integration site family, member 4 ARRB1 - arrestin, beta 1 NIT2 - nitrilase family, member 2 TSC1 - tuberous sclerosis 1 PLEKHO2 - pleckstrin homology domain containing, family o member 2 ELF4 - e74-like factor 4 (ets domain transcription factor) HDAC9 - histone deacetylase 9 SEMA4A - sema domain, immunoglobulin domain (ig), transmembrane domain (tm) and short cytoplasmic domain, (semaphorin) 4a NMI - n-myc (and stat) interactor RIPK2 - receptor-interacting serine-threonine kinase 2 PDGFRA - platelet-derived growth factor receptor, alpha polypeptide QSOX1 - quiescin q6 sulfhydryl oxidase 1 CFD - complement factor d (adipsin) SELPLG - selectin p ligand PTPN11 - protein tyrosine phosphatase, non-receptor type 11 BATF2 - basic leucine zipper transcription factor, atf-like 2 TREX1 - three prime repair exonuclease 1 MLEC - malectin PECAM1 - platelet/endothelial cell adhesion molecule 1
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					CMTM7 - cklf-like marvel transmembrane domain containing 7 ADRA2C - adrenoceptor alpha 2c CREG1 - cellular repressor of e1a-stimulated genes 1 MDK - midkine (neurite growth-promoting factor 2) PYCARD - pyd and card domain containing GSTP1 - glutathione s-transferase pi 1 TYROBP - tyro protein tyrosine kinase binding protein TUBB4B - tubulin, beta 4b class ivb AGA - aspartylglucosaminidase SLC27A2 - solute carrier family 27 (fatty acid transporter), member 2 TUSC2 - tumor suppressor candidate 2 ARPC5 - actin related protein 2/3 complex, subunit 5, 16kda PYGL - phosphorylase, glycogen, liver CD24 - cd24 molecule TBC1D10C - tbc1 domain family, member 10c RAB31 - rab31, member ras oncogene family GMFG - glia maturation factor, gamma MGST1 - microsomal glutathione s-transferase 1 LCP1 - lymphocyte cytosolic protein 1 (l-plastin) CAT - catalase CST3 - cystatin c TIMP1 - timp metalloproteinase inhibitor 1 TIMP2 - timp metalloproteinase inhibitor 2 HSPA6 - heat shock 70kda protein 6 (hsp70b') DEGS1 - delta(4)-desaturase, sphingolipid 1 PRKCD - protein kinase c, delta MIF - macrophage migration inhibitory factor (glycosylation-inhibiting factor) HSP90AA1 - heat shock protein 90kda alpha (cytosolic), class a member 1
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					LFNG - lfng o-fucosylpeptide 3-beta-n-acetylglucosaminyltransferase CBL - cbl proto-oncogene, e3 ubiquitin protein ligase LGALS3 - lectin, galactoside-binding, soluble, 3 GLI3 - gli family zinc finger 3 MERTK - c-mer proto-oncogene tyrosine kinase RAP2B - rap2b, member of ras oncogene family TLR2 - toll-like receptor 2 SLC44A2 - solute carrier family 44 (choline transporter), member 2 TLR3 - toll-like receptor 3 TMEM173 - transmembrane protein 173 TLR4 - toll-like receptor 4 PIK3CD - phosphatidylinositol-4,5-bisphosphate 3-kinase, catalytic subunit delta HMHA1 - histocompatibility (minor) ha-1 CTSH - cathepsin h VAV1 - vav 1 guanine nucleotide exchange factor VCP - valosin containing protein CANT1 - calcium activated nucleotidase 1 CAP1 - cap, adenylate cyclase-associated protein 1 (yeast) CD2 - cd2 molecule GNAQ - guanine nucleotide binding protein (g protein), q polypeptide VAT1 - vesicle amine transport protein 1 homolog (t. californica) SKAP2 - src kinase associated phosphoprotein 2 MNDA - myeloid cell nuclear differentiation antigen DHRS2 - dehydrogenase/reductase (sdr family) member 2 CYBB - cytochrome b-245, beta polypeptide CD8A - cd8a molecule FZD9 - frizzled family receptor 9
GO:0071248	cellular response to metal	2.19E-06	1.88E-03	4.34	CHUK - conserved helix-loop-helix ubiquitous kinase

	ion				CACNA1H - calcium channel, voltage-dependent, t type, alpha 1h subunit CPNE6 - copine vi (neuronal) SYT10 - synaptotagmin x CEBPA - ccaat/enhancer binding protein (c/ebp), alpha MT1B - metallothionein 1b MT1E - metallothionein 1e MT1F - metallothionein 1f ANK3 - ankyrin 3, node of ranvier (ankyrin g) MT1G - metallothionein 1g MT1M - metallothionein 1m MT1X - metallothionein 1x CYBB - cytochrome b-245, beta polypeptide MT2A - metallothionein 2a CPNE7 - copine vii EDN1 - endothelin 1 CALR - calreticulin
GO:0070887	cellular response to chemical stimulus	2.70E-06	2.19E-03	1.91	ADIRF - adipogenesis regulatory factor ADRB2 - adrenoceptor beta 2, surface FOLR2 - folate receptor 2 (fetal) CIB1 - calcium and integrin binding 1 (calmyrin) TMEM108 - transmembrane protein 108 TRIM24 - tripartite motif containing 24 CALB1 - calbindin 1, 28kda CDC42EP4 - cdc42 effector protein (rho gtpase binding) 4 CTR9 - ctr9, paf1/rna polymerase ii complex component EDN1 - endothelin 1 PYCR1 - pyrroline-5-carboxylate reductase 1 CALR - calreticulin

					NRP1 - neuropilin 1 LYN - v-src-1 yamaguchi sarcoma viral related oncogene homolog ATP2B4 - atpase, ca⁺⁺ transporting, plasma membrane 4 WNT10B - wntless-type mmtv integration site family, member 10b CERS1 - ceramide synthase 1 SHC1 - shc (src homology 2 domain containing) transforming protein 1 HSP90B1 - heat shock protein 90kda beta (grp94), member 1 CPNE6 - copine vi (neuronal) GJA1 - gap junction protein, alpha 1, 43kda TBXA2R - thromboxane a2 receptor ACTA1 - actin, alpha 1, skeletal muscle RAB13 - rab13, member ras oncogene family CASP1 - caspase 1, apoptosis-related cysteine peptidase IFNAR1 - interferon (alpha, beta and omega) receptor 1 SIPA1 - signal-induced proliferation-associated 1 MGST1 - microsomal glutathione s-transferase 1 CHUK - conserved helix-loop-helix ubiquitous kinase PRKCD - protein kinase c, delta SYT10 - synaptotagmin x DPYSL3 - dihydropyrimidinase-like 3 EIF4EBP1 - eukaryotic translation initiation factor 4e binding protein 1 NR4A3 - nuclear receptor subfamily 4, group a, member 3 ALPL - alkaline phosphatase, liver/bone/kidney PTGER4 - prostaglandin e receptor 4 (subtype ep4) MT1B - metallothionein 1b MT1E - metallothionein 1e MT1F - metallothionein 1f SOX4 - sry (sex determining region y)-box 4
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					MT1G - metallothionein 1g WNT4 - wingless-type mmtv integration site family, member 4 EFHC2 - ef-hand domain (c-terminal) containing 2 MT1M - metallothionein 1m MT1X - metallothionein 1x CPNE7 - copine vii MT2A - metallothionein 2a MAPK7 - mitogen-activated protein kinase 7 HCN4 - hyperpolarization activated cyclic nucleotide-gated potassium channel 4 TSC1 - tuberous sclerosis 1 PID1 - phosphotyrosine interaction domain containing 1 OPRM1 - opioid receptor, mu 1 CACNA1H - calcium channel, voltage-dependent, t type, alpha 1h subunit PTN - pleiotrophin RIPK2 - receptor-interacting serine-threonine kinase 2 PACRG - park2 co-regulated CEBPA - ccaat/enhancer binding protein (c/ebp), alpha GJB6 - gap junction protein, beta 6, 30kda CARD17 - caspase recruitment domain family, member 17 PTPN9 - protein tyrosine phosphatase, non-receptor type 9 ANK3 - ankyrin 3, node of ranvier (ankyrin g) DHRS2 - dehydrogenase/reductase (sdr family) member 2 CALCRL - calcitonin receptor-like ASS1 - argininosuccinate synthase 1 CYBB - cytochrome b-245, beta polypeptide NR1H3 - nuclear receptor subfamily 1, group h, member 3
GO:0072507	divalent inorganic cation homeostasis	4.21E-06	3.23E-03	2.56	ACKR3 - atypical chemokine receptor 3 MCUR1 - mitochondrial calcium uniporter regulator 1

					SLC39A12 - solute carrier family 39 (zinc transporter), member 12 TRIM24 - tripartite motif containing 24 CNGB1 - cyclic nucleotide gated channel beta 1 CALB1 - calbindin 1, 28kda PTGER3 - prostaglandin e receptor 3 (subtype ep3) MT1A - metallothionein 1a PTGER4 - prostaglandin e receptor 4 (subtype ep4) MT1B - metallothionein 1b MT1E - metallothionein 1e MT1F - metallothionein 1f SLC30A1 - solute carrier family 30 (zinc transporter), member 1 MT1G - metallothionein 1g CD38 - cd38 molecule MT1M - metallothionein 1m MT1X - metallothionein 1x MT2A - metallothionein 2a EDN1 - endothelin 1 JPH3 - junctophilin 3 CALR - calreticulin KCNA5 - potassium voltage-gated channel, shaker-related subfamily, member 5 EDNRB - endothelin receptor type b ATP2B4 - atpase, ca⁺⁺ transporting, plasma membrane 4 PDGFRA - platelet-derived growth factor receptor, alpha polypeptide TBXA2R - thromboxane a2 receptor GJA1 - gap junction protein, alpha 1, 43kda NTSR1 - neurotensin receptor 1 (high affinity) ANK3 - ankyrin 3, node of ranvier (ankyrin g) SLC30A10 - solute carrier family 30, member 10
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					SPPL3 - signal peptide peptidase like 3 FZD9 - frizzled family receptor 9 TMC8 - transmembrane channel-like 8 OXTR - oxytocin receptor
GO:0010033	response to organic substance	5.79E-06	4.22E-03	2.07	ADRB2 - adrenoceptor beta 2, surface FOLR2 - folate receptor 2 (fetal) MANF - mesencephalic astrocyte-derived neurotrophic factor CIB1 - calcium and integrin binding 1 (calmyrin) CALB1 - calbindin 1, 28kda CDC42EP4 - cdc42 effector protein (rho gtpase binding) 4 ME1 - malic enzyme 1, nadp(+)-dependent, cytosolic CTR9 - ctr9, paf1/rna polymerase ii complex component EDN1 - endothelin 1 KCNA5 - potassium voltage-gated channel, shaker-related subfamily, member 5 LYN - v-yes-1 yamaguchi sarcoma viral related oncogene homolog CERS1 - ceramide synthase 1 SHC1 - shc (src homology 2 domain containing) transforming protein 1 PEA15 - phosphoprotein enriched in astrocytes 15 CD81 - cd81 molecule GJA1 - gap junction protein, alpha 1, 43kda ACTA1 - actin, alpha 1, skeletal muscle RAB13 - rab13, member ras oncogene family CASP1 - caspase 1, apoptosis-related cysteine peptidase DERL2 - derlin 2 ACTC1 - actin, alpha, cardiac muscle 1 CHUK - conserved helix-loop-helix ubiquitous kinase RGS19 - regulator of g-protein signaling 19 WFDC1 - wap four-disulfide core domain 1

					PRKCD - protein kinase c, delta DPYSL3 - dihydropyrimidinase-like 3 EIF4EBP1 - eukaryotic translation initiation factor 4e binding protein 1 GLRA3 - glycine receptor, alpha 3 NR4A3 - nuclear receptor subfamily 4, group a, member 3 PTGER4 - prostaglandin e receptor 4 (subtype ep4) SOX4 - sry (sex determining region y)-box 4 MT1G - metallothionein 1g WNT4 - wntless-type mmtv integration site family, member 4 EFHC2 - ef-hand domain (c-terminal) containing 2 MT1X - metallothionein 1x APOM - apolipoprotein m MT2A - metallothionein 2a MAPK7 - mitogen-activated protein kinase 7 HCN4 - hyperpolarization activated cyclic nucleotide-gated potassium channel 4 TSC1 - tuberous sclerosis 1 OPRM1 - opioid receptor, mu 1 CACNA1H - calcium channel, voltage-dependent, t type, alpha 1h subunit RIPK2 - receptor-interacting serine-threonine kinase 2 CEBPA - ccaat/enhancer binding protein (c/ebp), alpha ANG - angiogenin, ribonuclease, rnase a family, 5 CARD17 - caspase recruitment domain family, member 17 PTPN9 - protein tyrosine phosphatase, non-receptor type 9 CD6 - cd6 molecule CYBB - cytochrome b-245, beta polypeptide PMVK - phosphomevalonate kinase
GO:0071241	cellular response to inorganic substance	8.93E-06	6.19E-03	4.72	CHUK - conserved helix-loop-helix ubiquitous kinase CACNA1H - calcium channel, voltage-dependent, t type, alpha 1h subunit

					CPNE6 - copine vi (neuronal) CEBPA - ccaat/enhancer binding protein (c/ebp), alpha MT1B - metallothionein 1b MT1E - metallothionein 1e MT1F - metallothionein 1f MT1G - metallothionein 1g MT1M - metallothionein 1m MT1X - metallothionein 1x CYBB - cytochrome b-245, beta polypeptide MT2A - metallothionein 2a CPNE7 - copine vii EDN1 - endothelin 1
GO:0046916	cellular transition metal ion homeostasis	8.98E-06	5.95E-03	8.92	MT1B - metallothionein 1b MT1E - metallothionein 1e MT1F - metallothionein 1f SCARA5 - scavenger receptor class a, member 5 (putative) MT1G - metallothionein 1g SLC39A12 - solute carrier family 39 (zinc transporter), member 12 MT1X - metallothionein 1x MT2A - metallothionein 2a ATOX1 - antioxidant 1 copper chaperone
GO:0045321	leukocyte activation	1.16E-05	7.36E-03	1.57	A1BG - alpha-1-b glycoprotein PLCG2 - phospholipase c, gamma 2 (phosphatidylinositol-specific) IL33 - interleukin 33 MILR1 - mast cell immunoglobulin-like receptor 1 FTH1 - ferritin, heavy polypeptide 1 HHEX - hematopoietically expressed homeobox S100A13 - s100 calcium binding protein a13

					PA2G4 - proliferation-associated 2g4, 38kda CD33 - cd33 molecule DYNLL1 - dynein, light chain, lc8-type 1 FTL - ferritin, light polypeptide PGRMC1 - progesterone receptor membrane component 1 FUCA1 - fucosidase, alpha-l- 1, tissue SNAP29 - synaptosomal-associated protein, 29kda EDN1 - endothelin 1 FUCA2 - fucosidase, alpha-l- 2, plasma LYL1 - lymphoblastic leukemia derived sequence 1 PRDX4 - peroxiredoxin 4 VAMP8 - vesicle-associated membrane protein 8 CD58 - cd58 molecule CD63 - cd63 molecule PSMB1 - proteasome (prosome, macropain) subunit, beta type, 1 BATF3 - basic leucine zipper transcription factor, atf-like 3 APRT - adenine phosphoribosyltransferase CD151 - cd151 molecule (raph blood group) PSMB10 - proteasome (prosome, macropain) subunit, beta type, 10 HYAL2 - hyaluronoglucosaminidase 2 ZFP36L1 - zfp36 ring finger protein-like 1 ZFP36L2 - zfp36 ring finger protein-like 2 MR1 - major histocompatibility complex, class i-related KLF6 - kruppel-like factor 6 MSN - moesin C1QA - complement component 1, q subcomponent, a chain FKBP1B - fk506 binding protein 1b, 12.6 kda NR4A3 - nuclear receptor subfamily 4, group a, member 3
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					C3 - complement component 3 PTGER4 - prostaglandin e receptor 4 (subtype ep4) ONECUT1 - one cut homeobox 1 SOX4 - sry (sex determining region y)-box 4 MT1G - metallothionein 1g WNT4 - wntless-type mmtv integration site family, member 4 NIT2 - nitrilase family, member 2 TSC1 - tuberous sclerosis 1 PLEKHO2 - pleckstrin homology domain containing, family o member 2 ELF4 - e74-like factor 4 (ets domain transcription factor) HDAC9 - histone deacetylase 9 SEMA4A - sema domain, immunoglobulin domain (ig), transmembrane domain (tm) and short cytoplasmic domain, (semaphorin) 4a NMI - n-myc (and stat) interactor RIPK2 - receptor-interacting serine-threonine kinase 2 QSOX1 - quiescin q6 sulfhydryl oxidase 1 CFD - complement factor d (adipsin) SELPLG - selectin p ligand BATF2 - basic leucine zipper transcription factor, atf-like 2 TREX1 - three prime repair exonuclease 1 MLEC - malectin PECAM1 - platelet/endothelial cell adhesion molecule 1 CMTM7 - cklf-like marvel transmembrane domain containing 7 CREG1 - cellular repressor of e1a-stimulated genes 1 MDK - midkine (neurite growth-promoting factor 2) PYCARD - pyd and card domain containing GSTP1 - glutathione s-transferase pi 1 TYROBP - tyro protein tyrosine kinase binding protein
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					TUBB4B - tubulin, beta 4b class ivb AGA - aspartylglucosaminidase SLC27A2 - solute carrier family 27 (fatty acid transporter), member 2 TUSC2 - tumor suppressor candidate 2 ARPC5 - actin related protein 2/3 complex, subunit 5, 16kda PYGL - phosphorylase, glycogen, liver TBC1D10C - tbc1 domain family, member 10c RAB31 - rab31, member ras oncogene family GMFG - glia maturation factor, gamma MGST1 - microsomal glutathione s-transferase 1 LCP1 - lymphocyte cytosolic protein 1 (l-plastin) CAT - catalase CST3 - cystatin c TIMP2 - timp metalloproteinase inhibitor 2 HSPA6 - heat shock 70kda protein 6 (hsp70b') DEGS1 - delta(4)-desaturase, sphingolipid 1 PRKCD - protein kinase c, delta MIF - macrophage migration inhibitory factor (glycosylation-inhibiting factor) HSP90AA1 - heat shock protein 90kda alpha (cytosolic), class a member 1 LFNG - lfng o-fucosylpeptide 3-beta-n-acetylglucosaminyltransferase CBL - cbl proto-oncogene, e3 ubiquitin protein ligase LGALS3 - lectin, galactoside-binding, soluble, 3 GLI3 - gli family zinc finger 3 MERTK - c-mer proto-oncogene tyrosine kinase RAP2B - rap2b, member of ras oncogene family TLR2 - toll-like receptor 2 SLC44A2 - solute carrier family 44 (choline transporter), member 2 TMEM173 - transmembrane protein 173
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					TLR3 - toll-like receptor 3 TLR4 - toll-like receptor 4 PIK3CD - phosphatidylinositol-4,5-bisphosphate 3-kinase, catalytic subunit delta HMHA1 - histocompatibility (minor) ha-1 CTSH - cathepsin h VAV1 - vav 1 guanine nucleotide exchange factor VCP - valosin containing protein CANT1 - calcium activated nucleotidase 1 CAP1 - cap, adenylate cyclase-associated protein 1 (yeast) CD2 - cd2 molecule VAT1 - vesicle amine transport protein 1 homolog (t. californica) SKAP2 - src kinase associated phosphoprotein 2 MNDA - myeloid cell nuclear differentiation antigen DHRS2 - dehydrogenase/reductase (sdr family) member 2 CYBB - cytochrome b-245, beta polypeptide CD8A - cd8a molecule FZD9 - frizzled family receptor 9
GO:0051239	regulation of multicellular organismal process	1.42E-05	8.59E-03	1.28	HGF - hepatocyte growth factor (hepapoietin a; scatter factor) IL33 - interleukin 33 ITPR2 - inositol 1,4,5-trisphosphate receptor, type 2 CYB5D2 - cytochrome b5 domain containing 2 CCBE1 - collagen and calcium binding egf domains 1 HHEX - hematopoietically expressed homeobox TRIB1 - tribbles homolog 1 (drosophila) DDAH1 - dimethylarginine dimethylaminohydrolase 1 TYMP - thymidine phosphorylase CTR9 - ctr9, paf1/rna polymerase ii complex component CNR1 - cannabinoid receptor 1 (brain)

