

Supplementary Table 2. Up regulated genes in patients with RA vs relatives ACCP-

| Gene Symbol | Genbank Accession | Gene Name | Fold Change | Regulation |
|-------------|-------------------|-----------------------------------------------------------------|-------------|------------|
| IRF2BP2 | NM_182972 | interferon regulatory factor 2 binding protein 2 | 2.2283545 | up |
| DNM3 | NM_015569 | dynamamin 3 | 2.179819 | up |
| WDR93 | NM_020212 | WD repeat domain 93 | 2.9332693 | up |
| CAST | NM_001042440 | calpastatin | 2.0139737 | up |
| DHRS7 | NM_016029 | dehydrogenase/reductase (SDR family) member 7 | 2.0166013 | up |
| LOC644366 | XM_932149 | uncharacterized LOC644366 | 2.5573158 | up |
| SUMO1 | NM_003352 | SMT3 suppressor of mif two 3 homolog 1 (<i>S. cerevisiae</i>) | 2.1390934 | up |
| FAM55C | NM_001134456 | family with sequence similarity 55, member C | 2.027618 | up |
| | | | 2.0528383 | up |
| SNCA | NM_007308 | synuclein, alpha (non A4 component of amyloid precursor) | 3.070638 | up |
| ETV4 | NM_001079675 | ets variant 4 | 2.078938 | up |
| | DB073168 | | 2.5304694 | up |
| DDX24 | NM_020414 | DEAD (Asp-Glu-Ala-Asp) box polypeptide 24 | 2.1985526 | up |
| BCL2 | NM_000633 | B-cell CLL/lymphoma 2 | 2.48382 | up |
| TMF1 | NM_007114 | TATA element modulatory factor 1 | 2.0867357 | up |
| OC90 | NM_001080399 | otoconin 90 | 2.187347 | up |
| MORC3 | NM_015358 | MORC family CW-type zinc finger 3 | 2.0230103 | up |
| AFTPH | NM_203437 | aftiphilin | 2.162457 | up |
| SRPK3 | NM_014370 | SRSF protein kinase 3 | 2.1222854 | up |
| FAM101B | NM_182705 | family with sequence similarity 101, member B | 2.2707503 | up |
| LYRM2 | NM_020466 | LYR motif containing 2 | 2.2003713 | up |
| | XM_003119905 | | 2.442962 | up |
| MRTO4 | NM_016183 | mRNA turnover 4 homolog (<i>S. cerevisiae</i>) | 2.3046987 | up |
| TNS1 | NM_022648 | tensin 1 | 2.028129 | up |
| XK | NM_021083 | X-linked Kx blood group (McLeod syndrome) | 4.1446037 | up |
| ACTR3 | NM_005721 | ARP3 actin-related protein 3 homolog (yeast) | 2.036796 | up |
| LOC654433 | NR_015377 | uncharacterized LOC654433 | 2.5371802 | up |
| DMXL1 | NM_005509 | Dmx-like 1 | 2.0011044 | up |
| C6orf105 | NM_032744 | chromosome 6 open reading frame 105 | 2.0007164 | up |
| CTNNB1 | NM_001904 | catenin (cadherin-associated protein), beta 1, 88kDa | 2.138463 | up |
| VNN1 | NM_004666 | vanin 1 | 2.690406 | up |
| SPRR2A | NM_005988 | small proline-rich protein 2A | 2.2807808 | up |
| KNDC1 | NM_152643 | kinase non-catalytic C-lobe domain (KIND) containing 1 | 2.3655996 | up |
| CSN1S2AP | NR_003720 | casein alpha s2-like A, pseudogene | 2.8103547 | up |
| ETS1 | NM_005238 | v-ets erythroblastosis virus E26 oncogene homolog 1 (avian) | 2.106572 | up |
| CPNE6 | NM_006032 | copine VI (neuronal) | 2.5055895 | up |
| NCK2 | NM_003581 | NCK adaptor protein 2 | 2.4129615 | up |
| EFCAB3 | NM_173503 | EF-hand calcium binding domain 3 | 3.4859395 | up |

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| | | | 2.2170436 up |
| LOC729305 | XR_132809 | uncharacterized LOC729305 | 2.516636 up |
| ADAM21 | NM_003813 | ADAM metalloproteinase domain 21 | 2.5039046 up |
| LOC643529 | NR_038382 | hCG2024094 | 2.3166313 up |
| | AF469204 | | 2.0560994 up |
| OTP | NM_032109 | orthopedia homeobox | 2.885809 up |
| LOC100131138 | NR_036513 | uncharacterized LOC100131138 | 2.896989 up |
| ABCC13 | NR_003088 | ATP-binding cassette, sub-family C (CFTR/MRP), member 13, pseudogene | 2.7825346 up |
| | | | 2.3469405 up |
| CD99L2 | BC025729 | CD99 molecule-like 2 | 3.9024413 up |
| PBX1 | NM_002585 | pre-B-cell leukemia homeobox 1 | 2.5033636 up |
| TRAM1 | NM_014294 | translocation associated membrane protein 1 | 2.0305283 up |
| C6orf97 | NM_025059 | chromosome 6 open reading frame 97 | 2.0603268 up |
| KCNK17 | NM_031460 | potassium channel, subfamily K, member 17 | 2.0954254 up |
| LPAR6 | NM_005767 | lysophosphatidic acid receptor 6 | 2.3590717 up |
| TAF1B | NM_005680 | TATA box binding protein (TBP)-associated factor, RNA polymerase I, B, 63kDa | 2.0075934 up |
| EPHB2 | NM_004442 | EPH receptor B2 | 2.2783122 up |
| CLEC7A | NM_197947 | C-type lectin domain family 7, member A | 2.0963047 up |
| TCEA1 | NM_006756 | transcription elongation factor A (SII), 1 | 2.1890926 up |
| | | | 2.4983416 up |
| CNTNAP2 | NM_014141 | contactin associated protein-like 2 | 2.3479564 up |
| TRUB1 | NM_139169 | TruB pseudouridine (psi) synthase homolog 1 (E. coli) | 2.062541 up |
| CLK1 | NM_001162407 | CDC-like kinase 1 | 2.8655984 up |
| LOC401127 | NR_026854 | WD repeat domain 5 pseudogene | 2.8764637 up |
| | AK093119 | | 2.2098558 up |
| GGH | NM_003878 | gamma-glutamyl hydrolase (conjugase, foylpolypogammaglutamyl hydrolase) | 2.1032088 up |
| CBLL1 | NM_024814 | Cas-Br-M (murine) ecotropic retroviral transforming sequence-like 1 | 2.181801 up |
| PMEL | NM_006928 | premelanosome protein | 2.0764756 up |
| TRAT1 | NM_016388 | T cell receptor associated transmembrane adaptor 1 | 2.0102658 up |
| ERBB3 | NM_001982 | v-erb-b2 erythroblastic leukemia viral oncogene homolog 3 (avian) | 2.1594281 up |
| | CU677518 | | 2.5904014 up |
| NXF3 | NM_022052 | nuclear RNA export factor 3 | 2.1772964 up |
| RASGEF1B | NM_152545 | RasGEF domain family, member 1B | 2.379134 up |
| PRKAA1 | NM_206907 | protein kinase, AMP-activated, alpha 1 catalytic subunit | 2.0089328 up |
| NDFIP2 | NM_019080 | Nedd4 family interacting protein 2 | 2.0371866 up |
| | | | 3.2509692 up |
| SYT15 | NM_181519 | synaptotagmin XV | 2.228985 up |
| DSCR8 | NR_026838 | Down syndrome critical region gene 8 | 2.3851957 up |
| MRC2 | NM_006039 | mannose receptor, C type 2 | 2.2330055 up |
| VNN2 | NM_004665 | vanin 2 | 2.119297 up |

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| RB1 | NM_000321 | retinoblastoma 1 | 2.1439729 up |
| CXorf57 | NM_018015 | chromosome X open reading frame 57 | 2.147257 up |
| LOC100653325 | XM_003403750 | uncharacterized LOC100653325 | 2.908699 up |
| PRSS33 | NM_152891 | protease, serine, 33 | 2.6216602 up |
| CASD1 | NM_022900 | CAS1 domain containing 1 | 2.2140183 up |
| LOC149837 | NR_015406 | uncharacterized LOC149837 | 2.6367295 up |
| BNIP3L | NM_004331 | BCL2/adenovirus E1B 19kDa interacting protein 3-like | 3.1700666 up |
| LINC00240 | NR_026775 | long intergenic non-protein coding RNA 240 | 2.9120626 up |
| ANP32E | NM_030920 | acidic (leucine-rich) nuclear phosphoprotein 32 family, member E | 2.136219 up |
| ARHGAP40 | NM_001164431 | Rho GTPase activating protein 40 | 2.0468392 up |