					ZNF706 - zinc finger protein 706 LOXL3 - lysyl oxidase-like 3 CNTN1 - contactin 1 PRDM16 - pr domain containing 16 S1PR1 - sphingosine-1-phosphate receptor 1 SERPINB2 - serpin peptidase inhibitor, clade b (ovalbumin), member 2 BMP6 - bone morphogenetic protein 6 ACADL - acyl-coa dehydrogenase, long chain EDN1 - endothelin 1 ANGPTL4 - angiopoietin-like 4 KCNA5 - potassium voltage-gated channel, shaker-related subfamily, member 5 EDNRB - endothelin receptor type b WNT7B - wingless-type mmtv integration site family, member 7b PARK2 - parkinson protein 2, e3 ubiquitin protein ligase (parkin) RHOJ - ras homolog family member j WNT10B - wingless-type mmtv integration site family, member 10b PSMB1 - proteasome (prosome, macropain) subunit, beta type, 1 SPRY1 - sprouty homolog 1, antagonist of fgf signaling (drosophila) PAX6 - paired box 6 NUPR1 - nuclear protein, transcriptional regulator, 1 FZD2 - frizzled family receptor 2 PSMB10 - proteasome (prosome, macropain) subunit, beta type, 10 TBXA2R - thromboxane a2 receptor ZFP36L1 - zfp36 ring finger protein-like 1 ZFP36L2 - zfp36 ring finger protein-like 2 ZNF580 - zinc finger protein 580 VASN - vasorin TMEM176B - transmembrane protein 176b
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					HEYL - hairy/enhancer-of-split related with yrpw motif-like KCNK2 - potassium channel, subfamily k, member 2 PSME1 - proteasome (prosome, macropain) activator subunit 1 (pa28 alpha) MESP1 - mesoderm posterior 1 homolog (mouse) PTCH1 - patched 1 LATS2 - large tumor suppressor kinase 2 ACVR2A - activin a receptor, type iia C1QC - complement component 1, q subcomponent, c chain HERC5 - hect and rld domain containing e3 ubiquitin protein ligase 5 YWHAZ - tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, zeta polypeptide PTGER3 - prostaglandin e receptor 3 (subtype ep3) C3 - complement component 3 ELL3 - elongation factor rna polymerase ii-like 3 PTGER4 - prostaglandin e receptor 4 (subtype ep4) PRMT6 - protein arginine methyltransferase 6 FAM19A1 - family with sequence similarity 19 (chemokine (c-c motif)-like), member a1 WNT4 - wingless-type mmtv integration site family, member 4 EFHC2 - ef-hand domain (c-terminal) containing 2 MYADM - myeloid-associated differentiation marker APOM - apolipoprotein m ADCY7 - adenylate cyclase 7 SULF2 - sulfatase 2 GAMT - guanidinoacetate n-methyltransferase HDAC9 - histone deacetylase 9 ZNF219 - zinc finger protein 219 TNIK - traf2 and nck interacting kinase
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					SEMA4A - sema domain, immunoglobulin domain (ig), transmembrane domain (tm) and short cytoplasmic domain, (semaphorin) 4a NMI - n-myc (and stat) interactor PTN - pleiotrophin CADM1 - cell adhesion molecule 1 PDGFRA - platelet-derived growth factor receptor, alpha polypeptide CRIM1 - cysteine rich transmembrane bmp regulator 1 (chordin-like) AMIGO2 - adhesion molecule with ig-like domain 2 MTM1 - myotubularin 1 RSPO3 - r-spondin 3 PTPN9 - protein tyrosine phosphatase, non-receptor type 9 PDGFC - platelet derived growth factor c PTPN11 - protein tyrosine phosphatase, non-receptor type 11 CLEC9A - c-type lectin domain family 9, member a GATM - glycine amidinotransferase (l-arginine:glycine amidinotransferase) PTPRF - protein tyrosine phosphatase, receptor type, f PTPRG - protein tyrosine phosphatase, receptor type, g ADRA2C - adrenoceptor alpha 2c NUS1 - nuclear undecaprenyl pyrophosphate synthase 1 homolog (s. cerevisiae) ADRB2 - adrenoceptor beta 2, surface FERMT2 - fermitin family member 2 CACNA2D1 - calcium channel, voltage-dependent, alpha 2/delta subunit 1 TEK - tek tyrosine kinase, endothelial MAPRE2 - microtubule-associated protein, rp/eb family, member 2 PTPRZ1 - protein tyrosine phosphatase, receptor-type, z polypeptide 1 AP2B1 - adaptor-related protein complex 2, beta 1 subunit PYCARD - pyd and card domain containing SFTPD - surfactant protein d
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					GDF10 - growth differentiation factor 10 TAPT1 - transmembrane anterior posterior transformation 1 ERBB2 - v-erb-b2 avian erythroblastic leukemia viral oncogene homolog 2 CALR - calreticulin TG - thyroglobulin GORAB - golgin, rab6-interacting RANBP3L - ran binding protein 3-like CAMK2D - calcium/calmodulin-dependent protein kinase ii delta HRAS - harvey rat sarcoma viral oncogene homolog MYB - v-myb avian myeloblastosis viral oncogene homolog YBX3 - y box binding protein 3 GHR - growth hormone receptor TMEM100 - transmembrane protein 100 YAP1 - yes-associated protein 1 NDNF - neuron-derived neurotrophic factor GJA1 - gap junction protein, alpha 1, 43kda THBD - thrombomodulin CNIH2 - cornichon homolog 2 (drosophila) CASP1 - caspase 1, apoptosis-related cysteine peptidase THRA - thyroid hormone receptor, alpha MYH7 - myosin, heavy chain 7, cardiac muscle, beta CST3 - cystatin c TIMP1 - timp metalloproteinase inhibitor 1 HSPB1 - heat shock 27kda protein 1 SLC4A3 - solute carrier family 4 (anion exchanger), member 3 HSP90AA1 - heat shock protein 90kda alpha (cytosolic), class a member 1 GLG1 - golgi glycoprotein 1 LFNG - lfng o-fucosylpeptide 3-beta-n-acetylglucosaminyltransferase
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					GLI1 - gli family zinc finger 1 CBLN1 - cerebellin 1 precursor LRRN1 - leucine rich repeat neuronal 1 GLI3 - gli family zinc finger 3 LGALS3 - lectin, galactoside-binding, soluble, 3 GPNMB - glycoprotein (transmembrane) nmb MERTK - c-mer proto-oncogene tyrosine kinase TLR2 - toll-like receptor 2 TLR3 - toll-like receptor 3 TMEM173 - transmembrane protein 173 NUMBL - numb homolog (drosophila)-like TLR4 - toll-like receptor 4 NR2E1 - nuclear receptor subfamily 2, group e, member 1 SMURF2 - smad specific e3 ubiquitin protein ligase 2 SLC2A10 - solute carrier family 2 (facilitated glucose transporter), member 10 GLUL - glutamate-ammonia ligase PIK3CD - phosphatidylinositol-4,5-bisphosphate 3-kinase, catalytic subunit delta SPRED3 - sprouty-related, evh1 domain containing 3 LAPTM5 - lysosomal protein transmembrane 5 F12 - coagulation factor xii (hageman factor) CTSH - cathepsin h LMO1 - lim domain only 1 (rhombotin 1) ANGPT1 - angiopoietin 1 CD2 - cd2 molecule CARD17 - caspase recruitment domain family, member 17 CX3CR1 - chemokine (c-x3-c motif) receptor 1 S1PR2 - sphingosine-1-phosphate receptor 2 CD6 - cd6 molecule
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					RBP4 - retinol binding protein 4, plasma CYBB - cytochrome b-245, beta polypeptide CXCR4 - chemokine (c-x-c motif) receptor 4 TNNT1 - troponin t type 1 (skeletal, slow) TMEM176A - transmembrane protein 176a LGR4 - leucine-rich repeat containing g protein-coupled receptor 4 CD83 - cd83 molecule CIB1 - calcium and integrin binding 1 (calmyrin) IL17RD - interleukin 17 receptor d EFEMP1 - egf containing fibulin-like extracellular matrix protein 1 LRP6 - low density lipoprotein receptor-related protein 6 PLCG2 - phospholipase c, gamma 2 (phosphatidylinositol-specific) RNF10 - ring finger protein 10 TRIP12 - thyroid hormone receptor interactor 12 CD33 - cd33 molecule KIAA1024 - kiaa1024 SLIT1 - slit homolog 1 (drosophila) FXD1 - fxd domain containing ion transport regulator 1 SLN - sarcolipin PLN - phospholamban CD38 - cd38 molecule TRIM27 - tripartite motif containing 27 FAM129B - family with sequence similarity 129, member b EFEMP2 - egf containing fibulin-like extracellular matrix protein 2 PRDX4 - peroxiredoxin 4 SMARCD3 - swi/snf related, matrix associated, actin dependent regulator of chromatin, subfamily d, member 3 MBOAT2 - membrane bound o-acyltransferase domain containing 2
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					VAMP8 - vesicle-associated membrane protein 8 LYN - v-yes-1 yamaguchi sarcoma viral related oncogene homolog CD58 - cd58 molecule SMO - smoothened, frizzled family receptor APOE - apolipoprotein e DOCK7 - dedicator of cytokinesis 7 CPNE6 - copine vi (neuronal) CD81 - cd81 molecule HYAL2 - hyaluronoglucosaminidase 2 SMAD2 - smad family member 2 NF1 - neurofibromin 1 SIN3A - sin3 transcription regulator family member a SMAD6 - smad family member 6 LAMA1 - laminin, alpha 1 NFATC1 - nuclear factor of activated t-cells, cytoplasmic, calcineurin-dependent 1 PRRX1 - paired related homeobox 1 ARHGAP42 - rho gtpase activating protein 42 IGF1 - insulin-like growth factor 1 (somatomedin c) POLR3GL - polymerase (rna) iii (dna directed) polypeptide g (32kd)-like SASH1 - sam and sh3 domain containing 1 ARHGAP4 - rho gtpase activating protein 4 TRPS1 - trichorhinophalangeal syndrome i GDPD2 - glycerophosphodiester phosphodiesterase domain containing 2 ARHGDIB - rho gdp dissociation inhibitor (gdi) beta NR4A3 - nuclear receptor subfamily 4, group a, member 3 CDK4 - cyclin-dependent kinase 4 POLR2L - polymerase (rna) ii (dna directed) polypeptide l, 7.6kda SOX4 - sry (sex determining region y)-box 4
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					DDT - d-dopachrome tautomerase ARRB1 - arrestin, beta 1 SOX11 - sry (sex determining region y)-box 11 SNX5 - sorting nexin 5 SH2B3 - sh2b adaptor protein 3 HCN4 - hyperpolarization activated cyclic nucleotide-gated potassium channel 4 OVOL2 - ovo-like 2 (drosophila) GRID2 - glutamate receptor, ionotropic, delta 2 NTN1 - netrin 1 TSC1 - tuberous sclerosis 1 POLR3C - polymerase (rna) iii (dna directed) polypeptide c (62kd) FERMT1 - fermitin family member 1 SPARC - secreted protein, acidic, cysteine-rich (osteonectin) INTU - inturned planar cell polarity protein TNFRSF14 - tumor necrosis factor receptor superfamily, member 14 RIPK2 - receptor-interacting serine-threonine kinase 2 NAV3 - neuron navigator 3 ASCL2 - achaete-scute complex homolog 2 (drosophila) CEBPA - ccaat/enhancer binding protein (c/ebp), alpha ROBO1 - roundabout, axon guidance receptor, homolog 1 (drosophila) ASAP1 - arfgap with sh3 domain, ankyrin repeat and ph domain 1 TREX1 - three prime repair exonuclease 1 ADAMTS9 - adam metallopeptidase with thrombospondin type 1 motif, 9 TNFRSF11A - tumor necrosis factor receptor superfamily, member 11a, nfkb activator NOVA2 - neuro-oncological ventral antigen 2 FN1 - fibronectin 1 NR1H3 - nuclear receptor subfamily 1, group h, member 3
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					SUFU - suppressor of fused homolog (drosophila) NPHS1 - nephrosis 1, congenital, finnish type (nephrin) SHISA9 - shisa family member 9 SLC39A12 - solute carrier family 39 (zinc transporter), member 12 GPR68 - g protein-coupled receptor 68 CD226 - cd226 molecule TMEM108 - transmembrane protein 108 BTNL9 - butyrophilin-like 9 SIGIRR - single immunoglobulin and toll-interleukin 1 receptor (tir) domain HES5 - hairy and enhancer of split 5 (drosophila) MDK - midkine (neurite growth-promoting factor 2) CHID1 - chitinase domain containing 1 VSIG4 - v-set and immunoglobulin domain containing 4 DIO2 - deiodinase, iodothyronine, type ii GPC6 - glypican 6 CLPB - clpb caseinolytic peptidase b homolog (e. coli) PYDC1 - pyd (pyrin domain) containing 1 NPY1R - neuropeptide y receptor y1 ATP1B2 - atpase, na⁺/k⁺ transporting, beta 2 polypeptide LIMS2 - lim and senescent cell antigen-like domains 2 MEIS2 - meis homeobox 2 NRP1 - neuropilin 1 ATP2B4 - atpase, ca⁺⁺ transporting, plasma membrane 4 CD84 - cd84 molecule IL12RB2 - interleukin 12 receptor, beta 2 SYT17 - synaptotagmin xvii DDR2 - discoidin domain receptor tyrosine kinase 2 NTSR1 - neurotensin receptor 1 (high affinity)
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					TENM3 - teneurin transmembrane protein 3 MDGA1 - mam domain containing glycosylphosphatidylinositol anchor 1 STAT5A - signal transducer and activator of transcription 5a PTGES - prostaglandin e synthase INHBB - inhibin, beta b PGAM5 - phosphoglycerate mutase family member 5 CHUK - conserved helix-loop-helix ubiquitous kinase PRKCD - protein kinase c, delta MIF - macrophage migration inhibitory factor (glycosylation-inhibiting factor) DPYSL3 - dihydropyrimidinase-like 3 PLXNC1 - plexin c1 PRKG1 - protein kinase, cgmp-dependent, type i KCNMB4 - potassium large conductance calcium-activated channel, subfamily m, beta member 4 WDR77 - wd repeat domain 77 MAPK7 - mitogen-activated protein kinase 7 OPRM1 - opioid receptor, mu 1 CACNA1H - calcium channel, voltage-dependent, t type, alpha 1h subunit RREB1 - ras responsive element binding protein 1 SLITRK2 - slit and ntrk-like family, member 2 ANKRD6 - ankyrin repeat domain 6 GAL - galanin/gmap prepropeptide YBX2 - y box binding protein 2 PROS1 - protein s (alpha) CCR1 - chemokine (c-c motif) receptor 1 FZD1 - frizzled family receptor 1 MNDA - myeloid cell nuclear differentiation antigen RYR1 - ryanodine receptor 1 (skeletal)
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					CARD16 - caspase recruitment domain family, member 16 EZR - ezrin CALCRL - calcitonin receptor-like RYR3 - ryanodine receptor 3 VIM - vimentin SYT4 - synaptotagmin iv FZD9 - frizzled family receptor 9 OXTR - oxytocin receptor MOV10 - mov10, moloney leukemia virus 10, homolog (mouse)
GO:0010043	response to zinc ion	1.50E-05	8.73E-03	16.38	MT1B - metallothionein 1b MT1E - metallothionein 1e MT1F - metallothionein 1f MT1G - metallothionein 1g MT1X - metallothionein 1x MT2A - metallothionein 2a
GO:0050866	negative regulation of cell activation	1.67E-05	9.35E-03	2.61	MILR1 - mast cell immunoglobulin-like receptor 1 PRKCD - protein kinase c, delta MDK - midkine (neurite growth-promoting factor 2) VSIG4 - v-set and immunoglobulin domain containing 4 GLI3 - gli family zinc finger 3 LGALS3 - lectin, galactoside-binding, soluble, 3 SFTPD - surfactant protein d GPNMB - glycoprotein (transmembrane) nmb CNR1 - cannabinoid receptor 1 (brain) PRKG1 - protein kinase, cgmp-dependent, type i MERTK - c-mer proto-oncogene tyrosine kinase LOXL3 - lysyl oxidase-like 3 SOX11 - sry (sex determining region y)-box 11

					SH2B3 - sh2b adaptor protein 3 ERBB2 - v-erb-b2 avian erythroblastic leukemia viral oncogene homolog 2 LYN - v-yes-1 yamaguchi sarcoma viral related oncogene homolog CD84 - cd84 molecule LAPTM5 - lysosomal protein transmembrane 5 APOE - apolipoprotein e TNFRSF14 - tumor necrosis factor receptor superfamily, member 14 IL13RA2 - interleukin 13 receptor, alpha 2 PDGFRA - platelet-derived growth factor receptor, alpha polypeptide LST1 - leukocyte specific transcript 1 TBC1D10C - tbc1 domain family, member 10c TNFAIP8L2 - tumor necrosis factor, alpha-induced protein 8-like 2 THBD - thrombomodulin GAL - galanin/gmap prepropeptide MNDA - myeloid cell nuclear differentiation antigen NR1H3 - nuclear receptor subfamily 1, group h, member 3
GO:0032101	regulation of response to external stimulus	1.85E-05	9.97E-03	2.31	IL33 - interleukin 33 WFDC1 - wap four-disulfide core domain 1 TRIM24 - tripartite motif containing 24 CNGB1 - cyclic nucleotide gated channel beta 1 PRKCD - protein kinase c, delta TRIB1 - tribbles homolog 1 (drosophila) C1QA - complement component 1, q subcomponent, a chain MDK - midkine (neurite growth-promoting factor 2) C1S - complement component 1, s subcomponent PTGER3 - prostaglandin e receptor 3 (subtype ep3) PTGER4 - prostaglandin e receptor 4 (subtype ep4) WNT4 - wingless-type mmtv integration site family, member 4

					KLK5 - kallikrein-related peptidase 5 GRIN3A - glutamate receptor, ionotropic, n-methyl-d-aspartate 3a MAPK7 - mitogen-activated protein kinase 7 EDN1 - endothelin 1 CALR - calreticulin GRID2 - glutamate receptor, ionotropic, delta 2 NRP1 - neuropilin 1 LYN - v-src-1 yamaguchi sarcoma viral related oncogene homolog OPRM1 - opioid receptor, mu 1 PTN - pleiotrophin RIPK2 - receptor-interacting serine-threonine kinase 2 CD81 - cd81 molecule NUPR1 - nuclear protein, transcriptional regulator, 1 CEBPA - ccaat/enhancer binding protein (c/ebp), alpha GJA1 - gap junction protein, alpha 1, 43kda TBXA2R - thromboxane a2 receptor TNFAIP8L2 - tumor necrosis factor, alpha-induced protein 8-like 2 PPEF1 - protein phosphatase, ef-hand calcium binding domain 1 THBD - thrombomodulin CASP1 - caspase 1, apoptosis-related cysteine peptidase PROS1 - protein s (alpha) CD6 - cd6 molecule CALCRL - calcitonin receptor-like TNFRSF11A - tumor necrosis factor receptor superfamily, member 11a, nfkb activator NR1H3 - nuclear receptor subfamily 1, group h, member 3
Cellular Component					
GO:0044421	extracellular region part	1.60E-12	3.03E-09	1.41	A1BG - alpha-1-b glycoprotein

					ENOX1 - ecto-nox disulfide-thiol exchanger 1 S100A4 - s100 calcium binding protein a4 S100A6 - s100 calcium binding protein a6 HGF - hepatocyte growth factor (hepapoietin a; scatter factor) BGN - biglycan DDAH2 - dimethylarginine dimethylaminohydrolase 2 RELN - reelin IL33 - interleukin 33 HIST2H2AC - histone cluster 2, h2ac HIST1H2BG - histone cluster 1, h2bg FTH1 - ferritin, heavy polypeptide 1 CCBE1 - collagen and calcium binding egf domains 1 HIST1H2BL - histone cluster 1, h2bl PA2G4 - proliferation-associated 2g4, 38kda S100A13 - s100 calcium binding protein a13 HIST1H2BM - histone cluster 1, h2bm HIST1H2BF - histone cluster 1, h2bf DDAH1 - dimethylarginine dimethylaminohydrolase 1 SELENBP1 - selenium binding protein 1 HIST1H2BH - histone cluster 1, h2bh HIST1H2BI - histone cluster 1, h2bi HIST1H2BC - histone cluster 1, h2bc CRELD2 - cysteine-rich with egf-like domains 2 PPP1R13L - protein phosphatase 1, regulatory subunit 13 like LOXL3 - lysyl oxidase-like 3 CNTN1 - contactin 1 FTL - ferritin, light polypeptide SERPINB2 - serpin peptidase inhibitor, clade b (ovalbumin), member 2
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					BMP6 - bone morphogenetic protein 6 COL1A2 - collagen, type i, alpha 2 FUCA1 - fucosidase, alpha-l- 1, tissue EDN1 - endothelin 1 RTBDN - retbindin FUCA2 - fucosidase, alpha-l- 2, plasma ANGPTL4 - angiopoietin-like 4 WNT7B - wingless-type mmtv integration site family, member 7b CCT5 - chaperonin containing tcp1, subunit 5 (epsilon) RHOJ - ras homolog family member j WNT10B - wingless-type mmtv integration site family, member 10b PSMB1 - proteasome (prosome, macropain) subunit, beta type, 1 NUPR1 - nuclear protein, transcriptional regulator, 1 ACTA1 - actin, alpha 1, skeletal muscle COL10A1 - collagen, type x, alpha 1 PCBD1 - pterin-4 alpha-carbinolamine dehydratase/dimerization cofactor of hepatocyte nuclear factor 1 alpha COL16A1 - collagen, type xvi, alpha 1 MR1 - major histocompatibility complex, class i-related VASN - vasorin ACTC1 - actin, alpha, cardiac muscle 1 COMT - catechol-o-methyltransferase ACTG1 - actin, gamma 1 ACTG2 - actin, gamma 2, smooth muscle, enteric MEGF9 - multiple egf-like-domains 9 H2BFS - h2b histone family, member s (pseudogene) COL23A1 - collagen, type xxiii, alpha 1 PSME1 - proteasome (prosome, macropain) activator subunit 1 (pa28 alpha)
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					MAN1A2 - mannosidase, alpha, class 1a, member 2 CHMP1A - charged multivesicular body protein 1a MSN - moesin TIMM8B - translocase of inner mitochondrial membrane 8 homolog b (yeast) C1QA - complement component 1, q subcomponent, a chain PCSK5 - proprotein convertase subtilisin/kexin type 5 C1QB - complement component 1, q subcomponent, b chain C1QC - complement component 1, q subcomponent, c chain XYLT1 - xylosyltransferase i C1S - complement component 1, s subcomponent YWHAZ - tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, zeta polypeptide GNG2 - guanine nucleotide binding protein (g protein), gamma 2 BBOX1 - butyrobetaine (gamma), 2-oxoglutarate dioxygenase (gamma-butyrobetaine hydroxylase) 1 C3 - complement component 3 LTBP4 - latent transforming growth factor beta binding protein 4 ADAMTSL2 - adams-like 2 CYTL1 - cytokine-like 1 FAM19A1 - family with sequence similarity 19 (chemokine (c-c motif)-like), member a1 SUB1 - sub1 homolog (s. cerevisiae) WNT4 - wingless-type mmtv integration site family, member 4 TMEFF2 - transmembrane protein with egf-like and two follistatin-like domains 2 GALK1 - galactokinase 1 HNRNPC - heterogeneous nuclear ribonucleoprotein c (c1/c2) APOM - apolipoprotein m MUM1L1 - melanoma associated antigen (mutated) 1-like 1
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					PDE4C - phosphodiesterase 4c, camp-specific PHLPP2 - ph domain and leucine rich repeat protein phosphatase 2 SULF2 - sulfatase 2 GNG12 - guanine nucleotide binding protein (g protein), gamma 12 TNIK - traf2 and neck interacting kinase SEMA4A - sema domain, immunoglobulin domain (ig), transmembrane domain (tm) and short cytoplasmic domain, (semaphorin) 4a NMI - n-myc (and stat) interactor PTN - pleiotrophin QSOX1 - quiescin q6 sulfhydryl oxidase 1 KLHDC8B - kelch domain containing 8b PDGFC - platelet derived growth factor c CLEC14A - c-type lectin domain family 14, member a GATM - glycine amidinotransferase (l-arginine:glycine amidinotransferase) PTPN13 - protein tyrosine phosphatase, non-receptor type 13 (apo-1/cd95 (fas)-associated phosphatase) PTPRA - protein tyrosine phosphatase, receptor type, a PHPT1 - phosphohistidine phosphatase 1 AIFM2 - apoptosis-inducing factor, mitochondrion-associated, 2 PECAM1 - platelet/endothelial cell adhesion molecule 1 LEPREL1 - leprecan-like 1 LRRC3B - leucine rich repeat containing 3b PTPRF - protein tyrosine phosphatase, receptor type, f PTPRG - protein tyrosine phosphatase, receptor type, g RAB34 - rab34, member ras oncogene family PABPC1L - poly(a) binding protein, cytoplasmic 1-like ADIRF - adipogenesis regulatory factor CACNA2D1 - calcium channel, voltage-dependent, alpha 2/delta subunit 1
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					BLOC1S1 - biogenesis of lysosomal organelles complex-1, subunit 1 SIL1 - sil1 nucleotide exchange factor GCNT1 - glucosaminyl (n-acetyl) transferase 1, core 2 AEBP1 - ae binding protein 1 CALB1 - calbindin 1, 28kda GOLM1 - golgi membrane protein 1 SFTPD - surfactant protein d TUBB4B - tubulin, beta 4b class ivb EPHX2 - epoxide hydrolase 2, cytoplasmic GDF10 - growth differentiation factor 10 FAM213B - family with sequence similarity 213, member b AGA - aspartylglucosaminidase SLC27A2 - solute carrier family 27 (fatty acid transporter), member 2 HPGD - hydroxyprostaglandin dehydrogenase 15-(nad) SGSH - n-sulfoglucosamine sulfohydrolase S100A16 - s100 calcium binding protein a16 CALR - calreticulin KRT86 - keratin 86 TG - thyroglobulin TCTN1 - tectonic family member 1 FIBCD1 - fibrinogen c domain containing 1 PYGL - phosphorylase, glycogen, liver AHCY - adenosylhomocysteinase TGFB1 - transforming growth factor, beta-induced, 68kda CANX - calnexin RAB35 - rab35, member ras oncogene family GHR - growth hormone receptor LAMB1 - laminin, beta 1
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					SHMT2 - serine hydroxymethyltransferase 2 (mitochondrial) LAMB2 - laminin, beta 2 (laminin s) NDNF - neuron-derived neurotrophic factor SPON2 - spondin 2, extracellular matrix protein RAB13 - rab13, member ras oncogene family THBD - thrombomodulin RAB27B - rab27b, member ras oncogene family MOB1B - mob kinase activator 1b ALDH2 - aldehyde dehydrogenase 2 family (mitochondrial) VCAN - versican NCAN - neurocan LCP1 - lymphocyte cytosolic protein 1 (l-plastin) CAT - catalase CST3 - cystatin c TIMP1 - timp metalloproteinase inhibitor 1 LDHA - lactate dehydrogenase a TIMP2 - timp metalloproteinase inhibitor 2 TIMP3 - timp metalloproteinase inhibitor 3 HSPA6 - heat shock 70kda protein 6 (hsp70b') MYL6 - myosin, light chain 6, alkali, smooth muscle and non-muscle TIMP4 - timp metalloproteinase inhibitor 4 LRRN2 - leucine rich repeat neuronal 2 TMEM256 - transmembrane protein 256 HSPB1 - heat shock 27kda protein 1 RAN - ran, member ras oncogene family SLC1A4 - solute carrier family 1 (glutamate/neutral amino acid transporter), member 4 HSP90AA1 - heat shock protein 90kda alpha (cytosolic), class a member 1
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					GLG1 - golgi glycoprotein 1 LFNG - lfng o-fucosylpeptide 3-beta-n-acetylglucosaminyltransferase SERPINI2 - serpin peptidase inhibitor, clade i (pancpin), member 2 MXRA8 - matrix-remodelling associated 8 CBLN1 - cerebellin 1 precursor LRRN1 - leucine rich repeat neuronal 1 LGALS3 - lectin, galactoside-binding, soluble, 3 ALPL - alkaline phosphatase, liver/bone/kidney PLA1A - phospholipase a1 member a MERTK - c-mer proto-oncogene tyrosine kinase RAP2B - rap2b, member of ras oncogene family SLC3A2 - solute carrier family 3 (amino acid transporter heavy chain), member 2 KLK5 - kallikrein-related peptidase 5 ARL15 - adp-ribosylation factor-like 15 TLR3 - toll-like receptor 3 CRB2 - crumbs homolog 2 (drosophila) RARS - arginyl-trna synthetase GLUL - glutamate-ammonia ligase ADAMTS8 - adam metallopeptidase with thrombospondin type 1 motif, 8 CCL28 - chemokine (c-c motif) ligand 28 F12 - coagulation factor xii (hageman factor) CTSH - cathepsin h HIST1H2AH - histone cluster 1, h2ah HIST1H2BK - histone cluster 1, h2bk PRSS23 - protease, serine, 23 ANG - angiogenin, ribonuclease, rnase a family, 5 ANGPT1 - angiopoietin 1 CAP1 - cap, adenylate cyclase-associated protein 1 (yeast)
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					GNAQ - guanine nucleotide binding protein (g protein), q polypeptide VAT1 - vesicle amine transport protein 1 homolog (t. californica) ACSL4 - acyl-coa synthetase long-chain family member 4 FAH - fumarylacetoacetate hydrolase (fumarylacetoacetase) RFXANK - regulatory factor x-associated ankyrin-containing protein NDP - norrie disease (pseudoglioma) RBP4 - retinol binding protein 4, plasma GNB2 - guanine nucleotide binding protein (g protein), beta polypeptide 2 CXCR4 - chemokine (c-x-c motif) receptor 4 SCG2 - secretogranin ii GNG4 - guanine nucleotide binding protein (g protein), gamma 4 ICAM3 - intercellular adhesion molecule 3 SLC15A2 - solute carrier family 15 (oligopeptide transporter), member 2 GNG5 - guanine nucleotide binding protein (g protein), gamma 5 FREM3 - fras1 related extracellular matrix 3 MANF - mesencephalic astrocyte-derived neurotrophic factor CIB2 - calcium and integrin binding family member 2 CIB1 - calcium and integrin binding 1 (calmyrin) EFEMP1 - egf containing fibulin-like extracellular matrix protein 1 AKR1C3 - aldo-keto reductase family 1, member c3 PTER - phosphotriesterase related PLCG2 - phospholipase c, gamma 2 (phosphatidylinositol-specific) LSP1 - lymphocyte-specific protein 1 SLIT1 - slit homolog 1 (drosophila) CD38 - cd38 molecule FAM129B - family with sequence similarity 129, member b SCUBE2 - signal peptide, cub domain, egf-like 2 EFEMP2 - egf containing fibulin-like extracellular matrix protein 2
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					PLTP - phospholipid transfer protein SLC4A4 - solute carrier family 4 (sodium bicarbonate cotransporter), member 4 UFC1 - ubiquitin-fold modifier conjugating enzyme 1 PRDX4 - peroxiredoxin 4 VAMP8 - vesicle-associated membrane protein 8 LYN - v-src-1 yamaguchi sarcoma viral related oncogene homolog CD58 - cd58 molecule CD63 - cd63 molecule SMO - smoothened, frizzled family receptor APOE - apolipoprotein e SLC26A11 - solute carrier family 26 (anion exchanger), member 11 HSP90B1 - heat shock protein 90kda beta (grp94), member 1 APRT - adenine phosphoribosyltransferase CPNE6 - copine vi (neuronal) CD81 - cd81 molecule MARCKS - myristoylated alanine-rich protein kinase c substrate FAS - fas cell surface death receptor FGFBP3 - fibroblast growth factor binding protein 3 CD151 - cd151 molecule (raph blood group) NT5C - 5', 3'-nucleotidase, cytosolic SNCG - synuclein, gamma (breast cancer-specific protein 1) LAMA1 - laminin, alpha 1 B4GALT3 - udp-gal:betaglcnac beta 1,4- galactosyltransferase, polypeptide 3 CCDC80 - coiled-coil domain containing 80 SNRPD2 - small nuclear ribonucleoprotein d2 polypeptide 16.5kda GPC5 - glypican 5 IGF1 - insulin-like growth factor 1 (somatomedin c) DNPH1 - 2'-deoxynucleoside 5'-phosphate n-hydrolase 1
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					CDH11 - cadherin 11, type 2, ob-cadherin (osteoblast) GALM - galactose mutarotase (aldose 1-epimerase) WFDC1 - wap four-disulfide core domain 1 CTDSP1 - ctd (carboxy-terminal domain, rna polymerase ii, polypeptide a) small phosphatase 1 NAGK - n-acetylglucosamine kinase SOD3 - superoxide dismutase 3, extracellular CMTM8 - cklf-like marvel transmembrane domain containing 8 MAN1A1 - mannosidase, alpha, class 1a, member 1 ARHGDIB - rho gdp dissociation inhibitor (gdi) beta IGFBP7 - insulin-like growth factor binding protein 7 AKR1C1 - aldo-keto reductase family 1, member c1 PHF15 - phd finger protein 15 ARL3 - adp-ribosylation factor-like 3 POTEF - pote ankyrin domain family, member f CYTH4 - cytohesin 4 DDT - d-dopachrome tautomerase CPNE7 - copine vii NIT2 - nitrilase family, member 2 ATP6V0A4 - atpase, h⁺ transporting, lysosomal v0 subunit a4 CPNE8 - copine viii NTN1 - netrin 1 CPAMD8 - c3 and pzp-like, alpha-2-macroglobulin domain containing 8 SPARC - secreted protein, acidic, cysteine-rich (osteonectin) ZNF649 - zinc finger protein 649 TOM1L1 - target of myb1 (chicken)-like 1 CFD - complement factor d (adipsin) TST - thiosulfate sulfurtransferase (rhodanese)
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					ASL - argininosuccinate lyase MYL12B - myosin, light chain 12b, regulatory TTN - titin COCH - cochlin CXCL2 - chemokine (c-x-c motif) ligand 2 ASS1 - argininosuccinate synthase 1 GRP - gastrin-releasing peptide ADAMTS9 - adam metalloproteinase with thrombospondin type 1 motif, 9 ABCB6 - atp-binding cassette, sub-family b (mdr/tap), member 6 FN1 - fibronectin 1 TUBB2A - tubulin, beta 2a class iia TMEM8A - transmembrane protein 8a PMVK - phosphomevalonate kinase CMTM7 - cklf-like marvel transmembrane domain containing 7 MPP6 - membrane protein, palmitoylated 6 (maguk p55 subfamily member 6) OAZ3 - ornithine decarboxylase antizyme 3 NPHS1 - nephrosis 1, congenital, finnish type (nephrin) GSS - glutathione synthetase SLC39A12 - solute carrier family 39 (zinc transporter), member 12 CREG1 - cellular repressor of e1a-stimulated genes 1 TXN - thioredoxin GSTM1 - glutathione s-transferase mu 1 MDK - midkine (neurite growth-promoting factor 2) CHID1 - chitinase domain containing 1 GSTM3 - glutathione s-transferase mu 3 (brain) TNFSF13B - tumor necrosis factor (ligand) superfamily, member 13b GSTP1 - glutathione s-transferase pi 1 GPC6 - glypican 6
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					CYB5R1 - cytochrome b5 reductase 1 RPL12 - ribosomal protein l12 ADAMTS19 - adam metalloproteinase with thrombospondin type 1 motif, 19 CPNE2 - copine ii COLEC11 - collectin sub-family member 11 HEBP1 - heme binding protein 1 UBA52 - ubiquitin a-52 residue ribosomal protein fusion product 1 SCPEP1 - serine carboxypeptidase 1 COL21A1 - collagen, type xxi, alpha 1 ARPC5 - actin related protein 2/3 complex, subunit 5, 16kda GNB4 - guanine nucleotide binding protein (g protein), beta polypeptide 4 SCRG1 - stimulator of chondrogenesis 1 MSMP - microseminoprotein, prostate associated NRP1 - neuropilin 1 CHST14 - carbohydrate (n-acetylgalactosamine 4-0) sulfotransferase 14 SSR4 - signal sequence receptor, delta ARPC2 - actin related protein 2/3 complex, subunit 2, 34kda RRAS2 - related ras viral (r-ras) oncogene homolog 2 IL13RA2 - interleukin 13 receptor, alpha 2 WISP2 - wnt1 inducible signaling pathway protein 2 RPL35A - ribosomal protein l35a GGCT - gamma-glutamylcyclotransferase NPEPPS - aminopeptidase puromycin sensitive ACTR1A - arp1 actin-related protein 1 homolog a, centractin alpha (yeast) AHNAK - ahnak nucleoprotein NUCB2 - nucleobindin 2 ATP6V1C1 - atpase, h+ transporting, lysosomal 42kda, v1 subunit c1 GALNT7 - udp-n-acetyl-alpha-d-galactosamine:polypeptide n-
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					acetylgalactosaminyltransferase 7 (galnac-t7) MDGA1 - mam domain containing glycosylphosphatidylinositol anchor 1 HPSE2 - heparanase 2 INHBB - inhibin, beta b CD248 - cd248 molecule, endosialin CHL1 - cell adhesion molecule 11-like WLS - wntless homolog (drosophila) PRKCD - protein kinase c, delta HIST1H2AD - histone cluster 1, h2ad MIF - macrophage migration inhibitory factor (glycosylation-inhibiting factor) DPYSL3 - dihydropyrimidinase-like 3 HIST1H2BD - histone cluster 1, h2bd VPS37D - vacuolar protein sorting 37 homolog d (s. cerevisiae) GLOD4 - glyoxalase domain containing 4 CNDP2 - cndp dipeptidase 2 (metallopeptidase m20 family) CLIC5 - chloride intracellular channel 5 RPS18 - ribosomal protein s18 SLC44A2 - solute carrier family 44 (choline transporter), member 2 ZG16B - zymogen granule protein 16b TUBB6 - tubulin, beta 6 class v TNFRSF11B - tumor necrosis factor receptor superfamily, member 11b BCAN - brevican ITGA1 - integrin, alpha 1 RREB1 - ras responsive element binding protein 1 VCP - valosin containing protein RSU1 - ras suppressor protein 1 CANT1 - calcium activated nucleotidase 1 GAL - galanin/gmap prepropeptide
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					PROS1 - protein s (alpha) MNDA - myeloid cell nuclear differentiation antigen RYR1 - ryanodine receptor 1 (skeletal) EZR - ezrin VIM - vimentin FKRP - fukutin related protein ITGB7 - integrin, beta 7 SH3BGRL3 - sh3 domain binding glutamic acid-rich protein like 3 TMC8 - transmembrane channel-like 8 MOV10 - mov10, moloney leukemia virus 10, homolog (mouse)
GO:0031012	extracellular matrix	5.72E-08	5.41E-05	1.93	A1BG - alpha-1-b glycoprotein S100A4 - s100 calcium binding protein a4 S100A6 - s100 calcium binding protein a6 BGN - biglycan EFEMP1 - egf containing fibulin-like extracellular matrix protein 1 CCBE1 - collagen and calcium binding egf domains 1 MDK - midkine (neurite growth-promoting factor 2) AEBP1 - ae binding protein 1 GPC6 - glypican 6 ADAMTS19 - adam metalloproteinase with thrombospondin type 1 motif, 19 GDF10 - growth differentiation factor 10 COL21A1 - collagen, type xxi, alpha 1 COL1A2 - collagen, type i, alpha 2 EFEMP2 - egf containing fibulin-like extracellular matrix protein 2 RTBDN - retbindin ANGPTL4 - angiopoietin-like 4 CALR - calreticulin FIBCD1 - fibrinogen c domain containing 1

					TGFBI - transforming growth factor, beta-induced, 68kda APOE - apolipoprotein e HSP90B1 - heat shock protein 90kda beta (grp94), member 1 WISP2 - wnt1 inducible signaling pathway protein 2 FGFBP3 - fibroblast growth factor binding protein 3 LAMB1 - laminin, beta 1 CD151 - cd151 molecule (raph blood group) LAMB2 - laminin, beta 2 (laminin s) NDNF - neuron-derived neurotrophic factor COL10A1 - collagen, type x, alpha 1 SPON2 - spondin 2, extracellular matrix protein LAMA1 - laminin, alpha 1 COL16A1 - collagen, type xvi, alpha 1 CCDC80 - coiled-coil domain containing 80 VCAN - versican VASN - vasorin NCAN - neurocan MEGF9 - multiple egf-like-domains 9 GPC5 - glypican 5 HPSE2 - heparanase 2 CD248 - cd248 molecule, endosialin COL23A1 - collagen, type xxiii, alpha 1 TIMP1 - timp metalloproteinase inhibitor 1 TIMP2 - timp metalloproteinase inhibitor 2 TIMP3 - timp metalloproteinase inhibitor 3 TIMP4 - timp metalloproteinase inhibitor 4 LRRN2 - leucine rich repeat neuronal 2 SOD3 - superoxide dismutase 3, extracellular
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					C1QA - complement component 1, q subcomponent, a chain C1QB - complement component 1, q subcomponent, b chain GLG1 - golgi glycoprotein 1 C1QC - complement component 1, q subcomponent, c chain CBLN1 - cerebellin 1 precursor LGALS3 - lectin, galactoside-binding, soluble, 3 LRRN1 - leucine rich repeat neuronal 1 LTBP4 - latent transforming growth factor beta binding protein 4 IGFBP7 - insulin-like growth factor binding protein 7 ALPL - alkaline phosphatase, liver/bone/kidney ADAMTSL2 - adamts-like 2 WNT4 - wingless-type mmtv integration site family, member 4 TMEFF2 - transmembrane protein with egf-like and two follistatin-like domains 2 TLR3 - toll-like receptor 3 TNFRSF11B - tumor necrosis factor receptor superfamily, member 11b NTN1 - netrin 1 BCAN - brevican F12 - coagulation factor xii (hageman factor) ADAMTS8 - adam metalloproteinase with thrombospondin type 1 motif, 8 CTSH - cathepsin h SPARC - secreted protein, acidic, cysteine-rich (osteonectin) PTN - pleiotrophin ANG - angiogenin, ribonuclease, rnase a family, 5 ANGPT1 - angiopoietin 1 ANGPTL6 - angiopoietin-like 6 CLEC14A - c-type lectin domain family 14, member a COCH - cochlin NDP - norrie disease (pseudoglioma)
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					ADAMTS9 - adam metalloproteinase with thrombospondin type 1 motif, 9 LRRC3B - leucine rich repeat containing 3b LEPREL1 - leprecan-like 1 FN1 - fibronectin 1 FREM3 - fras1 related extracellular matrix 3
GO:0005615	extracellular space	1.10E-07	6.91E-05	1.57	A1BG - alpha-1-b glycoprotein ENOX1 - ecto-nox disulfide-thiol exchanger 1 S100A4 - s100 calcium binding protein a4 MANF - mesencephalic astrocyte-derived neurotrophic factor HGF - hepatocyte growth factor (hepapoietin a; scatter factor) BGN - biglycan EFEMP1 - egf containing fibulin-like extracellular matrix protein 1 RELN - reelin IL33 - interleukin 33 HIST1H2BG - histone cluster 1, h2bg CCBE1 - collagen and calcium binding egf domains 1 S100A13 - s100 calcium binding protein a13 HIST1H2BF - histone cluster 1, h2bf SELENBP1 - selenium binding protein 1 HIST1H2BI - histone cluster 1, h2bi HIST1H2BC - histone cluster 1, h2bc CRELD2 - cysteine-rich with egf-like domains 2 SLIT1 - slit homolog 1 (drosophila) LOXL3 - lysyl oxidase-like 3 SERPINB2 - serpin peptidase inhibitor, clade b (ovalbumin), member 2 BMP6 - bone morphogenetic protein 6 COL1A2 - collagen, type i, alpha 2 SCUBE2 - signal peptide, cub domain, egf-like 2

					EDN1 - endothelin 1 FUCA2 - fucosidase, alpha-l- 2, plasma ANGPTL4 - angiopoietin-like 4 PLTP - phospholipid transfer protein WNT7B - wingless-type mmtv integration site family, member 7b CD63 - cd63 molecule WNT10B - wingless-type mmtv integration site family, member 10b APOE - apolipoprotein e ACTA1 - actin, alpha 1, skeletal muscle COL10A1 - collagen, type x, alpha 1 LAMA1 - laminin, alpha 1 COL16A1 - collagen, type xvi, alpha 1 MR1 - major histocompatibility complex, class i-related VASN - vasorin ACTC1 - actin, alpha, cardiac muscle 1 ACTG1 - actin, gamma 1 ACTG2 - actin, gamma 2, smooth muscle, enteric GPC5 - glypican 5 H2BFS - h2b histone family, member s (pseudogene) COL23A1 - collagen, type xxiii, alpha 1 IGF1 - insulin-like growth factor 1 (somatomedin c) MSN - moesin WFDC1 - wap four-disulfide core domain 1 TIMM8B - translocase of inner mitochondrial membrane 8 homolog b (yeast) SOD3 - superoxide dismutase 3, extracellular PCSK5 - proprotein convertase subtilisin/kexin type 5 C1QC - complement component 1, q subcomponent, c chain CMTM8 - cklf-like marvel transmembrane domain containing 8
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					XYLT1 - xylosyltransferase i YWHAZ - tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, zeta polypeptide C1S - complement component 1, s subcomponent C3 - complement component 3 LTBP4 - latent transforming growth factor beta binding protein 4 IGFBP7 - insulin-like growth factor binding protein 7 CYTL1 - cytokine-like 1 FAM19A1 - family with sequence similarity 19 (chemokine (c-c motif)-like), member a1 WNT4 - wingless-type mmtv integration site family, member 4 POTEF - pote ankyrin domain family, member f DDT - d-dopachrome tautomerase PDE4C - phosphodiesterase 4c, camp-specific SULF2 - sulfatase 2 CPAMD8 - c3 and pzp-like, alpha-2-macroglobulin domain containing 8 SEMA4A - sema domain, immunoglobulin domain (ig), transmembrane domain (tm) and short cytoplasmic domain, (semaphorin) 4a SPARC - secreted protein, acidic, cysteine-rich (osteonectin) NMI - n-myc (and stat) interactor PTN - pleiotrophin ZNF649 - zinc finger protein 649 QSOX1 - quiescin q6 sulfhydryl oxidase 1 TST - thiosulfate sulfurtransferase (rhodanese) PDGFC - platelet derived growth factor c CXCL2 - chemokine (c-x-c motif) ligand 2 AIFM2 - apoptosis-inducing factor, mitochondrion-associated, 2 GRP - gastrin-releasing peptide
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					PECAM1 - platelet/endothelial cell adhesion molecule 1 LRRC3B - leucine rich repeat containing 3b FN1 - fibronectin 1 CMTM7 - cklf-like marvel transmembrane domain containing 7 BLOC1S1 - biogenesis of lysosomal organelles complex-1, subunit 1 SIL1 - sil1 nucleotide exchange factor CREG1 - cellular repressor of e1a-stimulated genes 1 GCNT1 - glucosaminyl (n-acetyl) transferase 1, core 2 CHID1 - chitinase domain containing 1 AEBP1 - ae binding protein 1 GOLM1 - golgi membrane protein 1 GSTP1 - glutathione s-transferase pi 1 TNFSF13B - tumor necrosis factor (ligand) superfamily, member 13b GPC6 - glypican 6 SFTPD - surfactant protein d GDF10 - growth differentiation factor 10 COLEC11 - collectin sub-family member 11 UBA52 - ubiquitin a-52 residue ribosomal protein fusion product 1 AGA - aspartylglucosaminidase COL21A1 - collagen, type xxi, alpha 1 S100A16 - s100 calcium binding protein a16 CALR - calreticulin SCRG1 - stimulator of chondrogenesis 1 KRT86 - keratin 86 MSMP - microseminoprotein, prostate associated TCTN1 - tectonic family member 1 NRP1 - neuropilin 1 TG - thyroglobulin
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					FIBCD1 - fibrinogen c domain containing 1 TGFBI - transforming growth factor, beta-induced, 68kda GHR - growth hormone receptor IL13RA2 - interleukin 13 receptor, alpha 2 WISP2 - wnt1 inducible signaling pathway protein 2 LAMB1 - laminin, beta 1 NDNF - neuron-derived neurotrophic factor THBD - thrombomodulin NUCB2 - nucleobindin 2 VCAN - versican MDGA1 - mam domain containing glycosylphosphatidylinositol anchor 1 INHBB - inhibin, beta b LCP1 - lymphocyte cytosolic protein 1 (l-plastin) CST3 - cystatin c TIMP1 - timp metallopeptidase inhibitor 1 TIMP2 - timp metallopeptidase inhibitor 2 TIMP3 - timp metallopeptidase inhibitor 3 TIMP4 - timp metallopeptidase inhibitor 4 LRRN2 - leucine rich repeat neuronal 2 HSPB1 - heat shock 27kda protein 1 MIF - macrophage migration inhibitory factor (glycosylation-inhibiting factor) DPYSL3 - dihydropyrimidinase-like 3 SERPINI2 - serpin peptidase inhibitor, clade i (pancpin), member 2 LGALS3 - lectin, galactoside-binding, soluble, 3 LRRN1 - leucine rich repeat neuronal 1 PLA1A - phospholipase a1 member a MERTK - c-mer proto-oncogene tyrosine kinase KLK5 - kallikrein-related peptidase 5
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					TLR3 - toll-like receptor 3 ZG16B - zymogen granule protein 16b TNFRSF11B - tumor necrosis factor receptor superfamily, member 11b F12 - coagulation factor xii (hageman factor) CTSH - cathepsin h HIST1H2BK - histone cluster 1, h2bk ANG - angiogenin, ribonuclease, rnase a family, 5 ANGPT1 - angiopoietin 1 GAL - galanin/gmap prepropeptide PROS1 - protein s (alpha) NDP - norrie disease (pseudoglioma) RBP4 - retinol binding protein 4, plasma EZR - ezrin FKRP - fukutin related protein GNB2 - guanine nucleotide binding protein (g protein), beta polypeptide 2 SCG2 - secretogranin ii TMC8 - transmembrane channel-like 8 FREM3 - fras1 related extracellular matrix 3 MOV10 - mov10, moloney leukemia virus 10, homolog (mouse)
GO:0070062	extracellular exosome	1.43E-06	6.74E-04	1.37	A1BG - alpha-1-b glycoprotein S100A4 - s100 calcium binding protein a4 S100A6 - s100 calcium binding protein a6 BGN - biglycan DDAH2 - dimethylarginine dimethylaminohydrolase 2 HIST2H2AC - histone cluster 2, h2ac HIST1H2BG - histone cluster 1, h2bg FTH1 - ferritin, heavy polypeptide 1 HIST1H2BL - histone cluster 1, h2bl