| ASPSCR1 | AK127159 | alveolar soft part sarcoma chromosome region, candidate 1 | 2.424498 up |
| PANK3 | BX648891 | pantothenate kinase 3 | 2.084829 up |
| ST7L | NM_138729 | suppression of tumorigenicity 7 like | 2.4821072 up |
| DNHD1 | NM_144666 | dynein heavy chain domain 1 | 2.0509136 up |
| SUV420H1 | NM_017635 | suppressor of variegation 4-20 homolog 1 (Drosophila) | 2.4649494 up |
| GPR78 | NM_080819 | G protein-coupled receptor 78 | 2.1594136 up |
| LYZL6 | NM_020426 | lysozyme-like 6 | 2.1683214 up |
| FZD6 | NM_003506 | frizzled family receptor 6 | 2.0556123 up |
| GUSBP1 | NR_027027 | glucuronidase, beta pseudogene 1 | 2.0721304 up |
| ZBTB6 | NM_006626 | zinc finger and BTB domain containing 6 | 2.0950403 up |
| A2ML1 | NM_144670 | alpha-2-macroglobulin-like 1 | 2.2553496 up |
| PCGEM1 | NR_002769 | prostate-specific transcript 1 (non-protein coding) | 2.5509214 up |
| | DA372173 | | 2.2742875 up |
| SLC25A32 | NM_030780 | solute carrier family 25, member 32 | 2.44969 up |
| UBE3A | NM_130839 | ubiquitin protein ligase E3A | 2.2440147 up |
| KLHDC8A | NM_018203 | kelch domain containing 8A | 2.1684434 up |
| DNAJC6 | NM_014787 | DnaJ (Hsp40) homolog, subfamily C, member 6 | 2.1866822 up |
| DNAJA2 | NM_005880 | DnaJ (Hsp40) homolog, subfamily A, member 2 | 2.431748 up |
| HRH4 | NM_021624 | histamine receptor H4 | 2.6878061 up |
| CYP2B6 | NM_000767 | cytochrome P450, family 2, subfamily B, polypeptide 6 | 2.3794148 up |
| LOC646851 | | putative uncharacterized protein LOC388900 | 2.0696096 up |
| DPPA5 | NM_001025290 | developmental pluripotency associated 5 | 2.4035685 up |
| VSIG10 | NM_019086 | V-set and immunoglobulin domain containing 10 | 2.181112 up |
| LRP12 | NM_013437 | low density lipoprotein receptor-related protein 12 | 2.2275164 up |
| USP1 | NM_003368 | ubiquitin specific peptidase 1 | 2.1401176 up |
| PPCS | | phosphopantothencysteine synthetase | 2.4874487 up |
| SKAP2 | NM_003930 | src kinase associated phosphoprotein 2 | 2.0402973 up |
| E2F2 | NM_004091 | E2F transcription factor 2 | 3.4562614 up |
| | | | 2.1896882 up |
| CX3CL1 | NM_002996 | chemokine (C-X3-C motif) ligand 1 | 2.070115 up |
| RSRC1 | NM_016625 | arginine/serine-rich coiled-coil 1 | 2.0188031 up |

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| ICA1 | NM_004968 | islet cell autoantigen 1, 69kDa | 2.4965518 up |
| PLEKHF2 | NM_024613 | pleckstrin homology domain containing, family F (with FYVE domain) member 2 | 2.0311363 up |
| ASB7 | NM_198243 | ankyrin repeat and SOCS box containing 7 | 2.0143614 up |
| EGR2 | NM_000399 | early growth response 2 | 3.0035136 up |
| ZNF235 | NM_004234 | zinc finger protein 235 | 2.211763 up |
| MYH7 | NM_000257 | myosin, heavy chain 7, cardiac muscle, beta | 2.426603 up |
| LYRM5 | NM_001001660 | LYR motif containing 5 | 2.1336875 up |
| MKRN1 | NM_013446 | makorin ring finger protein 1 | 2.173403 up |
| TAS2R50 | NM_176890 | taste receptor, type 2, member 50 | 2.1007218 up |
| PGGT1B | NM_005023 | protein geranylgeranyltransferase type I, beta subunit | 2.152535 up |
| F13A1 | NM_000129 | coagulation factor XIII, A1 polypeptide | 2.1604183 up 2.987308 up |
| C1S | NM_001734 | complement component 1, s subcomponent | 2.8285618 up |