					PA2G4 - proliferation-associated 2g4, 38kda HIST1H2BM - histone cluster 1, h2bm HIST1H2BF - histone cluster 1, h2bf DDAH1 - dimethylarginine dimethylaminohydrolase 1 SELENBP1 - selenium binding protein 1 HIST1H2BH - histone cluster 1, h2bh HIST1H2BI - histone cluster 1, h2bi HIST1H2BC - histone cluster 1, h2bc PRDX1 - peroxiredoxin 1 CNTN1 - contactin 1 FTL - ferritin, light polypeptide COL1A2 - collagen, type i, alpha 2 FUCA1 - fucosidase, alpha-l- 1, tissue FUCA2 - fucosidase, alpha-l- 2, plasma WNT7B - wingless-type mmtv integration site family, member 7b CCT5 - chaperonin containing tcp1, subunit 5 (epsilon) RHOJ - ras homolog family member j PSMB1 - proteasome (prosome, macropain) subunit, beta type, 1 ACTA1 - actin, alpha 1, skeletal muscle PCBD1 - pterin-4 alpha-carbinolamine dehydratase/dimerization cofactor of hepatocyte nuclear factor 1 alpha VASN - vasorin ACTC1 - actin, alpha, cardiac muscle 1 COMT - catechol-o-methyltransferase ACTG1 - actin, gamma 1 ACTG2 - actin, gamma 2, smooth muscle, enteric PSME1 - proteasome (prosome, macropain) activator subunit 1 (pa28 alpha) MAN1A2 - mannosidase, alpha, class 1a, member 2
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					CHMP1A - charged multivesicular body protein 1a MSN - moesin YWHAZ - tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, zeta polypeptide GNG2 - guanine nucleotide binding protein (g protein), gamma 2 BBOX1 - butyrobetaine (gamma), 2-oxoglutarate dioxygenase (gamma-butyrobetaine hydroxylase) 1 C3 - complement component 3 SUB1 - sub1 homolog (s. cerevisiae) WNT4 - wingless-type mmtv integration site family, member 4 GALK1 - galactokinase 1 HNRNPC - heterogeneous nuclear ribonucleoprotein c (c1/c2) MUM1L1 - melanoma associated antigen (mutated) 1-like 1 GNG12 - guanine nucleotide binding protein (g protein), gamma 12 TNIK - traf2 and nck interacting kinase QSOX1 - quiescin q6 sulfhydryl oxidase 1 PDGFC - platelet derived growth factor c GATM - glycine amidinotransferase (l-arginine:glycine amidinotransferase) PTPN13 - protein tyrosine phosphatase, non-receptor type 13 (apo-1/cd95 (fas)-associated phosphatase) PTPRA - protein tyrosine phosphatase, receptor type, a PHPT1 - phosphohistidine phosphatase 1 PECAM1 - platelet/endothelial cell adhesion molecule 1 PTPRF - protein tyrosine phosphatase, receptor type, f PTPRG - protein tyrosine phosphatase, receptor type, g RAB34 - rab34, member ras oncogene family PABPC1L - poly(a) binding protein, cytoplasmic 1-like ADIRF - adipogenesis regulatory factor
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					CACNA2D1 - calcium channel, voltage-dependent, alpha 2/delta subunit 1 TXNDC16 - thioredoxin domain containing 16 AEBP1 - ae binding protein 1 CALB1 - calbindin 1, 28kda TUBB4B - tubulin, beta 4b class ivb EPHX2 - epoxide hydrolase 2, cytoplasmic FAM213B - family with sequence similarity 213, member b SLC27A2 - solute carrier family 27 (fatty acid transporter), member 2 HPGD - hydroxyprostaglandin dehydrogenase 15-(nad) SGSH - n-sulfoglucosamine sulfohydrolase S100A16 - s100 calcium binding protein a16 CALR - calreticulin PYGL - phosphorylase, glycogen, liver AHCY - adenosylhomocysteinase TGFBI - transforming growth factor, beta-induced, 68kda CANX - calnexin RAB35 - rab35, member ras oncogene family LAMB1 - laminin, beta 1 SHMT2 - serine hydroxymethyltransferase 2 (mitochondrial) LAMB2 - laminin, beta 2 (laminin s) SPON2 - spondin 2, extracellular matrix protein RAB13 - rab13, member ras oncogene family RAB27B - rab27b, member ras oncogene family MOB1B - mob kinase activator 1b ALDH2 - aldehyde dehydrogenase 2 family (mitochondrial) LCP1 - lymphocyte cytosolic protein 1 (l-plastin) CAT - catalase CST3 - cystatin c
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					TIMP1 - timp metalloproteinase inhibitor 1 LDHA - lactate dehydrogenase a HSPA6 - heat shock 70kda protein 6 (hsp70b') MYL6 - myosin, light chain 6, alkali, smooth muscle and non-muscle TMEM256 - transmembrane protein 256 HSPB1 - heat shock 27kda protein 1 RAN - ran, member ras oncogene family SLC1A4 - solute carrier family 1 (glutamate/neutral amino acid transporter), member 4 HSP90AA1 - heat shock protein 90kda alpha (cytosolic), class a member 1 GLG1 - golgi glycoprotein 1 SERPINI2 - serpin peptidase inhibitor, clade i (pancrein), member 2 MXRA8 - matrix-remodelling associated 8 LGALS3 - lectin, galactoside-binding, soluble, 3 ALPL - alkaline phosphatase, liver/bone/kidney RAP2B - rap2b, member of ras oncogene family SLC3A2 - solute carrier family 3 (amino acid transporter heavy chain), member 2 ARL15 - adp-ribosylation factor-like 15 CRB2 - crumbs homolog 2 (drosophila) RARS - arginyl-trna synthetase GLUL - glutamate-ammonia ligase CCL28 - chemokine (c-c motif) ligand 28 F12 - coagulation factor xii (hageman factor) CTSH - cathepsin h HIST1H2AH - histone cluster 1, h2ah PRSS23 - protease, serine, 23 ANGPT1 - angiopoietin 1 CAP1 - cap, adenylate cyclase-associated protein 1 (yeast)
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					GNAQ - guanine nucleotide binding protein (g protein), q polypeptide VAT1 - vesicle amine transport protein 1 homolog (t. californica) ACSL4 - acyl-coa synthetase long-chain family member 4 FAH - fumarylacetoacetate hydrolase (fumarylacetoacetase) RBP4 - retinol binding protein 4, plasma GNB2 - guanine nucleotide binding protein (g protein), beta polypeptide 2 CXCR4 - chemokine (c-x-c motif) receptor 4 GNG4 - guanine nucleotide binding protein (g protein), gamma 4 ICAM3 - intercellular adhesion molecule 3 SLC15A2 - solute carrier family 15 (oligopeptide transporter), member 2 GNG5 - guanine nucleotide binding protein (g protein), gamma 5 CIB1 - calcium and integrin binding 1 (calmyrin) EFEMP1 - egf containing fibulin-like extracellular matrix protein 1 AKR1C3 - aldo-keto reductase family 1, member c3 PTER - phosphotriesterase related PLCG2 - phospholipase c, gamma 2 (phosphatidylinositol-specific) LSP1 - lymphocyte-specific protein 1 CD38 - cd38 molecule FAM129B - family with sequence similarity 129, member b EFEMP2 - egf containing fibulin-like extracellular matrix protein 2 SLC4A4 - solute carrier family 4 (sodium bicarbonate cotransporter), member 4 UFC1 - ubiquitin-fold modifier conjugating enzyme 1 PRDX4 - peroxiredoxin 4 VAMP8 - vesicle-associated membrane protein 8 LYN - v-src-1 yamaguchi sarcoma viral related oncogene homolog CD58 - cd58 molecule CD63 - cd63 molecule SMO - smoothened, frizzled family receptor
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					APOE - apolipoprotein e SLC26A11 - solute carrier family 26 (anion exchanger), member 11 HSP90B1 - heat shock protein 90kda beta (grp94), member 1 APRT - adenine phosphoribosyltransferase CPNE6 - copine vi (neuronal) CD81 - cd81 molecule MARCKS - myristoylated alanine-rich protein kinase c substrate FAS - fas cell surface death receptor NT5C - 5', 3'-nucleotidase, cytosolic SNCG - synuclein, gamma (breast cancer-specific protein 1) B4GALT3 - udp-gal:betaglcnaac beta 1,4- galactosyltransferase, polypeptide 3 SNRPD2 - small nuclear ribonucleoprotein d2 polypeptide 16.5kda DNPH1 - 2'-deoxynucleoside 5'-phosphate n-hydrolase 1 CDH11 - cadherin 11, type 2, ob-cadherin (osteoblast) GALM - galactose mutarotase (aldose 1-epimerase) CTDSP1 - ctd (carboxy-terminal domain, rna polymerase ii, polypeptide a) small phosphatase 1 NAGK - n-acetylglucosamine kinase SOD3 - superoxide dismutase 3, extracellular MAN1A1 - mannosidase, alpha, class 1a, member 1 ARHGDIB - rho gdp dissociation inhibitor (gdi) beta IGFBP7 - insulin-like growth factor binding protein 7 AKR1C1 - aldo-keto reductase family 1, member c1 PHF15 - phd finger protein 15 ARL3 - adp-ribosylation factor-like 3 POTEF - pote ankyrin domain family, member f DDT - d-dopachrome tautomerase CPNE7 - copine vii
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					NIT2 - nitrilase family, member 2 ATP6V0A4 - atpase, h⁺ transporting, lysosomal v0 subunit a4 CPNE8 - copine viii TOM1L1 - target of myb1 (chicken)-like 1 CFD - complement factor d (adipsin) ASL - argininosuccinate lyase MYL12B - myosin, light chain 12b, regulatory TTN - titin ASS1 - argininosuccinate synthase 1 ABCB6 - atp-binding cassette, sub-family b (mdr/tap), member 6 FN1 - fibronectin 1 TUBB2A - tubulin, beta 2a class iia TMEM8A - transmembrane protein 8a PMVK - phosphomevalonate kinase MPP6 - membrane protein, palmitoylated 6 (maguk p55 subfamily member 6) NPHS1 - nephrosis 1, congenital, finnish type (nephrin) GSS - glutathione synthetase CREG1 - cellular repressor of e1a-stimulated genes 1 TXN - thioredoxin GSTM3 - glutathione s-transferase mu 3 (brain) CHID1 - chitinase domain containing 1 GSTP1 - glutathione s-transferase pi 1 CYB5R1 - cytochrome b5 reductase 1 RPL12 - ribosomal protein l12 CPNE2 - copine ii HEBP1 - heme binding protein 1 UBA52 - ubiquitin a-52 residue ribosomal protein fusion product 1 SCPEP1 - serine carboxypeptidase 1
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					ARPC5 - actin related protein 2/3 complex, subunit 5, 16kda GNB4 - guanine nucleotide binding protein (g protein), beta polypeptide 4 CHST14 - carbohydrate (n-acetylgalactosamine 4-0) sulfotransferase 14 SSR4 - signal sequence receptor, delta ARPC2 - actin related protein 2/3 complex, subunit 2, 34kda RRAS2 - related ras viral (r-ras) oncogene homolog 2 RPL35A - ribosomal protein l35a GGCT - gamma-glutamylcyclotransferase NPEPPS - aminopeptidase puromycin sensitive ACTR1A - arp1 actin-related protein 1 homolog a, centractin alpha (yeast) AHNAK - ahnak nucleoprotein NUCB2 - nucleobindin 2 ATP6V1C1 - atpase, h⁺ transporting, lysosomal 42kda, v1 subunit c1 GALNT7 - udp-n-acetyl-alpha-d-galactosamine:polypeptide n-acetylgalactosaminyltransferase 7 (galnac-t7) CD248 - cd248 molecule, endosialin CHL1 - cell adhesion molecule l1-like WLS - wntless homolog (drosophila) PRKCD - protein kinase c, delta HIST1H2AD - histone cluster 1, h2ad MIF - macrophage migration inhibitory factor (glycosylation-inhibiting factor) HIST1H2BD - histone cluster 1, h2bd VPS37D - vacuolar protein sorting 37 homolog d (s. cerevisiae) GLOD4 - glyoxalase domain containing 4 CNDP2 - cndp dipeptidase 2 (metallopeptidase m20 family) CLIC5 - chloride intracellular channel 5 RPS18 - ribosomal protein s18 SLC44A2 - solute carrier family 44 (choline transporter), member 2
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					ZG16B - zymogen granule protein 16b TUBB6 - tubulin, beta 6 class v ITGA1 - integrin, alpha 1 RREB1 - ras responsive element binding protein 1 VCP - valosin containing protein RSU1 - ras suppressor protein 1 CANT1 - calcium activated nucleotidase 1 PROS1 - protein s (alpha) MNDA - myeloid cell nuclear differentiation antigen RYR1 - ryanodine receptor 1 (skeletal) EZR - ezrin VIM - vimentin ITGB7 - integrin, beta 7 SH3BGRL3 - sh3 domain binding glutamic acid-rich protein like 3 TMC8 - transmembrane channel-like 8
GO:1903561	extracellular vesicle	1.44E-06	5.43E-04	1.36	A1BG - alpha-1-b glycoprotein S100A4 - s100 calcium binding protein a4 S100A6 - s100 calcium binding protein a6 BGN - biglycan DDAH2 - dimethylarginine dimethylaminohydrolase 2 HIST2H2AC - histone cluster 2, h2ac HIST1H2BG - histone cluster 1, h2bg FTH1 - ferritin, heavy polypeptide 1 HIST1H2BL - histone cluster 1, h2bl PA2G4 - proliferation-associated 2g4, 38kda HIST1H2BM - histone cluster 1, h2bm HIST1H2BF - histone cluster 1, h2bf DDAH1 - dimethylarginine dimethylaminohydrolase 1

					SELENBP1 - selenium binding protein 1 HIST1H2BH - histone cluster 1, h2bh HIST1H2BI - histone cluster 1, h2bi HIST1H2BC - histone cluster 1, h2bc PRDX1 - peroxiredoxin 1 CNTN1 - contactin 1 FTL - ferritin, light polypeptide COL1A2 - collagen, type i, alpha 2 FUCA1 - fucosidase, alpha-l- 1, tissue FUCA2 - fucosidase, alpha-l- 2, plasma WNT7B - wingless-type mmtv integration site family, member 7b CCT5 - chaperonin containing tcp1, subunit 5 (epsilon) RHOJ - ras homolog family member j PSMB1 - proteasome (prosome, macropain) subunit, beta type, 1 ACTA1 - actin, alpha 1, skeletal muscle PCBD1 - pterin-4 alpha-carbinolamine dehydratase/dimerization cofactor of hepatocyte nuclear factor 1 alpha VASN - vasorin ACTC1 - actin, alpha, cardiac muscle 1 COMT - catechol-o-methyltransferase ACTG1 - actin, gamma 1 ACTG2 - actin, gamma 2, smooth muscle, enteric PSME1 - proteasome (prosome, macropain) activator subunit 1 (pa28 alpha) MAN1A2 - mannosidase, alpha, class 1a, member 2 CHMP1A - charged multivesicular body protein 1a MSN - moesin YWHAZ - tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, zeta polypeptide
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					GNG2 - guanine nucleotide binding protein (g protein), gamma 2 BBOX1 - butyrobetaine (gamma), 2-oxoglutarate dioxygenase (gamma-butyrobetaine hydroxylase) 1 C3 - complement component 3 SUB1 - sub1 homolog (s. cerevisiae) WNT4 - wntless-type mmtv integration site family, member 4 GALK1 - galactokinase 1 HNRNPC - heterogeneous nuclear ribonucleoprotein c (c1/c2) MUM1L1 - melanoma associated antigen (mutated) 1-like 1 GNG12 - guanine nucleotide binding protein (g protein), gamma 12 TNIK - traf2 and nck interacting kinase QSOX1 - quiescin q6 sulfhydryl oxidase 1 PDGFC - platelet derived growth factor c GATM - glycine amidinotransferase (l-arginine:glycine amidinotransferase) PTPN13 - protein tyrosine phosphatase, non-receptor type 13 (apo-1/cd95 (fas)-associated phosphatase) PTPRA - protein tyrosine phosphatase, receptor type, a PHPT1 - phosphohistidine phosphatase 1 PECAM1 - platelet/endothelial cell adhesion molecule 1 PTPRF - protein tyrosine phosphatase, receptor type, f PTPRG - protein tyrosine phosphatase, receptor type, g RAB34 - rab34, member ras oncogene family PABPC1L - poly(a) binding protein, cytoplasmic 1-like ADIRF - adipogenesis regulatory factor CACNA2D1 - calcium channel, voltage-dependent, alpha 2/delta subunit 1 TXNDC16 - thioredoxin domain containing 16 AEBP1 - ae binding protein 1 CALB1 - calbindin 1, 28kda
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					TUBB4B - tubulin, beta 4b class ivb EPHX2 - epoxide hydrolase 2, cytoplasmic FAM213B - family with sequence similarity 213, member b SLC27A2 - solute carrier family 27 (fatty acid transporter), member 2 HPGD - hydroxyprostaglandin dehydrogenase 15-(nad) SGSH - n-sulfoglucosamine sulfohydrolase S100A16 - s100 calcium binding protein a16 CALR - calreticulin PYGL - phosphorylase, glycogen, liver AHCY - adenosylhomocysteinase TGFB1 - transforming growth factor, beta-induced, 68kda CANX - calnexin RAB35 - rab35, member ras oncogene family LAMB1 - laminin, beta 1 SHMT2 - serine hydroxymethyltransferase 2 (mitochondrial) LAMB2 - laminin, beta 2 (laminin s) SPON2 - spondin 2, extracellular matrix protein RAB13 - rab13, member ras oncogene family RAB27B - rab27b, member ras oncogene family MOB1B - mob kinase activator 1b ALDH2 - aldehyde dehydrogenase 2 family (mitochondrial) LCP1 - lymphocyte cytosolic protein 1 (l-plastin) CAT - catalase CST3 - cystatin c TIMP1 - timp metalloproteinase inhibitor 1 LDHA - lactate dehydrogenase a HSPA6 - heat shock 70kda protein 6 (hsp70b') MYL6 - myosin, light chain 6, alkali, smooth muscle and non-muscle
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					TMEM256 - transmembrane protein 256 HSPB1 - heat shock 27kda protein 1 RAN - ran, member ras oncogene family SLC1A4 - solute carrier family 1 (glutamate/neutral amino acid transporter), member 4 HSP90AA1 - heat shock protein 90kda alpha (cytosolic), class a member 1 GLG1 - golgi glycoprotein 1 LFNG - lfng o-fucosylpeptide 3-beta-n-acetylglucosaminyltransferase SERPINI2 - serpin peptidase inhibitor, clade i (pancpin), member 2 MXRA8 - matrix-remodelling associated 8 LGALS3 - lectin, galactoside-binding, soluble, 3 ALPL - alkaline phosphatase, liver/bone/kidney RAP2B - rap2b, member of ras oncogene family SLC3A2 - solute carrier family 3 (amino acid transporter heavy chain), member 2 ARL15 - adp-ribosylation factor-like 15 CRB2 - crumbs homolog 2 (drosophila) RARS - arginyl-trna synthetase GLUL - glutamate-ammonia ligase CCL28 - chemokine (c-c motif) ligand 28 F12 - coagulation factor xii (hageman factor) CTSH - cathepsin h HIST1H2AH - histone cluster 1, h2ah PRSS23 - protease, serine, 23 ANGPT1 - angiopoietin 1 CAP1 - cap, adenylate cyclase-associated protein 1 (yeast) GNAQ - guanine nucleotide binding protein (g protein), q polypeptide VAT1 - vesicle amine transport protein 1 homolog (t. californica) ACSL4 - acyl-coa synthetase long-chain family member 4
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					FAH - fumarylacetoacetate hydrolase (fumarylacetoacetase) RBP4 - retinol binding protein 4, plasma GNB2 - guanine nucleotide binding protein (g protein), beta polypeptide 2 CXCR4 - chemokine (c-x-c motif) receptor 4 GNG4 - guanine nucleotide binding protein (g protein), gamma 4 ICAM3 - intercellular adhesion molecule 3 SLC15A2 - solute carrier family 15 (oligopeptide transporter), member 2 GNG5 - guanine nucleotide binding protein (g protein), gamma 5 CIB1 - calcium and integrin binding 1 (calmyrin) EFEMP1 - egf containing fibulin-like extracellular matrix protein 1 AKR1C3 - aldo-keto reductase family 1, member c3 PTER - phosphotriesterase related PLCG2 - phospholipase c, gamma 2 (phosphatidylinositol-specific) LSP1 - lymphocyte-specific protein 1 CD38 - cd38 molecule FAM129B - family with sequence similarity 129, member b EFEMP2 - egf containing fibulin-like extracellular matrix protein 2 SLC4A4 - solute carrier family 4 (sodium bicarbonate cotransporter), member 4 UFC1 - ubiquitin-fold modifier conjugating enzyme 1 PRDX4 - peroxiredoxin 4 VAMP8 - vesicle-associated membrane protein 8 LYN - v-src-1 yamaguchi sarcoma viral related oncogene homolog CD58 - cd58 molecule CD63 - cd63 molecule SMO - smoothened, frizzled family receptor APOE - apolipoprotein e SLC26A11 - solute carrier family 26 (anion exchanger), member 11 HSP90B1 - heat shock protein 90kda beta (grp94), member 1
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					APRT - adenine phosphoribosyltransferase CPNE6 - copine vi (neuronal) CD81 - cd81 molecule MARCKS - myristoylated alanine-rich protein kinase c substrate FAS - fas cell surface death receptor NT5C - 5', 3'-nucleotidase, cytosolic SNCG - synuclein, gamma (breast cancer-specific protein 1) B4GALT3 - udp-gal:betaglcnac beta 1,4- galactosyltransferase, polypeptide 3 SNRPD2 - small nuclear ribonucleoprotein d2 polypeptide 16.5kda DNPH1 - 2'-deoxynucleoside 5'-phosphate n-hydrolase 1 CDH11 - cadherin 11, type 2, ob-cadherin (osteoblast) GALM - galactose mutarotase (aldose 1-epimerase) CTDSP1 - ctd (carboxy-terminal domain, rna polymerase ii, polypeptide a) small phosphatase 1 NAGK - n-acetylglucosamine kinase SOD3 - superoxide dismutase 3, extracellular MAN1A1 - mannosidase, alpha, class 1a, member 1 ARHGDIB - rho gdp dissociation inhibitor (gdi) beta IGFBP7 - insulin-like growth factor binding protein 7 AKR1C1 - aldo-keto reductase family 1, member c1 PHF15 - phd finger protein 15 ARL3 - adp-ribosylation factor-like 3 POTEF - pote ankyrin domain family, member f DDT - d-dopachrome tautomerase CPNE7 - copine vii NIT2 - nitrilase family, member 2 ATP6V0A4 - atpase, h⁺ transporting, lysosomal v0 subunit a4 CPNE8 - copine viii
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					TOM1L1 - target of myb1 (chicken)-like 1 CFD - complement factor d (adipsin) ASL - argininosuccinate lyase MYL12B - myosin, light chain 12b, regulatory TTN - titin ASS1 - argininosuccinate synthase 1 ABCB6 - atp-binding cassette, sub-family b (mdr/tap), member 6 FN1 - fibronectin 1 TUBB2A - tubulin, beta 2a class iia TMEM8A - transmembrane protein 8a PMVK - phosphomevalonate kinase MPP6 - membrane protein, palmitoylated 6 (maguk p55 subfamily member 6) NPHS1 - nephrosis 1, congenital, finnish type (nephrin) GSS - glutathione synthetase SLC39A12 - solute carrier family 39 (zinc transporter), member 12 CREG1 - cellular repressor of e1a-stimulated genes 1 TXN - thioredoxin GSTM3 - glutathione s-transferase mu 3 (brain) CHID1 - chitinase domain containing 1 GSTP1 - glutathione s-transferase pi 1 CYB5R1 - cytochrome b5 reductase 1 RPL12 - ribosomal protein l12 CPNE2 - copine ii HEBP1 - heme binding protein 1 UBA52 - ubiquitin a-52 residue ribosomal protein fusion product 1 SCPEP1 - serine carboxypeptidase 1 ARPC5 - actin related protein 2/3 complex, subunit 5, 16kda GNB4 - guanine nucleotide binding protein (g protein), beta polypeptide 4
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					CHST14 - carbohydrate (n-acetylgalactosamine 4-0) sulfotransferase 14 SSR4 - signal sequence receptor, delta ARPC2 - actin related protein 2/3 complex, subunit 2, 34kda RRAS2 - related ras viral (r-ras) oncogene homolog 2 RPL35A - ribosomal protein l35a GGCT - gamma-glutamylcyclotransferase NPEPPS - aminopeptidase puromycin sensitive ACTR1A - arp1 actin-related protein 1 homolog a, centractin alpha (yeast) AHNAK - ahnak nucleoprotein NUCB2 - nucleobindin 2 ATP6V1C1 - atpase, h+ transporting, lysosomal 42kda, v1 subunit c1 GALNT7 - udp-n-acetyl-alpha-d-galactosamine:polypeptide n-acetylgalactosaminyltransferase 7 (galnac-t7) CD248 - cd248 molecule, endosialin CHL1 - cell adhesion molecule 11-like WLS - wntless homolog (drosophila) PRKCD - protein kinase c, delta HIST1H2AD - histone cluster 1, h2ad MIF - macrophage migration inhibitory factor (glycosylation-inhibiting factor) HIST1H2BD - histone cluster 1, h2bd VPS37D - vacuolar protein sorting 37 homolog d (s. cerevisiae) GLOD4 - glyoxalase domain containing 4 CNDP2 - cndp dipeptidase 2 (metallopeptidase m20 family) CLIC5 - chloride intracellular channel 5 RPS18 - ribosomal protein s18 SLC44A2 - solute carrier family 44 (choline transporter), member 2 ZG16B - zymogen granule protein 16b TUBB6 - tubulin, beta 6 class v
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					ITGA1 - integrin, alpha 1 RREB1 - ras responsive element binding protein 1 VCP - valosin containing protein RSU1 - ras suppressor protein 1 CANT1 - calcium activated nucleotidase 1 PROS1 - protein s (alpha) MNDA - myeloid cell nuclear differentiation antigen RYR1 - ryanodine receptor 1 (skeletal) EZR - ezrin VIM - vimentin ITGB7 - integrin, beta 7 SH3BGRL3 - sh3 domain binding glutamic acid-rich protein like 3 TMC8 - transmembrane channel-like 8
GO:0043230	extracellular organelle	1.53E-06	4.83E-04	1.36	A1BG - alpha-1-b glycoprotein S100A4 - s100 calcium binding protein a4 S100A6 - s100 calcium binding protein a6 BGN - biglycan DDAH2 - dimethylarginine dimethylaminohydrolase 2 HIST2H2AC - histone cluster 2, h2ac HIST1H2BG - histone cluster 1, h2bg FTH1 - ferritin, heavy polypeptide 1 HIST1H2BL - histone cluster 1, h2bl PA2G4 - proliferation-associated 2g4, 38kda HIST1H2BM - histone cluster 1, h2bm HIST1H2BF - histone cluster 1, h2bf DDAH1 - dimethylarginine dimethylaminohydrolase 1 SELENBP1 - selenium binding protein 1 HIST1H2BH - histone cluster 1, h2bh

					HIST1H2BI - histone cluster 1, h2bi HIST1H2BC - histone cluster 1, h2bc PRDX1 - peroxiredoxin 1 CNTN1 - contactin 1 FTL - ferritin, light polypeptide COL1A2 - collagen, type i, alpha 2 FUCA1 - fucosidase, alpha-l- 1, tissue FUCA2 - fucosidase, alpha-l- 2, plasma WNT7B - wntless-type mmtv integration site family, member 7b CCT5 - chaperonin containing tcp1, subunit 5 (epsilon) RHOJ - ras homolog family member j PSMB1 - proteasome (prosome, macropain) subunit, beta type, 1 ACTA1 - actin, alpha 1, skeletal muscle PCBD1 - pterin-4 alpha-carbinolamine dehydratase/dimerization cofactor of hepatocyte nuclear factor 1 alpha VASN - vasorin ACTC1 - actin, alpha, cardiac muscle 1 COMT - catechol-o-methyltransferase ACTG1 - actin, gamma 1 ACTG2 - actin, gamma 2, smooth muscle, enteric PSME1 - proteasome (prosome, macropain) activator subunit 1 (pa28 alpha) MAN1A2 - mannosidase, alpha, class 1a, member 2 CHMP1A - charged multivesicular body protein 1a MSN - moesin YWHAZ - tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, zeta polypeptide GNG2 - guanine nucleotide binding protein (g protein), gamma 2 BBOX1 - butyrobetaine (gamma), 2-oxoglutarate dioxygenase (gamma-
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					butyrobetaine hydroxylase) 1 C3 - complement component 3 SUB1 - sub1 homolog (s. cerevisiae) WNT4 - wntless-type mmtv integration site family, member 4 GALK1 - galactokinase 1 HNRNPC - heterogeneous nuclear ribonucleoprotein c (c1/c2) MUM1L1 - melanoma associated antigen (mutated) 1-like 1 GNG12 - guanine nucleotide binding protein (g protein), gamma 12 TNIK - traf2 and nck interacting kinase QSOX1 - quiescin q6 sulfhydryl oxidase 1 PDGFC - platelet derived growth factor c GATM - glycine amidinotransferase (l-arginine:glycine amidinotransferase) PTPN13 - protein tyrosine phosphatase, non-receptor type 13 (apo-1/cd95 (fas)-associated phosphatase) PTPRA - protein tyrosine phosphatase, receptor type, a PHPT1 - phosphohistidine phosphatase 1 PECAM1 - platelet/endothelial cell adhesion molecule 1 PTPRF - protein tyrosine phosphatase, receptor type, f PTPRG - protein tyrosine phosphatase, receptor type, g RAB34 - rab34, member ras oncogene family PABPC1L - poly(a) binding protein, cytoplasmic 1-like ADIRF - adipogenesis regulatory factor CACNA2D1 - calcium channel, voltage-dependent, alpha 2/delta subunit 1 TXNDC16 - thioredoxin domain containing 16 AEBP1 - ae binding protein 1 CALB1 - calbindin 1, 28kda TUBB4B - tubulin, beta 4b class ivb EPHX2 - epoxide hydrolase 2, cytoplasmic
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					FAM213B - family with sequence similarity 213, member b SLC27A2 - solute carrier family 27 (fatty acid transporter), member 2 HPGD - hydroxyprostaglandin dehydrogenase 15-(nad) SGSH - n-sulfoglucosamine sulfohydrolase S100A16 - s100 calcium binding protein a16 CALR - calreticulin PYGL - phosphorylase, glycogen, liver AHCY - adenosylhomocysteinase TGFB1 - transforming growth factor, beta-induced, 68kda CANX - calnexin RAB35 - rab35, member ras oncogene family LAMB1 - laminin, beta 1 SHMT2 - serine hydroxymethyltransferase 2 (mitochondrial) LAMB2 - laminin, beta 2 (laminin s) SPON2 - spondin 2, extracellular matrix protein RAB13 - rab13, member ras oncogene family RAB27B - rab27b, member ras oncogene family MOB1B - mob kinase activator 1b ALDH2 - aldehyde dehydrogenase 2 family (mitochondrial) LCP1 - lymphocyte cytosolic protein 1 (l-plastin) CAT - catalase CST3 - cystatin c TIMP1 - timp metalloproteinase inhibitor 1 LDHA - lactate dehydrogenase a HSPA6 - heat shock 70kda protein 6 (hsp70b') MYL6 - myosin, light chain 6, alkali, smooth muscle and non-muscle TMEM256 - transmembrane protein 256 HSPB1 - heat shock 27kda protein 1
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					RAN - ran, member ras oncogene family SLC1A4 - solute carrier family 1 (glutamate/neutral amino acid transporter), member 4 HSP90AA1 - heat shock protein 90kda alpha (cytosolic), class a member 1 GLG1 - golgi glycoprotein 1 LFNG - lfng o-fucosylpeptide 3-beta-n-acetylglucosaminyltransferase SERPINI2 - serpin peptidase inhibitor, clade i (pancpin), member 2 MXRA8 - matrix-remodelling associated 8 LGALS3 - lectin, galactoside-binding, soluble, 3 ALPL - alkaline phosphatase, liver/bone/kidney RAP2B - rap2b, member of ras oncogene family SLC3A2 - solute carrier family 3 (amino acid transporter heavy chain), member 2 ARL15 - adp-ribosylation factor-like 15 CRB2 - crumbs homolog 2 (drosophila) RARS - arginyl-trna synthetase GLUL - glutamate-ammonia ligase CCL28 - chemokine (c-c motif) ligand 28 F12 - coagulation factor xii (hageman factor) CTSH - cathepsin h HIST1H2AH - histone cluster 1, h2ah PRSS23 - protease, serine, 23 ANGPT1 - angiopoietin 1 CAP1 - cap, adenylate cyclase-associated protein 1 (yeast) GNAQ - guanine nucleotide binding protein (g protein), q polypeptide VAT1 - vesicle amine transport protein 1 homolog (t. californica) ACSL4 - acyl-coa synthetase long-chain family member 4 FAH - fumarylacetoacetate hydrolase (fumarylacetoacetase) RBP4 - retinol binding protein 4, plasma
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					GNB2 - guanine nucleotide binding protein (g protein), beta polypeptide 2 CXCR4 - chemokine (c-x-c motif) receptor 4 GNG4 - guanine nucleotide binding protein (g protein), gamma 4 ICAM3 - intercellular adhesion molecule 3 SLC15A2 - solute carrier family 15 (oligopeptide transporter), member 2 GNG5 - guanine nucleotide binding protein (g protein), gamma 5 CIB1 - calcium and integrin binding 1 (calmyrin) EFEMP1 - egf containing fibulin-like extracellular matrix protein 1 AKR1C3 - aldo-keto reductase family 1, member c3 PTER - phosphotriesterase related PLCG2 - phospholipase c, gamma 2 (phosphatidylinositol-specific) LSP1 - lymphocyte-specific protein 1 CD38 - cd38 molecule FAM129B - family with sequence similarity 129, member b EFEMP2 - egf containing fibulin-like extracellular matrix protein 2 SLC4A4 - solute carrier family 4 (sodium bicarbonate cotransporter), member 4 UFC1 - ubiquitin-fold modifier conjugating enzyme 1 PRDX4 - peroxiredoxin 4 VAMP8 - vesicle-associated membrane protein 8 LYN - v-yes-1 yamaguchi sarcoma viral related oncogene homolog CD58 - cd58 molecule CD63 - cd63 molecule SMO - smoothened, frizzled family receptor APOE - apolipoprotein e SLC26A11 - solute carrier family 26 (anion exchanger), member 11 HSP90B1 - heat shock protein 90kda beta (grp94), member 1 APRT - adenine phosphoribosyltransferase CPNE6 - copine vi (neuronal)
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					CD81 - cd81 molecule MARCKS - myristoylated alanine-rich protein kinase c substrate FAS - fas cell surface death receptor NT5C - 5', 3'-nucleotidase, cytosolic SNCG - synuclein, gamma (breast cancer-specific protein 1) B4GALT3 - udp-gal:betaglcnac beta 1,4- galactosyltransferase, polypeptide 3 SNRPD2 - small nuclear ribonucleoprotein d2 polypeptide 16.5kda DNPH1 - 2'-deoxynucleoside 5'-phosphate n-hydrolase 1 CDH11 - cadherin 11, type 2, ob-cadherin (osteoblast) GALM - galactose mutarotase (aldose 1-epimerase) CTDSP1 - ctd (carboxy-terminal domain, rna polymerase ii, polypeptide a) small phosphatase 1 NAGK - n-acetylglucosamine kinase SOD3 - superoxide dismutase 3, extracellular MAN1A1 - mannosidase, alpha, class 1a, member 1 ARHGDIB - rho gdp dissociation inhibitor (gdi) beta IGFBP7 - insulin-like growth factor binding protein 7 AKR1C1 - aldo-keto reductase family 1, member c1 PHF15 - phd finger protein 15 ARL3 - adp-ribosylation factor-like 3 POTEF - pote ankyrin domain family, member f DDT - d-dopachrome tautomerase CPNE7 - copine vii NIT2 - nitrilase family, member 2 ATP6V0A4 - atpase, h⁺ transporting, lysosomal v0 subunit a4 CPNE8 - copine viii TOM1L1 - target of myb1 (chicken)-like 1 CFD - complement factor d (adipsin)
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					ASL - argininosuccinate lyase MYL12B - myosin, light chain 12b, regulatory TTN - titin ASS1 - argininosuccinate synthase 1 ABCB6 - atp-binding cassette, sub-family b (mdr/tap), member 6 FN1 - fibronectin 1 TUBB2A - tubulin, beta 2a class iia TMEM8A - transmembrane protein 8a PMVK - phosphomevalonate kinase MPP6 - membrane protein, palmitoylated 6 (maguk p55 subfamily member 6) NPHS1 - nephrosis 1, congenital, finnish type (nephrin) GSS - glutathione synthetase SLC39A12 - solute carrier family 39 (zinc transporter), member 12 CREG1 - cellular repressor of e1a-stimulated genes 1 TXN - thioredoxin GSTM3 - glutathione s-transferase mu 3 (brain) CHID1 - chitinase domain containing 1 GSTP1 - glutathione s-transferase pi 1 CYB5R1 - cytochrome b5 reductase 1 RPL12 - ribosomal protein l12 CPNE2 - copine ii HEBP1 - heme binding protein 1 UBA52 - ubiquitin a-52 residue ribosomal protein fusion product 1 SCPEP1 - serine carboxypeptidase 1 ARPC5 - actin related protein 2/3 complex, subunit 5, 16kda GNB4 - guanine nucleotide binding protein (g protein), beta polypeptide 4 CHST14 - carbohydrate (n-acetylgalactosamine 4-0) sulfotransferase 14 SSR4 - signal sequence receptor, delta
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					ARPC2 - actin related protein 2/3 complex, subunit 2, 34kda RRAS2 - related ras viral (r-ras) oncogene homolog 2 RPL35A - ribosomal protein l35a GGCT - gamma-glutamylcyclotransferase NPEPPS - aminopeptidase puromycin sensitive ACTR1A - arp1 actin-related protein 1 homolog a, centractin alpha (yeast) AHNAK - ahnak nucleoprotein NUCB2 - nucleobindin 2 ATP6V1C1 - atpase, h⁺ transporting, lysosomal 42kda, v1 subunit c1 GALNT7 - udp-n-acetyl-alpha-d-galactosamine:polypeptide n-acetylgalactosaminyltransferase 7 (galnac-t7) CD248 - cd248 molecule, endosialin CHL1 - cell adhesion molecule l1-like WLS - wntless homolog (drosophila) PRKCD - protein kinase c, delta HIST1H2AD - histone cluster 1, h2ad MIF - macrophage migration inhibitory factor (glycosylation-inhibiting factor) HIST1H2BD - histone cluster 1, h2bd VPS37D - vacuolar protein sorting 37 homolog d (s. cerevisiae) GLOD4 - glyoxalase domain containing 4 CNDP2 - cndp dipeptidase 2 (metallopeptidase m20 family) CLIC5 - chloride intracellular channel 5 RPS18 - ribosomal protein s18 SLC44A2 - solute carrier family 44 (choline transporter), member 2 ZG16B - zymogen granule protein 16b TUBB6 - tubulin, beta 6 class v ITGA1 - integrin, alpha 1 RREB1 - ras responsive element binding protein 1
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					VCP - valosin containing protein RSU1 - ras suppressor protein 1 CANT1 - calcium activated nucleotidase 1 PROS1 - protein s (alpha) MNDA - myeloid cell nuclear differentiation antigen RYSR1 - ryanodine receptor 1 (skeletal) EZR - ezrin VIM - vimentin ITGB7 - integrin, beta 7 SH3BGR13 - sh3 domain binding glutamic acid-rich protein like 3 TMC8 - transmembrane channel-like 8
GO:0031224	intrinsic component of membrane	3.16E-06	8.54E-04	1.22	STT3A - stt3a, subunit of the oligosaccharyltransferase complex (catalytic) SCN3B - sodium channel, voltage-gated, type iii, beta subunit SLC29A4 - solute carrier family 29 (equilibrative nucleoside transporter), member 4 P2RY1 - purinergic receptor p2y, g-protein coupled, 1 MCUR1 - mitochondrial calcium uniporter regulator 1 CHRNA6 - cholinergic receptor, nicotinic, alpha 6 (neuronal) ITPR2 - inositol 1,4,5-trisphosphate receptor, type 2 TMEM200A - transmembrane protein 200a ATF6 - activating transcription factor 6 CNR1 - cannabinoid receptor 1 (brain) CNTN1 - contactin 1 ABHD1 - abhydrolase domain containing 1 CREB3L3 - camp responsive element binding protein 3-like 3 MPZL1 - myelin protein zero-like 1 KCNA5 - potassium voltage-gated channel, shaker-related subfamily, member 5 OSBPL8 - oxysterol binding protein-like 8