| HLF | NM_002126 | hepatic leukemia factor | 2.1526155 up |
| TREML4 | NM_198153 | triggering receptor expressed on myeloid cells-like 4 | 2.3565435 up |
| ECHDC1 | NM_018479 | enoyl CoA hydratase domain containing 1 | 2.1612232 up |
| HIST2H2BF | NM_001161334 | histone cluster 2, H2bf | 2.5397558 up |
| RBM44 | NM_001080504 | RNA binding motif protein 44 | 2.0121586 up |
| DIXDC1 | NM_001037954 | DIX domain containing 1 | 2.7631285 up |
| ITPKB | NM_002221 | inositol-trisphosphate 3-kinase B | 2.588736 up |
| OLFM4 | NM_006418 | olfactomedin 4 | 2.48169 up |
| | XR_109175 | | 2.015282 up |
| SPATA21 | NM_198546 | spermatogenesis associated 21 | 2.326341 up |
| ATP6V0E1 | NM_003945 | ATPase, H+ transporting, lysosomal 9kDa, V0 subunit e1 | 2.058492 up 2.0634086 up |
| RAB39B | NM_171998 | RAB39B, member RAS oncogene family | 2.1268976 up 2.250161 up |
| WBP5 | NM_016303 | WW domain binding protein 5 | 2.0082836 up |
| | DB462629 | | 3.4639966 up |
| UHRF1 | NM_013282 | ubiquitin-like with PHD and ring finger domains 1 | 2.0640435 up |
| THAP9 | NM_024672 | THAP domain containing 9 | 2.0142074 up |
| TFF3 | NM_003226 | trefoil factor 3 (intestinal) | 2.442851 up |
| CXCL12 | NM_001033886 | chemokine (C-X-C motif) ligand 12 | 2.420027 up |
| LARP1B | NM_032239 | La ribonucleoprotein domain family, member 1B | 2.1858144 up |
| ZC3H14 | NM_024824 | zinc finger CCCH-type containing 14 | 2.1468008 up |
| FAM105B | NM_138348 | family with sequence similarity 105, member B | 2.0286233 up |
| BCAT1 | NM_005504 | branched chain amino-acid transaminase 1, cytosolic | 2.249215 up |
| EMP1 | NM_001423 | epithelial membrane protein 1 | 2.1554358 up 2.6047971 up |
| XPR1 | NM_004736 | xenotropic and polytropic retrovirus receptor 1 | 2.2743802 up |

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| WBSCR17 | NM_022479 | Williams-Beuren syndrome chromosome region 17 | 3.189225 up |
| GEMIN2 | NM_003616 | gem (nuclear organelle) associated protein 2 | 2.307731 up |
| FLJ43663 | NR_015431 | uncharacterized LOC378805 | 2.073444 up |
| MAMSTR | NM_182574 | MEF2 activating motif and SAP domain containing transcriptional regulator | 2.463689 up |
| TTY12 | NR_001551 | testis-specific transcript, Y-linked 12 (non-protein coding) | 2.6459787 up |
| NOV | NM_002514 | nephroblastoma overexpressed gene | 2.0665514 up |
| | | | 2.8055496 up |
| LOC100505876 | NR_037879 | uncharacterized LOC100505876 | 2.0519989 up |
| FAM76B | NM_144664 | family with sequence similarity 76, member B | 2.1129181 up |
| | XM_931148 | | 2.4586365 up |
| YEATS4 | NM_006530 | YEATS domain containing 4 | 2.0349157 up |
| PHC3 | NM_024947 | polyhomeotic homolog 3 (Drosophila) | 2.1305237 up |
| SERPING1 | | serpin peptidase inhibitor, clade G (C1 inhibitor), member 1 | 2.3713517 up |
| HAS1 | NM_001523 | hyaluronan synthase 1 | 2.2748744 up |
| AFAP1 | NM_001134647 | actin filament associated protein 1 | 2.338585 up |
| RGS12 | NM_002926 | regulator of G-protein signaling 12 | 2.4563916 up |
| | | | 2.6360404 up |
| KRT1 | NM_006121 | keratin 1 | 3.2459288 up |
| MFAP3L | NM_021647 | microfibrillar-associated protein 3-like | 2.8052254 up |
| PPP1R3G | NM_001145115 | protein phosphatase 1, regulatory subunit 3G | 2.0523548 up |
| KIAA0664 | NM_015229 | KIAA0664 | 3.1315942 up |