					PSENEN - presenilin enhancer 2 homolog (c. elegans) FZD2 - frizzled family receptor 2 KCNG1 - potassium voltage-gated channel, subfamily g, member 1 IGSF6 - immunoglobulin superfamily, member 6 CYP4V2 - cytochrome p450, family 4, subfamily v, polypeptide 2 SCN9A - sodium channel, voltage-gated, type ix, alpha subunit MPV17L2 - mpv17 mitochondrial membrane protein-like 2 VASN - vasorin CTXN3 - cortexin 3 COMT - catechol-o-methyltransferase GPR88 - g protein-coupled receptor 88 SLC7A7 - solute carrier family 7 (amino acid transporter light chain, y+l system), member 7 GABRA3 - gamma-aminobutyric acid (gaba) a receptor, alpha 3 TMEM176B - transmembrane protein 176b GABRA5 - gamma-aminobutyric acid (gaba) a receptor, alpha 5 RTP4 - receptor (chemosensory) transporter protein 4 KCNK2 - potassium channel, subfamily k, member 2 GABRB1 - gamma-aminobutyric acid (gaba) a receptor, beta 1 RNF175 - ring finger protein 175 KCNN3 - potassium intermediate/small conductance calcium-activated channel, subfamily n, member 3 PCSK5 - proprotein convertase subtilisin/kexin type 5 ACVR2A - activin a receptor, type iia XYLT1 - xylosyltransferase i ADCY2 - adenylate cyclase 2 (brain) HSD3B7 - hydroxy-delta-5-steroid dehydrogenase, 3 beta- and steroid delta-isomerase 7
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					GALNT2 - udp-n-acetyl-alpha-d-galactosamine:polypeptide n-acetylgalactosaminyltransferase 2 (galnac-t2) ADCY7 - adenylate cyclase 7 TMTC3 - transmembrane and tetratricopeptide repeat containing 3 DNAJC1 - dnaj (hsp40) homolog, subfamily c, member 1 PTCHD1 - patched domain containing 1 SEMA4A - sema domain, immunoglobulin domain (ig), transmembrane domain (tm) and short cytoplasmic domain, (semaphorin) 4a PDGFRA - platelet-derived growth factor receptor, alpha polypeptide RGMB - rgm domain family, member b RAB3C - rab3c, member ras oncogene family HERPUD2 - herpud family member 2 AMIGO2 - adhesion molecule with ig-like domain 2 PTPLAD2 - protein tyrosine phosphatase-like a domain containing 2 SELPLG - selectin p ligand ADORA2B - adenosine a2b receptor TMEM215 - transmembrane protein 215 CLEC14A - c-type lectin domain family 14, member a TOMM5 - translocase of outer mitochondrial membrane 5 homolog (yeast) TMEM234 - transmembrane protein 234 AIFM2 - apoptosis-inducing factor, mitochondrion-associated, 2 SMCR7L - smith-magenis syndrome chromosome region, candidate 7-like LRRC3B - leucine rich repeat containing 3b PECAM1 - platelet/endothelial cell adhesion molecule 1 STXBP6 - syntaxin binding protein 6 (amisyn) ADRA2C - adrenoceptor alpha 2c NUS1 - nuclear undecaprenyl pyrophosphate synthase 1 homolog (s. cerevisiae) PNPLA3 - patatin-like phospholipase domain containing 3
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					ADRB2 - adrenoceptor beta 2, surface CHPF2 - chondroitin polymerizing factor 2 TMEM208 - transmembrane protein 208 GCNT1 - glucosaminyl (n-acetyl) transferase 1, core 2 TMEM87B - transmembrane protein 87b LYPD1 - ly6/plaur domain containing 1 GRIN3A - glutamate receptor, ionotropic, n-methyl-d-aspartate 3a SUSD1 - sushi domain containing 1 FIBCD1 - fibrinogen c domain containing 1 GGTA1P - glycoprotein, alpha-galactosyltransferase 1 pseudogene GHR - growth hormone receptor PTPLA - protein tyrosine phosphatase-like (proline instead of catalytic arginine), member a GJA1 - gap junction protein, alpha 1, 43kda TLCD2 - tlc domain containing 2 SDK2 - sidekick cell adhesion molecule 2 CNIH2 - cornichon homolog 2 (drosophila) ST6GAL1 - st6 beta-galactosamide alpha-2,6-sialyltransferase 1 GXYLT2 - glucoside xylosyltransferase 2 SCARA5 - scavenger receptor class a, member 5 (putative) LRRN2 - leucine rich repeat neuronal 2 ALOX5AP - arachidonate 5-lipoxygenase-activating protein TMEM256 - transmembrane protein 256 SLC1A3 - solute carrier family 1 (glial high affinity glutamate transporter), member 3 SLC4A3 - solute carrier family 4 (anion exchanger), member 3 SLC1A4 - solute carrier family 1 (glutamate/neutral amino acid transporter), member 4
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					GLG1 - golgi glycoprotein 1 LFNG - lfn g o-fucosylpeptide 3-beta-n-acetylglucosaminyltransferase MXRA8 - matrix-remodelling associated 8 GPNMB - glycoprotein (transmembrane) nmb ALPL - alkaline phosphatase, liver/bone/kidney NKAIN3 - na+/k+ transporting atpase interacting 3 SLC30A1 - solute carrier family 30 (zinc transporter), member 1 MERTK - c-mer proto-oncogene tyrosine kinase SLC3A2 - solute carrier family 3 (amino acid transporter heavy chain), member 2 TMPRSS5 - transmembrane protease, serine 5 CRB2 - crumbs homolog 2 (drosophila) SLC2A10 - solute carrier family 2 (facilitated glucose transporter), member 10 TMEM141 - transmembrane protein 141 C16orf58 - chromosome 16 open reading frame 58 MARC1 - mitochondrial amidoxime reducing component 1 LAPTM5 - lysosomal protein transmembrane 5 MLC1 - megalencephalic leukoencephalopathy with subcortical cysts 1 CHST7 - carbohydrate (n-acetylglucosamine 6-o) sulfotransferase 7 SLC7A2 - solute carrier family 7 (cationic amino acid transporter, y+ system), member 2 FAM171B - family with sequence similarity 171, member b SLC7A4 - solute carrier family 7, member 4 SLC8A3 - solute carrier family 8 (sodium/calcium exchanger), member 3 FNDC3B - fibronectin type iii domain containing 3b CX3CR1 - chemokine (c-x3-c motif) receptor 1 S1PR2 - sphingosine-1-phosphate receptor 2 VAT1 - vesicle amine transport protein 1 homolog (t. californica) NPDC1 - neural proliferation, differentiation and control, 1
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					CYBB - cytochrome b-245, beta polypeptide SLC35F2 - solute carrier family 35, member f2 CXCR4 - chemokine (c-x-c motif) receptor 4 FREM3 - fras1 related extracellular matrix 3 SLC15A2 - solute carrier family 15 (oligopeptide transporter), member 2 CD83 - cd83 molecule SLC16A2 - solute carrier family 16, member 2 (thyroid hormone transporter) LRP4 - low density lipoprotein receptor-related protein 4 TMEM9B - tmem9 domain family, member b LRP6 - low density lipoprotein receptor-related protein 6 IL17RD - interleukin 17 receptor d SLC19A1 - solute carrier family 19 (folate transporter), member 1 COMTD1 - catechol-o-methyltransferase domain containing 1 LSAMP - limbic system-associated membrane protein KIAA1024 - kiaa1024 FXYD1 - fxyd domain containing ion transport regulator 1 TMEM196 - transmembrane protein 196 SLN - sarcolipin CD163 - cd163 molecule PLP2 - proteolipid protein 2 (colonic epithelium-enriched) GLP2R - glucagon-like peptide 2 receptor LY6H - lymphocyte antigen 6 complex, locus h EMC7 - er membrane protein complex subunit 7 DNAJC14 - dnaj (hsp40) homolog, subfamily c, member 14 SAMD8 - sterile alpha motif domain containing 8 PCDH20 - protocadherin 20 SLC40A1 - solute carrier family 40 (iron-regulated transporter), member 1 TM9SF3 - transmembrane 9 superfamily member 3
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					SMO - smoothened, frizzled family receptor AGPAT1 - 1-acylglycerol-3-phosphate o-acyltransferase 1 SPTLC1 - serine palmitoyltransferase, long chain base subunit 1 FAS - fas cell surface death receptor GPR17 - g protein-coupled receptor 17 LST1 - leukocyte specific transcript 1 DAD1 - defender against cell death 1 AQP4 - aquaporin 4 RABAC1 - rab acceptor 1 (prenylated) ABCC6 - atp-binding cassette, sub-family c (cftr/mrp), member 6 GPR34 - g protein-coupled receptor 34 MLNR - motilin receptor TUSC3 - tumor suppressor candidate 3 GLRA3 - glycine receptor, alpha 3 MAN1A1 - mannosidase, alpha, class 1a, member 1 GDPD2 - glycerophosphodiester phosphodiesterase domain containing 2 MAOB - monoamine oxidase b ERLIN1 - er lipid raft associated 1 FADS2 - fatty acid desaturase 2 ATP6V0A4 - atpase, h⁺ transporting, lysosomal v0 subunit a4 GRID2 - glutamate receptor, ionotropic, delta 2 GIMAP1 - gtpase, imap family member 1 RNF43 - ring finger protein 43 SPPL3 - signal peptide peptidase like 3 YKT6 - ykt6 v-snare homolog (s. cerevisiae) CTXN1 - cortexin 1 DLK2 - delta-like 2 homolog (drosophila) DHCR7 - 7-dehydrocholesterol reductase
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					ACKR3 - atypical chemokine receptor 3 KCNG3 - potassium voltage-gated channel, subfamily g, member 3 GPR68 - g protein-coupled receptor 68 CD226 - cd226 molecule TMEM108 - transmembrane protein 108 LMAN2L - lectin, mannose-binding 2-like SERP1 - stress-associated endoplasmic reticulum protein 1 TNFSF13B - tumor necrosis factor (ligand) superfamily, member 13b DIO2 - deiodinase, iodothyronine, type ii IFI27L1 - interferon, alpha-inducible protein 27-like 1 B3GNT2 - udp-glcna:betagal beta-1,3-n-acetylglucosaminyltransferase 2 CRB1 - crumbs homolog 1 (drosophila) SSR2 - signal sequence receptor, beta (translocon-associated protein beta) ATP2B4 - atpase, ca⁺⁺ transporting, plasma membrane 4 SSR4 - signal sequence receptor, delta PLSCR4 - phospholipid scramblase 4 TSPAN18 - tetraspanin 18 PCDH17 - protocadherin 17 CERS1 - ceramide synthase 1 CNTN6 - contactin 6 SSTR1 - somatostatin receptor 1 HRASLS - hras-like suppressor DERL2 - derlin 2 PVRIG - poliovirus receptor related immunoglobulin domain containing MDGA1 - mam domain containing glycosylphosphatidylinositol anchor 1 PTGES - prostaglandin e synthase MGST1 - microsomal glutathione s-transferase 1 PGAM5 - phosphoglycerate mutase family member 5
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					CD248 - cd248 molecule, endosialin CHL1 - cell adhesion molecule 11-like CD99 - cd99 molecule TMEM159 - transmembrane protein 159 KCNMB4 - potassium large conductance calcium-activated channel, subfamily m, beta member 4 SLC44A2 - solute carrier family 44 (choline transporter), member 2 MARCH1 - membrane-associated ring finger (c3hc4) 1, e3 ubiquitin protein ligase ATL1 - atlastin gtpase 1 TMEM219 - transmembrane protein 219 GJB6 - gap junction protein, beta 6, 30kda CANT1 - calcium activated nucleotidase 1 SEZ6L - seizure related 6 homolog (mouse)-like FZD1 - frizzled family receptor 1 SIDT2 - sid1 transmembrane family, member 2 FKRP - fukutin related protein SYT4 - synaptotagmin iv FZD8 - frizzled family receptor 8 FZD9 - frizzled family receptor 9 TMC8 - transmembrane channel-like 8 KIAA1244 - kiaa1244 LCTL - lactase-like APH1B - aph1b gamma secretase subunit MRC1 - mannose receptor, c type 1 VSIG10L - v-set and immunoglobulin domain containing 10 like TMEM51 - transmembrane protein 51 CHST9 - carbohydrate (n-acetylgalactosamine 4-0) sulfotransferase 9 S1PR1 - sphingosine-1-phosphate receptor 1
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					PGRMC1 - progesterone receptor membrane component 1 CYP46A1 - cytochrome p450, family 46, subfamily a, polypeptide 1 TMEM43 - transmembrane protein 43 RTBDN - retbindin JPH3 - junctophilin 3 ADAM28 - adam metallopeptidase domain 28 TTYH1 - tweety homolog 1 (drosophila) EDNRB - endothelin receptor type b HCST - hematopoietic cell signal transducer CLDND2 - claudin domain containing 2 ALG14 - alg14, udp-n-acetylglucosaminyltransferase subunit TMEM47 - transmembrane protein 47 TBXA2R - thromboxane a2 receptor NPFFR2 - neuropeptide ff receptor 2 MR1 - major histocompatibility complex, class i-related GALNT16 - udp-n-acetyl-alpha-d-galactosamine:polypeptide n-acetylgalactosaminyltransferase 16 MEGF9 - multiple egf-like-domains 9 TRAM2 - translocation associated membrane protein 2 COL23A1 - collagen, type xxiii, alpha 1 MAN1A2 - mannosidase, alpha, class 1a, member 2 PTCH1 - patched 1 SLC7A11 - solute carrier family 7 (anionic amino acid transporter light chain, xc-system), member 11 PTGER3 - prostaglandin e receptor 3 (subtype ep3) PTGER4 - prostaglandin e receptor 4 (subtype ep4) MFSD12 - major facilitator superfamily domain containing 12 NDUFA11 - nadh dehydrogenase (ubiquinone) 1 alpha subcomplex, 11, 14.7kda
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					TMEFF2 - transmembrane protein with egf-like and two follistatin-like domains 2 RNF150 - ring finger protein 150 MYADM - myeloid-associated differentiation marker STX12 - syntaxin 12 TMEM17 - transmembrane protein 17 ZNF219 - zinc finger protein 219 TMEM258 - transmembrane protein 258 KDELRL1 - kdel (lys-asp-glu-leu) endoplasmic reticulum protein retention receptor 1 CADM1 - cell adhesion molecule 1 ARMC10 - armadillo repeat containing 10 CRIM1 - cysteine rich transmembrane bmp regulator 1 (chordin-like) EMP1 - epithelial membrane protein 1 QSOX1 - quiescin q6 sulfhydryl oxidase 1 EMP3 - epithelial membrane protein 3 TPST1 - tyrosylprotein sulfotransferase 1 B3GALT6 - udp-gal:betagal beta 1,3-galactosyltransferase polypeptide 6 CLEC9A - c-type lectin domain family 9, member a TMTC1 - transmembrane and tetratricopeptide repeat containing 1 NYNRIN - nyn domain and retroviral integrase containing PTPRA - protein tyrosine phosphatase, receptor type, a TMEM120A - transmembrane protein 120a MLEC - malectin SLC44A3 - solute carrier family 44, member 3 PTPRF - protein tyrosine phosphatase, receptor type, f PTPRG - protein tyrosine phosphatase, receptor type, g PIRT - phosphoinositide-interacting regulator of transient receptor potential channels
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					UQCR11 - ubiquinol-cytochrome c reductase, complex iii subunit xi MANEAL - mannosidase, endo-alpha-like TEK - tek tyrosine kinase, endothelial BET1L - bet1 golgi vesicular membrane trafficking protein-like PTPRZ1 - protein tyrosine phosphatase, receptor-type, z polypeptide 1 GOLM1 - golgi membrane protein 1 SLC52A2 - solute carrier family 52 (riboflavin transporter), member 2 SLC27A5 - solute carrier family 27 (fatty acid transporter), member 5 SLC27A3 - solute carrier family 27 (fatty acid transporter), member 3 SLC27A2 - solute carrier family 27 (fatty acid transporter), member 2 TAPT1 - transmembrane anterior posterior transformation 1 ERBB2 - v-erb-b2 avian erythroblastic leukemia viral oncogene homolog 2 MTCH1 - mitochondrial carrier 1 CALR - calreticulin GCNT4 - glucosaminyl (n-acetyl) transferase 4, core 2 TMED1 - transmembrane emp24 protein transport domain containing 1 CANX - calnexin RAB35 - rab35, member ras oncogene family TANGO6 - transport and golgi organization 6 homolog (drosophila) CD24 - cd24 molecule CHST1 - carbohydrate (keratan sulfate gal-6) sulfotransferase 1 TMEM100 - transmembrane protein 100 IFI27L2 - interferon, alpha-inducible protein 27-like 2 THBD - thrombomodulin RAB27B - rab27b, member ras oncogene family TIMM50 - translocase of inner mitochondrial membrane 50 homolog (s. cerevisiae) GOLT1A - golgi transport 1a TMEM53 - transmembrane protein 53
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					HEPH - hephaestin MS4A4A - membrane-spanning 4-domains, subfamily a, member 4a CAV2 - caveolin 2 DEGS1 - delta(4)-desaturase, sphingolipid 1 KIRREL2 - kin of irre like 2 (drosophila) LRRN1 - leucine rich repeat neuronal 1 SLC29A3 - solute carrier family 29 (equilibrative nucleoside transporter), member 3 TMEM115 - transmembrane protein 115 NKAIN4 - na⁺/k⁺ transporting atpase interacting 4 TLR2 - toll-like receptor 2 TMEM173 - transmembrane protein 173 TLR3 - toll-like receptor 3 TLR4 - toll-like receptor 4 RER1 - rer1 retention in endoplasmic reticulum 1 homolog (s. cerevisiae) DRAM1 - dna-damage regulated autophagy modulator 1 TM7SF2 - transmembrane 7 superfamily member 2 HTR1A - 5-hydroxytryptamine (serotonin) receptor 1a, g protein-coupled HTR7 - 5-hydroxytryptamine (serotonin) receptor 7, adenylate cyclase-coupled CD2 - cd2 molecule ACSL4 - acyl-coa synthetase long-chain family member 4 CD6 - cd6 molecule STYK1 - serine/threonine/tyrosine kinase 1 CD8A - cd8a molecule NDUFA3 - nadh dehydrogenase (ubiquinone) 1 alpha subcomplex, 3, 9kda ICAM3 - intercellular adhesion molecule 3 TSPAN33 - tetraspanin 33 TMEM176A - transmembrane protein 176a
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					PLB1 - phospholipase b1 PRPH2 - peripherin 2 (retinal degeneration, slow) LGR4 - leucine-rich repeat containing g protein-coupled receptor 4 NDUFB1 - nadh dehydrogenase (ubiquinone) 1 beta subcomplex, 1, 7kda TMEM186 - transmembrane protein 186 MILR1 - mast cell immunoglobulin-like receptor 1 CD33 - cd33 molecule FCGR1B - fc fragment of igg, high affinity ib, receptor (cd64) TMEM164 - transmembrane protein 164 P2RY14 - purinergic receptor p2y, g-protein coupled, 14 CD38 - cd38 molecule TMEM158 - transmembrane protein 158 (gene/pseudogene) SLC4A4 - solute carrier family 4 (sodium bicarbonate cotransporter), member 4 MBOAT2 - membrane bound o-acyltransferase domain containing 2 VAMP8 - vesicle-associated membrane protein 8 TMEM117 - transmembrane protein 117 CD58 - cd58 molecule CD63 - cd63 molecule ATL3 - atlastin gtpase 3 TMEM18 - transmembrane protein 18 SLC26A11 - solute carrier family 26 (anion exchanger), member 11 CD81 - cd81 molecule CD151 - cd151 molecule (raph blood group) HYAL2 - hyaluronoglucosaminidase 2 TMEM136 - transmembrane protein 136 SLC30A10 - solute carrier family 30, member 10 B4GALT3 - udp-gal:betaglcnac beta 1,4- galactosyltransferase, polypeptide 3 IFNAR1 - interferon (alpha, beta and omega) receptor 1
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					B4GALT2 - udp-gal:betaglcnac beta 1,4- galactosyltransferase, polypeptide 2 IL17RB - interleukin 17 receptor b B3GALT4 - udp-gal:betaglcnac beta 1,3-galactosyltransferase, polypeptide 4 B3GALNT1 - beta-1,3-n-acetylgalactosaminyltransferase 1 (globoside blood group) GPC5 - glypican 5 CDH8 - cadherin 8, type 2 SERTM1 - serine-rich and transmembrane domain containing 1 CDH11 - cadherin 11, type 2, ob-cadherin (osteoblast) ZFAND2B - zinc finger, an1-type domain 2b MS4A15 - membrane-spanning 4-domains, subfamily a, member 15 SYT10 - synaptotagmin x DHRS7B - dehydrogenase/reductase (sdr family) member 7b CMTM8 - cklf-like marvel transmembrane domain containing 8 MS4A7 - membrane-spanning 4-domains, subfamily a, member 7 SLC25A33 - solute carrier family 25 (pyrimidine nucleotide carrier), member 33 PRAF2 - pra1 domain family, member 2 RNF139 - ring finger protein 139 HCN4 - hyperpolarization activated cyclic nucleotide-gated potassium channel 4 HEPACAM - hepatic and glial cell adhesion molecule TNFRSF14 - tumor necrosis factor receptor superfamily, member 14 LRP10 - low density lipoprotein receptor-related protein 10 FAM174B - family with sequence similarity 174, member b HRH3 - histamine receptor h3 PXMP4 - peroxisomal membrane protein 4, 24kda ROBO1 - roundabout, axon guidance receptor, homolog 1 (drosophila) FMO2 - flavin containing monooxygenase 2 (non-functional) FMO5 - flavin containing monooxygenase 5
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					MARCH8 - membrane-associated ring finger (c3hc4) 8, e3 ubiquitin protein ligase TNFRSF11A - tumor necrosis factor receptor superfamily, member 11a, nfkb activator ABCB6 - atp-binding cassette, sub-family b (mdr/tap), member 6 SLC25A48 - solute carrier family 25, member 48 TMEM8A - transmembrane protein 8a MRAP2 - melanocortin 2 receptor accessory protein 2 CMTM7 - cklf-like marvel transmembrane domain containing 7 RTP1 - receptor (chemosensory) transporter protein 1 PIGV - phosphatidylinositol glycan anchor biosynthesis, class v NPHS1 - nephrosis 1, congenital, finnish type (nephrin) FOLR2 - folate receptor 2 (fetal) TMEM238 - transmembrane protein 238 SHISA9 - shisa family member 9 SYNPR - synaptoporin SLC39A12 - solute carrier family 39 (zinc transporter), member 12 TMEM101 - transmembrane protein 101 BTNL9 - butyrophilin-like 9 SIGIRR - single immunoglobulin and toll-interleukin 1 receptor (tir) domain IL3RA - interleukin 3 receptor, alpha (low affinity) VSIG4 - v-set and immunoglobulin domain containing 4 CYB5R1 - cytochrome b5 reductase 1 GPC6 - glypican 6 TYROBP - tyro protein tyrosine kinase binding protein NPY1R - neuropeptide y receptor y1 NPY5R - neuropeptide y receptor y5 NRP1 - neuropilin 1 TSPAN2 - tetraspanin 2
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					CHST14 - carbohydrate (n-acetylgalactosamine 4-0) sulfotransferase 14 SLC2A12 - solute carrier family 2 (facilitated glucose transporter), member 12 CD84 - cd84 molecule SMIM4 - small integral membrane protein 4 OST4 - oligosaccharyltransferase 4 homolog (s. cerevisiae) IL12RB2 - interleukin 12 receptor, beta 2 NKAIN2 - na⁺/k⁺ transporting atpase interacting 2 IL13RA2 - interleukin 13 receptor, alpha 2 CCDC167 - coiled-coil domain containing 167 TMEM54 - transmembrane protein 54 DDR2 - discoidin domain receptor tyrosine kinase 2 TMEM150C - transmembrane protein 150c TMEM200C - transmembrane protein 200c NTSR1 - neurotensin receptor 1 (high affinity) TENM3 - teneurin transmembrane protein 3 GALNT7 - udp-n-acetyl-alpha-d-galactosamine:polypeptide n-acetylgalactosaminyltransferase 7 (galnac-t7) CCDC90B - coiled-coil domain containing 90b GPR143 - g protein-coupled receptor 143 WLS - wntless homolog (drosophila) LRP1B - low density lipoprotein receptor-related protein 1b DOLK - dolichol kinase PLXNC1 - plexin c1 DHRS9 - dehydrogenase/reductase (sdr family) member 9 BCAN - brevican FXYD5 - fxyd domain containing ion transport regulator 5 OPRM1 - opioid receptor, mu 1 CACNA1H - calcium channel, voltage-dependent, t type, alpha 1h subunit
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					SLITRK2 - slit and ntrk-like family, member 2 SLCO1C1 - solute carrier organic anion transporter family, member 1c1 PGAP1 - post-gpi attachment to proteins 1 CCR1 - chemokine (c-c motif) receptor 1 RYSR1 - ryanodine receptor 1 (skeletal) CALCRL - calcitonin receptor-like CCR5 - chemokine (c-c motif) receptor 5 (gene/pseudogene) RYSR3 - ryanodine receptor 3 OXTR - oxytocin receptor
GO:0062023	collagen-containing extracellular matrix	6.13E-06	1.45E-03	1.9	A1BG - alpha-1-b glycoprotein S100A4 - s100 calcium binding protein a4 S100A6 - s100 calcium binding protein a6 BGN - biglycan EFEMP1 - egf containing fibulin-like extracellular matrix protein 1 MDK - midkine (neurite growth-promoting factor 2) AEBP1 - ae binding protein 1 GPC6 - glypican 6 GDF10 - growth differentiation factor 10 COL21A1 - collagen, type xxi, alpha 1 COL1A2 - collagen, type i, alpha 2 RTBDN - retbindin EFEMP2 - egf containing fibulin-like extracellular matrix protein 2 ANGPTL4 - angiopoietin-like 4 CALR - calreticulin FIBCD1 - fibrinogen c domain containing 1 TGFB1 - transforming growth factor, beta-induced, 68kda APOE - apolipoprotein e HSP90B1 - heat shock protein 90kda beta (grp94), member 1

					FGFBP3 - fibroblast growth factor binding protein 3 LAMB1 - laminin, beta 1 CD151 - cd151 molecule (raph blood group) LAMB2 - laminin, beta 2 (laminin s) COL10A1 - collagen, type x, alpha 1 LAMA1 - laminin, alpha 1 COL16A1 - collagen, type xvi, alpha 1 CCDC80 - coiled-coil domain containing 80 VCAN - versican MEGF9 - multiple egf-like-domains 9 GPC5 - glypican 5 COL23A1 - collagen, type xxiii, alpha 1 TIMP1 - timp metalloproteinase inhibitor 1 TIMP2 - timp metalloproteinase inhibitor 2 TIMP3 - timp metalloproteinase inhibitor 3 C1QA - complement component 1, q subcomponent, a chain SOD3 - superoxide dismutase 3, extracellular C1QB - complement component 1, q subcomponent, b chain C1QC - complement component 1, q subcomponent, c chain CBLN1 - cerebellin 1 precursor LGALS3 - lectin, galactoside-binding, soluble, 3 LTBP4 - latent transforming growth factor beta binding protein 4 IGFBP7 - insulin-like growth factor binding protein 7 TMEFF2 - transmembrane protein with egf-like and two follistatin-like domains 2 NTN1 - netrin 1 F12 - coagulation factor xii (hageman factor) ADAMTS8 - adam metalloproteinase with thrombospondin type 1 motif, 8 CTSH - cathepsin h
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					SPARC - secreted protein, acidic, cysteine-rich (osteonectin) PTN - pleiotrophin ANG - angiogenin, ribonuclease, rnase a family, 5 ANGPT1 - angiopoietin 1 ANGPTL6 - angiopoietin-like 6 CLEC14A - c-type lectin domain family 14, member a NDP - norrie disease (pseudoglioma) COCH - cochlin ADAMTS9 - adam metalloproteinase with thrombospondin type 1 motif, 9 LEPREL1 - leprecan-like 1 FN1 - fibronectin 1 FREM3 - fras1 related extracellular matrix 3
GO:0005576	extracellular region	1.06E-05	2.23E-03	1.43	A1BG - alpha-1-b glycoprotein S100A4 - s100 calcium binding protein a4 S100A6 - s100 calcium binding protein a6 MANF - mesencephalic astrocyte-derived neurotrophic factor HGF - hepatocyte growth factor (hepapoietin a; scatter factor) BGN - biglycan LRP6 - low density lipoprotein receptor-related protein 6 EFEMP1 - egf containing fibulin-like extracellular matrix protein 1 RELN - reelin IL33 - interleukin 33 CYB5D2 - cytochrome b5 domain containing 2 FTH1 - ferritin, heavy polypeptide 1 LSAMP - limbic system-associated membrane protein PA2G4 - proliferation-associated 2g4, 38kda S100A13 - s100 calcium binding protein a13 PAMR1 - peptidase domain containing associated with muscle regeneration 1

					KLK10 - kallikrein-related peptidase 10 EMID1 - emi domain containing 1 PRSS35 - protease, serine, 35 C4orf48 - chromosome 4 open reading frame 48 CD163 - cd163 molecule CHST9 - carbohydrate (n-acetylgalactosamine 4-0) sulfotransferase 9 FTL - ferritin, light polypeptide LOXL3 - lysyl oxidase-like 3 SERPINB2 - serpin peptidase inhibitor, clade b (ovalbumin), member 2 FUCA1 - fucosidase, alpha-l- 1, tissue COL1A2 - collagen, type i, alpha 2 LY6H - lymphocyte antigen 6 complex, locus h SCUBE2 - signal peptide, cub domain, egf-like 2 EFEMP2 - egf containing fibulin-like extracellular matrix protein 2 EDN1 - endothelin 1 DPCD - deleted in primary ciliary dyskinesia homolog (mouse) FUCA2 - fucosidase, alpha-l- 2, plasma ANGPTL4 - angiopoietin-like 4 PLTP - phospholipid transfer protein ADAM28 - adam metallopeptidase domain 28 FSTL5 - follistatin-like 5 PRDX4 - peroxiredoxin 4 WNT7B - wntless-type mmtv integration site family, member 7b WNT10B - wntless-type mmtv integration site family, member 10b PSMB1 - proteasome (prosome, macropain) subunit, beta type, 1 APOE - apolipoprotein e ADM5 - adrenomedullin 5 (putative) HSP90B1 - heat shock protein 90kda beta (grp94), member 1
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					APRT - adenine phosphoribosyltransferase FGFBP3 - fibroblast growth factor binding protein 3 C1QL1 - complement component 1, q subcomponent-like 1 COL10A1 - collagen, type x, alpha 1 AQP4 - aquaporin 4 LAMA1 - laminin, alpha 1 LUZP2 - leucine zipper protein 2 COL16A1 - collagen, type xvi, alpha 1 IL17RB - interleukin 17 receptor b GPC5 - glypican 5 CDH8 - cadherin 8, type 2 SCGN - secretagogin, ef-hand calcium binding protein IGF1 - insulin-like growth factor 1 (somatomedin c) C1QA - complement component 1, q subcomponent, a chain SOD3 - superoxide dismutase 3, extracellular VWCE - von willebrand factor c and egf domains PCSK5 - proprotein convertase subtilisin/kexin type 5 C1QB - complement component 1, q subcomponent, b chain C1QC - complement component 1, q subcomponent, c chain C1S - complement component 1, s subcomponent C3 - complement component 3 LTBP4 - latent transforming growth factor beta binding protein 4 IGFBP7 - insulin-like growth factor binding protein 7 WNT4 - wingless-type mmtv integration site family, member 4 PON2 - paraoxonase 2 HNRNPC - heterogeneous nuclear ribonucleoprotein c (c1/c2) APOM - apolipoprotein m NIT2 - nitrilase family, member 2
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					GALNT2 - udp-n-acetyl-alpha-d-galactosamine:polypeptide n-acetylgalactosaminyltransferase 2 (galnac-t2) NTN1 - netrin 1 PLEKHO2 - pleckstrin homology domain containing, family o member 2 SPARC - secreted protein, acidic, cysteine-rich (osteonectin) BRPF3 - bromodomain and phd finger containing, 3 PTN - pleiotrophin C17orf67 - chromosome 17 open reading frame 67 CRIM1 - cysteine rich transmembrane bmp regulator 1 (chordin-like) PDGFRL - platelet-derived growth factor receptor-like QSOX1 - quiescin q6 sulfhydryl oxidase 1 CFD - complement factor d (adipsin) RSPO3 - r-spondin 3 PDGFC - platelet derived growth factor c C1QL3 - complement component 1, q subcomponent-like 3 IL4I1 - interleukin 4 induced 1 TTN - titin CXCL2 - chemokine (c-x-c motif) ligand 2 GRP - gastrin-releasing peptide FN1 - fibronectin 1 PINLYP - phospholipase a2 inhibitor and ly6/plaur domain containing FOLR2 - folate receptor 2 (fetal) TEK - tek tyrosine kinase, endothelial CREG1 - cellular repressor of ela-stimulated genes 1 PTPRZ1 - protein tyrosine phosphatase, receptor-type, z polypeptide 1 TXN - thioredoxin MDK - midkine (neurite growth-promoting factor 2) CHID1 - chitinase domain containing 1
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					AEBP1 - ae binding protein 1 PYCARD - pyd and card domain containing GSTP1 - glutathione s-transferase pi 1 TNFSF13B - tumor necrosis factor (ligand) superfamily, member 13b SFTPD - surfactant protein d TUBB4B - tubulin, beta 4b class ivb CRB1 - crumbs homolog 1 (drosophila) COLEC11 - collectin sub-family member 11 HEBP1 - heme binding protein 1 LYPD1 - ly6/plaur domain containing 1 AGA - aspartylglucosaminidase COL21A1 - collagen, type xxi, alpha 1 ARPC5 - actin related protein 2/3 complex, subunit 5, 16kda GFER - growth factor, augmenter of liver regeneration CALR - calreticulin CALU - calumenin TG - thyroglobulin PYGL - phosphorylase, glycogen, liver TGFBI - transforming growth factor, beta-induced, 68kda GHR - growth hormone receptor IL13RA2 - interleukin 13 receptor, alpha 2 DNAH5 - dynein, axonemal, heavy chain 5 LAMB1 - laminin, beta 1 LAMB2 - laminin, beta 2 (laminin s) NDNF - neuron-derived neurotrophic factor CASP1 - caspase 1, apoptosis-related cysteine peptidase VCAN - versican NCAN - neurocan
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					GMFG - glia maturation factor, gamma MDGA1 - mam domain containing glycosylphosphatidylinositol anchor 1 INHBB - inhibin, beta b CAT - catalase CST3 - cystatin c TIMP1 - timp metalloproteinase inhibitor 1 TIMP2 - timp metalloproteinase inhibitor 2 HSPA6 - heat shock 70kda protein 6 (hsp70b') TIMP3 - timp metalloproteinase inhibitor 3 PRKCD - protein kinase c, delta HSP90AA1 - heat shock protein 90kda alpha (cytosolic), class a member 1 MIF - macrophage migration inhibitory factor (glycosylation-inhibiting factor) LFNG - lfng o-fucosylpeptide 3-beta-n-acetylglucosaminyltransferase CBLN1 - cerebellin 1 precursor LGALS3 - lectin, galactoside-binding, soluble, 3 ALPL - alkaline phosphatase, liver/bone/kidney PLA1A - phospholipase a1 member a KLK5 - kallikrein-related peptidase 5 VSTM2L - v-set and transmembrane domain containing 2 like TNFRSF11B - tumor necrosis factor receptor superfamily, member 11b BCAN - brevican HMHA1 - histocompatibility (minor) ha-1 CCL28 - chemokine (c-c motif) ligand 28 F12 - coagulation factor xii (hageman factor) CTSH - cathepsin h VCP - valosin containing protein DHRSX - dehydrogenase/reductase (sdr family) x-linked ANG - angiogenin, ribonuclease, rnase a family, 5
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					CANT1 - calcium activated nucleotidase 1 ANGPT1 - angiopoietin 1 CAP1 - cap, adenylate cyclase-associated protein 1 (yeast) CD2 - cd2 molecule GAL - galanin/gmap prepropeptide VAT1 - vesicle amine transport protein 1 homolog (t. californica) PROS1 - protein s (alpha) MNDA - myeloid cell nuclear differentiation antigen PLAC9 - placenta-specific 9 CD6 - cd6 molecule RBP4 - retinol binding protein 4, plasma CD8A - cd8a molecule
GO:0016021	integral component of membrane	1.69E-05	3.20E-03	1.21	STT3A - stt3a, subunit of the oligosaccharyltransferase complex (catalytic) SCN3B - sodium channel, voltage-gated, type iii, beta subunit SLC29A4 - solute carrier family 29 (equilibrative nucleoside transporter), member 4 P2RY1 - purinergic receptor p2y, g-protein coupled, 1 MCUR1 - mitochondrial calcium uniporter regulator 1 CHRNA6 - cholinergic receptor, nicotinic, alpha 6 (neuronal) ITPR2 - inositol 1,4,5-trisphosphate receptor, type 2 TMEM200A - transmembrane protein 200a ATF6 - activating transcription factor 6 CNR1 - cannabinoid receptor 1 (brain) ABHD1 - abhydrolase domain containing 1 CREB3L3 - camp responsive element binding protein 3-like 3 MPZL1 - myelin protein zero-like 1 KCNA5 - potassium voltage-gated channel, shaker-related subfamily, member 5 OSBPL8 - oxysterol binding protein-like 8

					PSENEN - presenilin enhancer 2 homolog (c. elegans) FZD2 - frizzled family receptor 2 KCNG1 - potassium voltage-gated channel, subfamily g, member 1 IGSF6 - immunoglobulin superfamily, member 6 CYP4V2 - cytochrome p450, family 4, subfamily v, polypeptide 2 SCN9A - sodium channel, voltage-gated, type ix, alpha subunit MPV17L2 - mpv17 mitochondrial membrane protein-like 2 VASN - vasorin CTXN3 - cortexin 3 COMT - catechol-o-methyltransferase GPR88 - g protein-coupled receptor 88 SLC7A7 - solute carrier family 7 (amino acid transporter light chain, y+l system), member 7 GABRA3 - gamma-aminobutyric acid (gaba) a receptor, alpha 3 TMEM176B - transmembrane protein 176b GABRA5 - gamma-aminobutyric acid (gaba) a receptor, alpha 5 RTP4 - receptor (chemosensory) transporter protein 4 KCNK2 - potassium channel, subfamily k, member 2 GABRB1 - gamma-aminobutyric acid (gaba) a receptor, beta 1 RNF175 - ring finger protein 175 KCNN3 - potassium intermediate/small conductance calcium-activated channel, subfamily n, member 3 PCSK5 - proprotein convertase subtilisin/kexin type 5 ACVR2A - activin a receptor, type iia XYLT1 - xylosyltransferase i ADCY2 - adenylate cyclase 2 (brain) HSD3B7 - hydroxy-delta-5-steroid dehydrogenase, 3 beta- and steroid delta-isomerase 7
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					GALNT2 - udp-n-acetyl-alpha-d-galactosamine:polypeptide n-acetylgalactosaminyltransferase 2 (galnac-t2) ADCY7 - adenylate cyclase 7 TMTC3 - transmembrane and tetratricopeptide repeat containing 3 DNAJC1 - dnaj (hsp40) homolog, subfamily c, member 1 PTCHD1 - patched domain containing 1 SEMA4A - sema domain, immunoglobulin domain (ig), transmembrane domain (tm) and short cytoplasmic domain, (semaphorin) 4a PDGFRA - platelet-derived growth factor receptor, alpha polypeptide HERPUD2 - herpud family member 2 AMIGO2 - adhesion molecule with ig-like domain 2 PTPLAD2 - protein tyrosine phosphatase-like a domain containing 2 SELPLG - selectin p ligand ADORA2B - adenosine a2b receptor TMEM215 - transmembrane protein 215 CLEC14A - c-type lectin domain family 14, member a TOMM5 - translocase of outer mitochondrial membrane 5 homolog (yeast) TMEM234 - transmembrane protein 234 AIFM2 - apoptosis-inducing factor, mitochondrion-associated, 2 SMCR7L - smith-magenis syndrome chromosome region, candidate 7-like LRRC3B - leucine rich repeat containing 3b PECAM1 - platelet/endothelial cell adhesion molecule 1 STXBP6 - syntaxin binding protein 6 (amisyn) ADRA2C - adrenoceptor alpha 2c NUS1 - nuclear undecaprenyl pyrophosphate synthase 1 homolog (s. cerevisiae) PNPLA3 - patatin-like phospholipase domain containing 3 ADRB2 - adrenoceptor beta 2, surface CHPF2 - chondroitin polymerizing factor 2
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					TMEM208 - transmembrane protein 208 GCNT1 - glucosaminyl (n-acetyl) transferase 1, core 2 TMEM87B - transmembrane protein 87b GRIN3A - glutamate receptor, ionotropic, n-methyl-d-aspartate 3a SUSD1 - sushi domain containing 1 FIBCD1 - fibrinogen c domain containing 1 GGTA1P - glycoprotein, alpha-galactosyltransferase 1 pseudogene GHR - growth hormone receptor PTPLA - protein tyrosine phosphatase-like (proline instead of catalytic arginine), member a GJA1 - gap junction protein, alpha 1, 43kda TLCD2 - tlc domain containing 2 SDK2 - sidekick cell adhesion molecule 2 CNIH2 - cornichon homolog 2 (drosophila) ST6GAL1 - st6 beta-galactosamide alpha-2,6-sialyltransferase 1 GXYLT2 - glucoside xylosyltransferase 2 SCARA5 - scavenger receptor class a, member 5 (putative) LRRN2 - leucine rich repeat neuronal 2 ALOX5AP - arachidonate 5-lipoxygenase-activating protein TMEM256 - transmembrane protein 256 SLC1A3 - solute carrier family 1 (glial high affinity glutamate transporter), member 3 SLC4A3 - solute carrier family 4 (anion exchanger), member 3 SLC1A4 - solute carrier family 1 (glutamate/neutral amino acid transporter), member 4 GLG1 - golgi glycoprotein 1 LFNG - lfng o-fucosylpeptide 3-beta-n-acetylglucosaminyltransferase MXRA8 - matrix-remodelling associated 8
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					GPNMB - glycoprotein (transmembrane) nmb NKAIN3 - na⁺/k⁺ transporting atpase interacting 3 SLC30A1 - solute carrier family 30 (zinc transporter), member 1 MERTK - c-mer proto-oncogene tyrosine kinase SLC3A2 - solute carrier family 3 (amino acid transporter heavy chain), member 2 TMPRSS5 - transmembrane protease, serine 5 CRB2 - crumbs homolog 2 (drosophila) SLC2A10 - solute carrier family 2 (facilitated glucose transporter), member 10 TMEM141 - transmembrane protein 141 C16orf58 - chromosome 16 open reading frame 58 MARC1 - mitochondrial amidoxime reducing component 1 LAPTM5 - lysosomal protein transmembrane 5 MLC1 - megalencephalic leukoencephalopathy with subcortical cysts 1 CHST7 - carbohydrate (n-acetylglucosamine 6-o) sulfotransferase 7 SLC7A2 - solute carrier family 7 (cationic amino acid transporter, y⁺ system), member 2 FAM171B - family with sequence similarity 171, member b SLC7A4 - solute carrier family 7, member 4 SLC8A3 - solute carrier family 8 (sodium/calcium exchanger), member 3 FNDC3B - fibronectin type iii domain containing 3b CX3CR1 - chemokine (c-x3-c motif) receptor 1 S1PR2 - sphingosine-1-phosphate receptor 2 VAT1 - vesicle amine transport protein 1 homolog (t. californica) NPDC1 - neural proliferation, differentiation and control, 1 CYBB - cytochrome b-245, beta polypeptide SLC35F2 - solute carrier family 35, member f2 CXCR4 - chemokine (c-x-c motif) receptor 4 FREM3 - fras1 related extracellular matrix 3
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					SLC15A2 - solute carrier family 15 (oligopeptide transporter), member 2 CD83 - cd83 molecule SLC16A2 - solute carrier family 16, member 2 (thyroid hormone transporter) LRP4 - low density lipoprotein receptor-related protein 4 TMEM9B - tmem9 domain family, member b LRP6 - low density lipoprotein receptor-related protein 6 IL17RD - interleukin 17 receptor d SLC19A1 - solute carrier family 19 (folate transporter), member 1 COMTD1 - catechol-o-methyltransferase domain containing 1 KIAA1024 - kiaa1024 FXYP1 - fxyd domain containing ion transport regulator 1 TMEM196 - transmembrane protein 196 SLN - sarcolipin CD163 - cd163 molecule PLP2 - proteolipid protein 2 (colonic epithelium-enriched) GLP2R - glucagon-like peptide 2 receptor EMC7 - er membrane protein complex subunit 7 DNAJC14 - dnaj (hsp40) homolog, subfamily c, member 14 SAMD8 - sterile alpha motif domain containing 8 PCDH20 - protocadherin 20 SLC40A1 - solute carrier family 40 (iron-regulated transporter), member 1 TM9SF3 - transmembrane 9 superfamily member 3 SMO - smoothened, frizzled family receptor AGPAT1 - 1-acylglycerol-3-phosphate o-acyltransferase 1 SPTLC1 - serine palmitoyltransferase, long chain base subunit 1 FAS - fas cell surface death receptor GPR17 - g protein-coupled receptor 17 LST1 - leukocyte specific transcript 1
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					DAD1 - defender against cell death 1 AQP4 - aquaporin 4 RABAC1 - rab acceptor 1 (prenylated) ABCC6 - atp-binding cassette, sub-family c (cftr/mrp), member 6 GPR34 - g protein-coupled receptor 34 MLNR - motilin receptor TUSC3 - tumor suppressor candidate 3 GLRA3 - glycine receptor, alpha 3 MAN1A1 - mannosidase, alpha, class 1a, member 1 GDPD2 - glycerophosphodiester phosphodiesterase domain containing 2 MAOB - monoamine oxidase b ERLIN1 - er lipid raft associated 1 FADS2 - fatty acid desaturase 2 ATP6V0A4 - atpase, h ⁺ transporting, lysosomal v0 subunit a4 GRID2 - glutamate receptor, ionotropic, delta 2 GIMAP1 - gtpase, imap family member 1 RNF43 - ring finger protein 43 SPPL3 - signal peptide peptidase like 3 YKT6 - ykt6 v-snare homolog (s. cerevisiae) CTXN1 - cortexin 1 DLK2 - delta-like 2 homolog (drosophila) DHCR7 - 7-dehydrocholesterol reductase ACKR3 - atypical chemokine receptor 3 KCNG3 - potassium voltage-gated channel, subfamily g, member 3 GPR68 - g protein-coupled receptor 68 CD226 - cd226 molecule TMEM108 - transmembrane protein 108 LMAN2L - lectin, mannose-binding 2-like
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					SERP1 - stress-associated endoplasmic reticulum protein 1 TNFSF13B - tumor necrosis factor (ligand) superfamily, member 13b DIO2 - deiodinase, iodothyronine, type ii IFI27L1 - interferon, alpha-inducible protein 27-like 1 B3GNT2 - udp-glcnaac:betagal beta-1,3-n-acetylglucosaminyltransferase 2 CRB1 - crumbs homolog 1 (drosophila) SSR2 - signal sequence receptor, beta (translocon-associated protein beta) ATP2B4 - atpase, ca⁺⁺ transporting, plasma membrane 4 SSR4 - signal sequence receptor, delta PLSCR4 - phospholipid scramblase 4 TSPAN18 - tetraspanin 18 PCDH17 - protocadherin 17 CERS1 - ceramide synthase 1 SSTR1 - somatostatin receptor 1 HRASLS - hras-like suppressor DERL2 - derlin 2 PVRIG - poliovirus receptor related immunoglobulin domain containing PTGES - prostaglandin e synthase MGST1 - microsomal glutathione s-transferase 1 PGAM5 - phosphoglycerate mutase family member 5 CD248 - cd248 molecule, endosialin CHL1 - cell adhesion molecule 11-like CD99 - cd99 molecule TMEM159 - transmembrane protein 159 KCNMB4 - potassium large conductance calcium-activated channel, subfamily m, beta member 4 SLC44A2 - solute carrier family 44 (choline transporter), member 2 MARCH1 - membrane-associated ring finger (c3hc4) 1, e3 ubiquitin protein ligase
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					ATL1 - atlastin gtpase 1 TMEM219 - transmembrane protein 219 GJB6 - gap junction protein, beta 6, 30kda CANT1 - calcium activated nucleotidase 1 SEZ6L - seizure related 6 homolog (mouse)-like FZD1 - frizzled family receptor 1 SIDT2 - sid1 transmembrane family, member 2 FKRP - fukutin related protein SYT4 - synaptotagmin iv FZD8 - frizzled family receptor 8 FZD9 - frizzled family receptor 9 TMC8 - transmembrane channel-like 8 KIAA1244 - kiaa1244 LCTL - lactase-like APH1B - aph1b gamma secretase subunit MRC1 - mannose receptor, c type 1 VSIG10L - v-set and immunoglobulin domain containing 10 like TMEM51 - transmembrane protein 51 CHST9 - carbohydrate (n-acetylgalactosamine 4-0) sulfotransferase 9 S1PR1 - sphingosine-1-phosphate receptor 1 PGRMC1 - progesterone receptor membrane component 1 CYP46A1 - cytochrome p450, family 46, subfamily a, polypeptide 1 TMEM43 - transmembrane protein 43 JPH3 - junctophilin 3 ADAM28 - adam metallopeptidase domain 28 TTYH1 - tweety homolog 1 (drosophila) EDNRB - endothelin receptor type b HCST - hematopoietic cell signal transducer
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					CLDND2 - claudin domain containing 2 ALG14 - alg14, udp-n-acetylglucosaminyltransferase subunit TMEM47 - transmembrane protein 47 TBXA2R - thromboxane a2 receptor NPFFR2 - neuropeptide ff receptor 2 MR1 - major histocompatibility complex, class i-related GALNT16 - udp-n-acetyl-alpha-d-galactosamine:polypeptide n-acetylgalactosaminyltransferase 16 MEGF9 - multiple egf-like-domains 9 TRAM2 - translocation associated membrane protein 2 COL23A1 - collagen, type xxiii, alpha 1 MAN1A2 - mannosidase, alpha, class 1a, member 2 PTCH1 - patched 1 SLC7A11 - solute carrier family 7 (anionic amino acid transporter light chain, xc-system), member 11 PTGER3 - prostaglandin e receptor 3 (subtype ep3) PTGER4 - prostaglandin e receptor 4 (subtype ep4) MFSD12 - major facilitator superfamily domain containing 12 NDUFA11 - nadh dehydrogenase (ubiquinone) 1 alpha subcomplex, 11, 14.7kda TMEFF2 - transmembrane protein with egf-like and two follistatin-like domains 2 RNF150 - ring finger protein 150 MYADM - myeloid-associated differentiation marker STX12 - syntaxin 12 TMEM17 - transmembrane protein 17 ZNF219 - zinc finger protein 219 TMEM258 - transmembrane protein 258 KDELRL1 - kdel (lys-asp-glu-leu) endoplasmic reticulum protein retention receptor 1
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					CADM1 - cell adhesion molecule 1 ARMC10 - armadillo repeat containing 10 CRIM1 - cysteine rich transmembrane bmp regulator 1 (chordin-like) EMP1 - epithelial membrane protein 1 QSOX1 - quiescin q6 sulfhydryl oxidase 1 EMP3 - epithelial membrane protein 3 TPST1 - tyrosylprotein sulfotransferase 1 B3GALT6 - udp-gal:betagal beta 1,3-galactosyltransferase polypeptide 6 CLEC9A - c-type lectin domain family 9, member a TMTC1 - transmembrane and tetratricopeptide repeat containing 1 NYNRIN - nyn domain and retroviral integrase containing PTPRA - protein tyrosine phosphatase, receptor type, a TMEM120A - transmembrane protein 120a MLEC - malectin SLC44A3 - solute carrier family 44, member 3 PTPRF - protein tyrosine phosphatase, receptor type, f PTPRG - protein tyrosine phosphatase, receptor type, g PIRT - phosphoinositide-interacting regulator of transient receptor potential channels UQCR11 - ubiquinol-cytochrome c reductase, complex iii subunit xi MANEAL - mannosidase, endo-alpha-like TEK - tek tyrosine kinase, endothelial BET1L - bet1 golgi vesicular membrane trafficking protein-like PTPRZ1 - protein tyrosine phosphatase, receptor-type, z polypeptide 1 GOLM1 - golgi membrane protein 1 SLC52A2 - solute carrier family 52 (riboflavin transporter), member 2 SLC27A5 - solute carrier family 27 (fatty acid transporter), member 5 SLC27A3 - solute carrier family 27 (fatty acid transporter), member 3
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					SLC27A2 - solute carrier family 27 (fatty acid transporter), member 2 TAPT1 - transmembrane anterior posterior transformation 1 ERBB2 - v-erb-b2 avian erythroblastic leukemia viral oncogene homolog 2 MTCH1 - mitochondrial carrier 1 CALR - calreticulin GCNT4 - glucosaminyl (n-acetyl) transferase 4, core 2 TMED1 - transmembrane emp24 protein transport domain containing 1 CANX - calnexin TANGO6 - transport and golgi organization 6 homolog (drosophila) CHST1 - carbohydrate (keratan sulfate gal-6) sulfotransferase 1 TMEM100 - transmembrane protein 100 IFI27L2 - interferon, alpha-inducible protein 27-like 2 THBD - thrombomodulin TIMM50 - translocase of inner mitochondrial membrane 50 homolog (s. cerevisiae) GOLT1A - golgi transport 1a TMEM53 - transmembrane protein 53 HEPH - hephaestin MS4A4A - membrane-spanning 4-domains, subfamily a, member 4a CAV2 - caveolin 2 DEGS1 - delta(4)-desaturase, sphingolipid 1 KIRREL2 - kin of irre like 2 (drosophila) LRRN1 - leucine rich repeat neuronal 1 SLC29A3 - solute carrier family 29 (equilibrative nucleoside transporter), member 3 TMEM115 - transmembrane protein 115 NKAIN4 - na⁺/k⁺ transporting atpase interacting 4 TLR2 - toll-like receptor 2 TLR3 - toll-like receptor 3
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					TMEM173 - transmembrane protein 173 TLR4 - toll-like receptor 4 RER1 - rer1 retention in endoplasmic reticulum 1 homolog (s. cerevisiae) DRAM1 - dna-damage regulated autophagy modulator 1 TM7SF2 - transmembrane 7 superfamily member 2 HTR1A - 5-hydroxytryptamine (serotonin) receptor 1a, g protein-coupled HTR7 - 5-hydroxytryptamine (serotonin) receptor 7, adenylate cyclase-coupled CD2 - cd2 molecule ACSL4 - acyl-coa synthetase long-chain family member 4 CD6 - cd6 molecule STYK1 - serine/threonine/tyrosine kinase 1 CD8A - cd8a molecule NDUFA3 - nadh dehydrogenase (ubiquinone) 1 alpha subcomplex, 3, 9kda ICAM3 - intercellular adhesion molecule 3 TSPAN33 - tetraspanin 33 TMEM176A - transmembrane protein 176a PLB1 - phospholipase b1 PRPH2 - peripherin 2 (retinal degeneration, slow) LGR4 - leucine-rich repeat containing g protein-coupled receptor 4 NDUFB1 - nadh dehydrogenase (ubiquinone) 1 beta subcomplex, 1, 7kda TMEM186 - transmembrane protein 186 MILR1 - mast cell immunoglobulin-like receptor 1 CD33 - cd33 molecule FCGR1B - fc fragment of igg, high affinity ib, receptor (cd64) TMEM164 - transmembrane protein 164 P2RY14 - purinergic receptor p2y, g-protein coupled, 14 CD38 - cd38 molecule TMEM158 - transmembrane protein 158 (gene/pseudogene)
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					SLC4A4 - solute carrier family 4 (sodium bicarbonate cotransporter), member 4 MBOAT2 - membrane bound o-acyltransferase domain containing 2 VAMP8 - vesicle-associated membrane protein 8 TMEM117 - transmembrane protein 117 CD58 - cd58 molecule CD63 - cd63 molecule ATL3 - atlastin gtpase 3 TMEM18 - transmembrane protein 18 SLC26A11 - solute carrier family 26 (anion exchanger), member 11 CD81 - cd81 molecule CD151 - cd151 molecule (raph blood group) TMEM136 - transmembrane protein 136 SLC30A10 - solute carrier family 30, member 10 B4GALT3 - udp-gal:betaglcnac beta 1,4- galactosyltransferase, polypeptide 3 IFNAR1 - interferon (alpha, beta and omega) receptor 1 B4GALT2 - udp-gal:betaglcnac beta 1,4- galactosyltransferase, polypeptide 2 IL17RB - interleukin 17 receptor b B3GALT4 - udp-gal:betaglcnac beta 1,3-galactosyltransferase, polypeptide 4 B3GALNT1 - beta-1,3-n-acetylgalactosaminyltransferase 1 (globoside blood group) GPC5 - glypican 5 CDH8 - cadherin 8, type 2 SERTM1 - serine-rich and transmembrane domain containing 1 CDH11 - cadherin 11, type 2, ob-cadherin (osteoblast) MS4A15 - membrane-spanning 4-domains, subfamily a, member 15 SYT10 - synaptotagmin x DHRS7B - dehydrogenase/reductase (sdr family) member 7b CMTM8 - cklf-like marvel transmembrane domain containing 8
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				MS4A7 - membrane-spanning 4-domains, subfamily a, member 7 SLC25A33 - solute carrier family 25 (pyrimidine nucleotide carrier), member 33 PRAF2 - pral domain family, member 2 RNF139 - ring finger protein 139 HEPACAM - hepatic and glial cell adhesion molecule TNFRSF14 - tumor necrosis factor receptor superfamily, member 14 LRP10 - low density lipoprotein receptor-related protein 10 FAM174B - family with sequence similarity 174, member b HRH3 - histamine receptor h3 PXMP4 - peroxisomal membrane protein 4, 24kda ROBO1 - roundabout, axon guidance receptor, homolog 1 (drosophila) FMO2 - flavin containing monooxygenase 2 (non-functional) FMO5 - flavin containing monooxygenase 5 MARCH8 - membrane-associated ring finger (c3hc4) 8, e3 ubiquitin protein ligase TNFRSF11A - tumor necrosis factor receptor superfamily, member 11a, nfkb activator ABCB6 - atp-binding cassette, sub-family b (mdr/tap), member 6 SLC25A48 - solute carrier family 25, member 48 TMEM8A - transmembrane protein 8a MRAP2 - melanocortin 2 receptor accessory protein 2 CMTM7 - cklf-like marvel transmembrane domain containing 7 RTP1 - receptor (chemosensory) transporter protein 1 PIGV - phosphatidylinositol glycan anchor biosynthesis, class v NPHS1 - nephrosis 1, congenital, finnish type (nephrin) TMEM238 - transmembrane protein 238 SHISA9 - shisa family member 9 SYNPR - synaptoporin SLC39A12 - solute carrier family 39 (zinc transporter), member 12
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					TMEM101 - transmembrane protein 101 BTNL9 - butyrophilin-like 9 SIGIRR - single immunoglobulin and toll-interleukin 1 receptor (tir) domain IL3RA - interleukin 3 receptor, alpha (low affinity) VSIG4 - v-set and immunoglobulin domain containing 4 CYB5R1 - cytochrome b5 reductase 1 TYROBP - tyro protein tyrosine kinase binding protein NPY1R - neuropeptide y receptor y1 NPY5R - neuropeptide y receptor y5 NRP1 - neuropilin 1 TSPAN2 - tetraspanin 2 CHST14 - carbohydrate (n-acetylgalactosamine 4-0) sulfotransferase 14 SLC2A12 - solute carrier family 2 (facilitated glucose transporter), member 12 CD84 - cd84 molecule SMIM4 - small integral membrane protein 4 OST4 - oligosaccharyltransferase 4 homolog (s. cerevisiae) IL12RB2 - interleukin 12 receptor, beta 2 NKAIN2 - na+/k+ transporting atpase interacting 2 IL13RA2 - interleukin 13 receptor, alpha 2 CCDC167 - coiled-coil domain containing 167 TMEM54 - transmembrane protein 54 DDR2 - discoidin domain receptor tyrosine kinase 2 TMEM150C - transmembrane protein 150c TMEM200C - transmembrane protein 200c NTSR1 - neurotensin receptor 1 (high affinity) TENM3 - teneurin transmembrane protein 3 GALNT7 - udp-n-acetyl-alpha-d-galactosamine:polypeptide n-acetylgalactosaminyltransferase 7 (galnac-t7)
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					CCDC90B - coiled-coil domain containing 90b GPR143 - g protein-coupled receptor 143 WLS - wntless homolog (drosophila) LRP1B - low density lipoprotein receptor-related protein 1b DOLK - dolichol kinase PLXNC1 - plexin c1 DHRS9 - dehydrogenase/reductase (sdr family) member 9 FXD5 - fxd domain containing ion transport regulator 5 OPRM1 - opioid receptor, mu 1 CACNA1H - calcium channel, voltage-dependent, t type, alpha 1h subunit SLITRK2 - slit and ntrk-like family, member 2 SLCO1C1 - solute carrier organic anion transporter family, member 1c1 PGAP1 - post-gpi attachment to proteins 1 CCR1 - chemokine (c-c motif) receptor 1 ROR1 - ryanodine receptor 1 (skeletal) CALCR - calcitonin receptor-like CCR5 - chemokine (c-c motif) receptor 5 (gene/pseudogene) ROR3 - ryanodine receptor 3 OXTR - oxytocin receptor
GO:0031982	vesicle	5.57E-05	9.58E-03	1.24	A1BG - alpha-1-b glycoprotein S100A4 - s100 calcium binding protein a4 SH3GLB1 - sh3-domain grb2-like endophilin b1 S100A6 - s100 calcium binding protein a6 RAB33B - rab33b, member ras oncogene family BGN - biglycan DDAH2 - dimethylarginine dimethylaminohydrolase 2 IL33 - interleukin 33 HIST2H2AC - histone cluster 2, h2ac

					HIST1H2BG - histone cluster 1, h2bg FTH1 - ferritin, heavy polypeptide 1 HIST1H2BL - histone cluster 1, h2bl APH1B - aph1b gamma secretase subunit PA2G4 - proliferation-associated 2g4, 38kda HIST1H2BM - histone cluster 1, h2bm HIST1H2BF - histone cluster 1, h2bf KLK10 - kallikrein-related peptidase 10 DDAH1 - dimethylarginine dimethylaminohydrolase 1 SELENBP1 - selenium binding protein 1 CDC42EP4 - cdc42 effector protein (rho gtpase binding) 4 HIST1H2BH - histone cluster 1, h2bh HIST1H2BI - histone cluster 1, h2bi HIST1H2BC - histone cluster 1, h2bc PRDX1 - peroxiredoxin 1 CNTN1 - contactin 1 FTL - ferritin, light polypeptide S1PR1 - sphingosine-1-phosphate receptor 1 BMP6 - bone morphogenetic protein 6 COL1A2 - collagen, type i, alpha 2 FUCA1 - fucosidase, alpha-l- 1, tissue EDN1 - endothelin 1 FUCA2 - fucosidase, alpha-l- 2, plasma WNT7B - wingless-type mmtv integration site family, member 7b CCT5 - chaperonin containing tcp1, subunit 5 (epsilon) PARK2 - parkinson protein 2, e3 ubiquitin protein ligase (parkin) RHOJ - ras homolog family member j PSMB1 - proteasome (prosome, macropain) subunit, beta type, 1
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					TBXA2R - thromboxane a2 receptor ACTA1 - actin, alpha 1, skeletal muscle PCBD1 - pterin-4 alpha-carbinolamine dehydratase/dimerization cofactor of hepatocyte nuclear factor 1 alpha VASN - vasorin ACTC1 - actin, alpha, cardiac muscle 1 COMT - catechol-o-methyltransferase ACTG1 - actin, gamma 1 ACTG2 - actin, gamma 2, smooth muscle, enteric PSME1 - proteasome (prosome, macropain) activator subunit 1 (pa28 alpha) MAN1A2 - mannosidase, alpha, class 1a, member 2 RGS19 - regulator of g-protein signaling 19 CHMP1A - charged multivesicular body protein 1a MSN - moesin PCSK5 - proprotein convertase subtilisin/kexin type 5 YWHAZ - tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, zeta polypeptide GNG2 - guanine nucleotide binding protein (g protein), gamma 2 BBOX1 - butyrobetaine (gamma), 2-oxoglutarate dioxygenase (gamma-butyrobetaine hydroxylase) 1 C3 - complement component 3 GBP4 - guanylate binding protein 4 MFSD12 - major facilitator superfamily domain containing 12 SUB1 - sub1 homolog (s. cerevisiae) WNT4 - wingless-type mmtv integration site family, member 4 STX12 - syntaxin 12 GALK1 - galactokinase 1 HNRNPC - heterogeneous nuclear ribonucleoprotein c (c1/c2)
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					MUM1L1 - melanoma associated antigen (mutated) 1-like 1 GNG12 - guanine nucleotide binding protein (g protein), gamma 12 TNIK - traf2 and nck interacting kinase KDELRL1 - kdel (lys-asp-glu-leu) endoplasmic reticulum protein retention receptor 1 KIF21B - kinesin family member 21b AP3M2 - adaptor-related protein complex 3, mu 2 subunit QSOX1 - quiescin q6 sulfhydryl oxidase 1 RAB3C - rab3c, member ras oncogene family MTM1 - myotubularin 1 CXXC4 - cxxc finger protein 4 PDGFC - platelet derived growth factor c GATM - glycine amidinotransferase (l-arginine:glycine amidinotransferase) PTPN13 - protein tyrosine phosphatase, non-receptor type 13 (apo-1/cd95 (fas)-associated phosphatase) CHMP4A - charged multivesicular body protein 4a PTPRA - protein tyrosine phosphatase, receptor type, a PHPT1 - phosphohistidine phosphatase 1 PECAM1 - platelet/endothelial cell adhesion molecule 1 PTPRF - protein tyrosine phosphatase, receptor type, f PTPRG - protein tyrosine phosphatase, receptor type, g RAB34 - rab34, member ras oncogene family PABPC1L - poly(a) binding protein, cytoplasmic 1-like ADRA2C - adrenoceptor alpha 2c ADIRF - adipogenesis regulatory factor ADRB2 - adrenoceptor beta 2, surface CACNA2D1 - calcium channel, voltage-dependent, alpha 2/delta subunit 1 RAB32 - rab32, member ras oncogene family
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					TXNDC16 - thioredoxin domain containing 16 NEURL1B - neuralized homolog 1b (drosophila) BET1L - bet1 golgi vesicular membrane trafficking protein-like AP2B1 - adaptor-related protein complex 2, beta 1 subunit AEBP1 - ae binding protein 1 CALB1 - calbindin 1, 28kda SFTPD - surfactant protein d TUBB4B - tubulin, beta 4b class ivb EPHX2 - epoxide hydrolase 2, cytoplasmic FAM213B - family with sequence similarity 213, member b SLC27A2 - solute carrier family 27 (fatty acid transporter), member 2 HPGD - hydroxyprostaglandin dehydrogenase 15-(nad) SGSH - n-sulfoglucosamine sulfohydrolase ERBB2 - v-erb-b2 avian erythroblastic leukemia viral oncogene homolog 2 S100A16 - s100 calcium binding protein a16 CALR - calreticulin CALU - calumenin PYGL - phosphorylase, glycogen, liver AHCY - adenosylhomocysteinase TMED1 - transmembrane emp24 protein transport domain containing 1 TGFBI - transforming growth factor, beta-induced, 68kda CANX - calnexin RAB35 - rab35, member ras oncogene family RAB3IL1 - rab3a interacting protein (rabin3)-like 1 LAMB1 - laminin, beta 1 SHMT2 - serine hydroxymethyltransferase 2 (mitochondrial) LAMB2 - laminin, beta 2 (laminin s) DENND6B - denn/madd domain containing 6b
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					GJA1 - gap junction protein, alpha 1, 43kda SPON2 - spondin 2, extracellular matrix protein RAB13 - rab13, member ras oncogene family RAB31 - rab31, member ras oncogene family RAB27B - rab27b, member ras oncogene family MOB1B - mob kinase activator 1b WDR48 - wd repeat domain 48 ALDH2 - aldehyde dehydrogenase 2 family (mitochondrial) SIPA1 - signal-induced proliferation-associated 1 SNX13 - sorting nexin 13 LCP1 - lymphocyte cytosolic protein 1 (l-plastin) CAT - catalase WDR54 - wd repeat domain 54 CST3 - cystatin c TIMP1 - timp metalloproteinase inhibitor 1 LDHA - lactate dehydrogenase a CAV2 - caveolin 2 HSPA6 - heat shock 70kda protein 6 (hsp70b') MYL6 - myosin, light chain 6, alkali, smooth muscle and non-muscle SLA - src-like-adaptor TMEM256 - transmembrane protein 256 SLC1A3 - solute carrier family 1 (glial high affinity glutamate transporter), member 3 HSPB1 - heat shock 27kda protein 1 RAN - ran, member ras oncogene family SLC1A4 - solute carrier family 1 (glutamate/neutral amino acid transporter), member 4 HSP90AA1 - heat shock protein 90kda alpha (cytosolic), class a member 1
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					GLG1 - golgi glycoprotein 1 LFNG - lfng o-fucosylpeptide 3-beta-n-acetylglucosaminyltransferase SERPINI2 - serpin peptidase inhibitor, clade i (pancpin), member 2 MXRA8 - matrix-remodelling associated 8 LGALS3 - lectin, galactoside-binding, soluble, 3 ALPL - alkaline phosphatase, liver/bone/kidney RAP2B - rap2b, member of ras oncogene family SLC3A2 - solute carrier family 3 (amino acid transporter heavy chain), member 2 KLK5 - kallikrein-related peptidase 5 ARL15 - adp-ribosylation factor-like 15 TLR3 - toll-like receptor 3 TMEM173 - transmembrane protein 173 TLR4 - toll-like receptor 4 CRB2 - crumbs homolog 2 (drosophila) RARS - arginyl-trna synthetase SNX11 - sorting nexin 11 GLUL - glutamate-ammonia ligase LAPTM5 - lysosomal protein transmembrane 5 CCL28 - chemokine (c-c motif) ligand 28 F12 - coagulation factor xii (hageman factor) CTSH - cathepsin h HIST1H2AH - histone cluster 1, h2ah PRSS23 - protease, serine, 23 MLC1 - megalencephalic leukoencephalopathy with subcortical cysts 1 ANG - angiogenin, ribonuclease, rnase a family, 5 ANGPT1 - angiopoietin 1 CAP1 - cap, adenylate cyclase-associated protein 1 (yeast) SAMD9L - sterile alpha motif domain containing 9-like
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					GNAQ - guanine nucleotide binding protein (g protein), q polypeptide VAT1 - vesicle amine transport protein 1 homolog (t. californica) ACSL4 - acyl-coa synthetase long-chain family member 4 FAH - fumarylacetoacetate hydrolase (fumarylacetoacetase) RBP4 - retinol binding protein 4, plasma SGSM2 - small g protein signaling modulator 2 GNB2 - guanine nucleotide binding protein (g protein), beta polypeptide 2 CXCR4 - chemokine (c-x-c motif) receptor 4 SCG2 - secretogranin ii GNG4 - guanine nucleotide binding protein (g protein), gamma 4 ICAM3 - intercellular adhesion molecule 3 SLC15A2 - solute carrier family 15 (oligopeptide transporter), member 2 GNG5 - guanine nucleotide binding protein (g protein), gamma 5 CIB1 - calcium and integrin binding 1 (calmyrin) EFEMP1 - egf containing fibulin-like extracellular matrix protein 1 AKR1C3 - aldo-keto reductase family 1, member c3 PTER - phosphotriesterase related LRP6 - low density lipoprotein receptor-related protein 6 PLCG2 - phospholipase c, gamma 2 (phosphatidylinositol-specific) LSP1 - lymphocyte-specific protein 1 PLN - phospholamban CD38 - cd38 molecule PTP4A3 - protein tyrosine phosphatase type iva, member 3 TRIM27 - tripartite motif containing 27 FAM129B - family with sequence similarity 129, member b ENKUR - enkurin, trpc channel interacting protein EFEMP2 - egf containing fibulin-like extracellular matrix protein 2 SLC4A4 - solute carrier family 4 (sodium bicarbonate cotransporter), member 4
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					UFC1 - ubiquitin-fold modifier conjugating enzyme 1 PRDX4 - peroxiredoxin 4 VAMP8 - vesicle-associated membrane protein 8 LYN - v-yes-1 yamaguchi sarcoma viral related oncogene homolog CD58 - cd58 molecule CD63 - cd63 molecule SMO - smoothened, frizzled family receptor APOE - apolipoprotein e STON2 - stonin 2 DTX3L - deltex 3-like (drosophila) SLC26A11 - solute carrier family 26 (anion exchanger), member 11 HSP90B1 - heat shock protein 90kda beta (grp94), member 1 APRT - adenine phosphoribosyltransferase CPNE6 - copine vi (neuronal) CD81 - cd81 molecule MARCKS - myristoylated alanine-rich protein kinase c substrate FAS - fas cell surface death receptor TRIM36 - tripartite motif containing 36 HYAL2 - hyaluronoglucosaminidase 2 NT5C - 5', 3'-nucleotidase, cytosolic RABAC1 - rab acceptor 1 (prenylated) SNCG - synuclein, gamma (breast cancer-specific protein 1) SLC30A10 - solute carrier family 30, member 10 B4GALT3 - udp-gal:betaglcnac beta 1,4- galactosyltransferase, polypeptide 3 IFNAR1 - interferon (alpha, beta and omega) receptor 1 SNRPD2 - small nuclear ribonucleoprotein d2 polypeptide 16.5kda IGF1 - insulin-like growth factor 1 (somatomedin c) DNPH1 - 2'-deoxynucleoside 5'-phosphate n-hydrolase 1
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					CDH11 - cadherin 11, type 2, ob-cadherin (osteoblast) GALM - galactose mutarotase (aldose 1-epimerase) CTDSP1 - ctd (carboxy-terminal domain, rna polymerase ii, polypeptide a) small phosphatase 1 SYT10 - synaptotagmin x NAGK - n-acetylglucosamine kinase SOD3 - superoxide dismutase 3, extracellular MAN1A1 - mannosidase, alpha, class 1a, member 1 ARHGDIB - rho gdp dissociation inhibitor (gdi) beta IGFBP7 - insulin-like growth factor binding protein 7 AKR1C1 - aldo-keto reductase family 1, member c1 PHF15 - phd finger protein 15 ARL3 - adp-ribosylation factor-like 3 POTEF - pote ankyrin domain family, member f DDT - d-dopachrome tautomerase ARRB1 - arrestin, beta 1 SNX5 - sorting nexin 5 CPNE7 - copine vii NIT2 - nitrilase family, member 2 ATP6V0A4 - atpase, h⁺ transporting, lysosomal v0 subunit a4 CPNE8 - copine viii FNBP1L - formin binding protein 1-like SPARC - secreted protein, acidic, cysteine-rich (osteonectin) RIPK2 - receptor-interacting serine-threonine kinase 2 TOM1L1 - target of myb1 (chicken)-like 1 CFD - complement factor d (adipsin) ASL - argininosuccinate lyase MYL12B - myosin, light chain 12b, regulatory
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					IL4I1 - interleukin 4 induced 1 TTN - titin TTPA - tocopherol (alpha) transfer protein MARCH8 - membrane-associated ring finger (c3hc4) 8, e3 ubiquitin protein ligase ASS1 - argininosuccinate synthase 1 YKT6 - ykt6 v-snare homolog (s. cerevisiae) ABCB6 - atp-binding cassette, sub-family b (mdr/tap), member 6 FN1 - fibronectin 1 TUBB2A - tubulin, beta 2a class iia TMEM8A - transmembrane protein 8a PMVK - phosphomevalonate kinase MPP6 - membrane protein, palmitoylated 6 (maguk p55 subfamily member 6) ACKR3 - atypical chemokine receptor 3 NPHS1 - nephrosis 1, congenital, finnish type (nephrin) GSS - glutathione synthetase SLC39A12 - solute carrier family 39 (zinc transporter), member 12 CREG1 - cellular repressor of e1a-stimulated genes 1 TXN - thioredoxin TMEM108 - transmembrane protein 108 RIN3 - ras and rab interactor 3 VPS29 - vacuolar protein sorting 29 homolog (s. cerevisiae) LMAN2L - lectin, mannose-binding 2-like GSTM3 - glutathione s-transferase mu 3 (brain) CHID1 - chitinase domain containing 1 GSTP1 - glutathione s-transferase pi 1 CYB5R1 - cytochrome b5 reductase 1 RPL12 - ribosomal protein l12 CPNE2 - copine ii
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					HEBP1 - heme binding protein 1 UBA52 - ubiquitin a-52 residue ribosomal protein fusion product 1 SCPEP1 - serine carboxypeptidase 1 ARPC5 - actin related protein 2/3 complex, subunit 5, 16kda GNB4 - guanine nucleotide binding protein (g protein), beta polypeptide 4 NRP1 - neuropilin 1 CHST14 - carbohydrate (n-acetylgalactosamine 4-0) sulfotransferase 14 SSR4 - signal sequence receptor, delta ARPC2 - actin related protein 2/3 complex, subunit 2, 34kda RRAS2 - related ras viral (r-ras) oncogene homolog 2 RPL35A - ribosomal protein l35a SYT17 - synaptotagmin xvii GGCT - gamma-glutamylcyclotransferase NPEPPS - aminopeptidase puromycin sensitive ACTR1A - arp1 actin-related protein 1 homolog a, centractin alpha (yeast) AHNAK - ahnak nucleoprotein NUCB2 - nucleobindin 2 COPZ1 - coatomer protein complex, subunit zeta 1 ATP6V1C1 - atpase, h+ transporting, lysosomal 42kda, v1 subunit c1 DERL2 - derlin 2 GALNT7 - udp-n-acetyl-alpha-d-galactosamine:polypeptide n-acetylgalactosaminyltransferase 7 (galnac-t7) GPR143 - g protein-coupled receptor 143 CD248 - cd248 molecule, endosialin CHL1 - cell adhesion molecule l1-like WLS - wntless homolog (drosophila) PRKCD - protein kinase c, delta HIST1H2AD - histone cluster 1, h2ad
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					MIF - macrophage migration inhibitory factor (glycosylation-inhibiting factor) DPYSL3 - dihydropyrimidinase-like 3 HIST1H2BD - histone cluster 1, h2bd VPS37D - vacuolar protein sorting 37 homolog d (s. cerevisiae) GLOD4 - glyoxalase domain containing 4 CNDP2 - cndp dipeptidase 2 (metallopeptidase m20 family) CLIC5 - chloride intracellular channel 5 RPS18 - ribosomal protein s18 AP3S1 - adaptor-related protein complex 3, sigma 1 subunit SLC44A2 - solute carrier family 44 (choline transporter), member 2 ZG16B - zymogen granule protein 16b TUBB6 - tubulin, beta 6 class v MARCH1 - membrane-associated ring finger (c3hc4) 1, e3 ubiquitin protein ligase OPRM1 - opioid receptor, mu 1 ITGA1 - integrin, alpha 1 RREB1 - ras responsive element binding protein 1 PACRG - park2 co-regulated VCP - valosin containing protein ANKRD50 - ankyrin repeat domain 50 RSU1 - ras suppressor protein 1 CANT1 - calcium activated nucleotidase 1 GAL - galanin/gmap prepropeptide PROS1 - protein s (alpha) MNDA - myeloid cell nuclear differentiation antigen RYR1 - ryanodine receptor 1 (skeletal) EZR - ezrin CALCRL - calcitonin receptor-like CCR5 - chemokine (c-c motif) receptor 5 (gene/pseudogene)
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					VIM - vimentin SYT4 - synaptotagmin iv ITGB7 - integrin, beta 7 SH3BGRL3 - sh3 domain binding glutamic acid-rich protein like 3 TMC8 - transmembrane channel-like 8
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Note: Each GO term was first determined by a threshold of $P < 0.00001$, FDR-corrected $q < 0.01$ on the GOrilla website.

Supplementary table 4**Neurotransmitters associated with divergent thinking brain pattern**

Reference	Tracer	Receptor/transporter	r	p
dubois2015	abp688	mGluR5	0.394301	1.00E-04
kantonen2020	carfentanil	MU/MOR	0.659887	1.00E-04
normandin2015	omar	CB1	0.448475	1.00E-04
turtonen2020	carfentanil	MU/MOR	0.668263	1.00E-04
gallezot2017	gsk189254	H3	0.411887	0.0002
laurikainen2018	fmpepd2	CB1	0.406122	0.0007
rosaneto	abp688	mGluR5	0.321057	0.0008
kaller2017	sch23390	D1	0.36432	0.001
smart2019	abp688	mGluR5	0.304835	0.0019
savli2012	p943	5HT1b	0.309945	0.0026
savli2012	way100635	5HT1a	0.333338	0.0028
gallezot2010	p943	5HT1b	0.30641	0.005899
fazio2016	madam	5HTT	0.240884	0.013699
beliveau2017	cumi101	5HT1a	0.203981	0.048295
radnakrishnan2018	gsk215083	5HT6	0.203557	0.064994
hillmer2016	flubatine	A4B2	0.219152	0.067793
aghourian2017	feobv	VACHT	0.205649	0.071593
beliveau2017	cimbi36	5HT2a	0.11702	0.089291
savli2012	altanserine	5HT2a	0.206328	0.089491
hesse2017	methylreboxetine	NAT	-0.14566	0.093591
sandiego2015	flb457	D2	0.270595	0.09759
beliveau2017	sb207145	5HT4	0.120375	0.110389
tuominen	feobv	VACHT	0.176085	0.139886
beliveau2017	az10419369	5HT1b	0.089236	0.144486
ding2010	mrb	NAT	-0.19028	0.160484

dukart2018	flumazenil	GABAA	0.145707	0.183082
savli2012	dasb	5HTT	0.182144	0.243076
dukart2018	fpcit	DAT	0.163029	0.273473
bedard2019	feobv	VACHT	0.119668	0.313569
smith2017	flb457	D2	0.140073	0.354065
sasaki2012	fepe2i	DAT	0.082955	0.361764
jaworska2020	fallypride	D2	0.122217	0.425557
beliveau2017	dasb	5HTT	0.066292	0.515448
norgaard2020	flumazenil	GABAA-bz	-0.02948	0.552045
naganawa2020	lsn3172176	M1	-0.05041	0.609239
alarkurti2015	raclopride	D2	-0.04944	0.70423

Note: Volumetric PET images were collected for 19 different neurotransmitter receptors and transporters across 9 different neurotransmitter system.