| NPPA | NM_006172 | natriuretic peptide A | 2.326938 up |
| LRTM1 | NM_020678 | leucine-rich repeats and transmembrane domains 1 | 2.12895 up |
| TAF1 | NM_004606 | TAF1 RNA polymerase II, TATA box binding protein (TBP)-associated factor, 250kDa | 2.2413568 up |
| TAF4B | NM_005640 | TAF4b RNA polymerase II, TATA box binding protein (TBP)-associated factor, 105kDa | 2.303319 up |
| DCT | NM_001922 | dopachrome tautomerase (dopachrome delta-isomerase, tyrosine-related protein 2) | 2.9082742 up |
| PTPRK | NM_002844 | protein tyrosine phosphatase, receptor type, K | 2.1001608 up |
| | | | 2.8254147 up |
| ATXN1 | NM_000332 | ataxin 1 | 2.852338 up |
| FEM1B | NM_015322 | fem-1 homolog b (C. elegans) | 2.2095041 up |
| STC1 | NM_003155 | stanniocalcin 1 | 2.8113954 up |
| ERAP1 | NM_001040458 | endoplasmic reticulum aminopeptidase 1 | 2.2850757 up |
| SRSF8 | NM_032102 | serine/arginine-rich splicing factor 8 | 2.1073203 up |
| TGM4 | NM_003241 | transglutaminase 4 (prostate) | 2.0748248 up |
| ACTR2 | NM_001005386 | ARP2 actin-related protein 2 homolog (yeast) | 2.082664 up |
| DKFZP434H168 | NR_026889 | uncharacterized LOC26077 | 2.367622 up |
| NT5C1A | NM_032526 | 5'-nucleotidase, cytosolic IA | 3.2178488 up |
| DACT1 | NM_016651 | dapper, antagonist of beta-catenin, homolog 1 (Xenopus laevis) | 2.8586888 up |
| | | | 2.6001701 up |

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| C18orf10 | NM_015476 | chromosome 18 open reading frame 10 | 2.4458992 up |
| TBC1D9 | NM_015130 | TBC1 domain family, member 9 (with GRAM domain) | 2.0756447 up |
| | | | 2.2269216 up |
| ZC3H12B | NM_001010888 | zinc finger CCCH-type containing 12B | 2.7539322 up |
| KRTAP15-1 | NM_181623 | keratin associated protein 15-1 | 2.3450232 up |
| PVR | NM_006505 | poliovirus receptor | 2.329061 up |
| NDUFA5 | NM_005000 | NADH dehydrogenase (ubiquinone) 1 alpha subcomplex, 5, 13kDa | 2.07942 up |
| FSD1 | NM_024333 | fibronectin type III and SPRY domain containing 1 | 3.3686712 up |
| ZNF334 | NM_199441 | zinc finger protein 334 | 2.1063576 up |
| RPIA | NM_144563 | ribose 5-phosphate isomerase A | 2.1208103 up |
| DCAF16 | NM_017741 | DDB1 and CUL4 associated factor 16 | 2.0078003 up |
| UGDH | NM_003359 | UDP-glucose 6-dehydrogenase | 2.3007631 up |
| C8orf31 | NM_173687 | chromosome 8 open reading frame 31 | 2.0861464 up |
| LRRD1 | NM_001161528 | leucine-rich repeats and death domain containing 1 | 2.6135151 up |
| | | | 2.67043 up |
| SCP2 | NM_002979 | sterol carrier protein 2 | 2.0640256 up |
| INADL | NM_176877 | InaD-like (Drosophila) | 2.3543868 up |
| JKAMP | NM_016475 | JNK1/MAPK8-associated membrane protein | 3.0562344 up |
| COL9A2 | BC065715 | collagen, type IX, alpha 2 | 2.650093 up |
| CDC5L | NM_001253 | CDC5 cell division cycle 5-like (S. pombe) | 2.244164 up |
| | | | 2.273086 up |
| S100P | NM_005980 | S100 calcium binding protein P | 4.51571 up |
| FLJ40536 | AK097855 | FLJ40536 protein | 3.1316957 up |
| TMEM212 | NM_001164436 | transmembrane protein 212 | 2.082301 up |
| C1orf185 | NM_001136508 | chromosome 1 open reading frame 185 | 2.2304368 up |
| | AL831934 | | 2.4530811 up |
| TRIOBP | NM_138632 | TRIO and F-actin binding protein | 3.1698763 up |
| RAB2B | NM_032846 | RAB2B, member RAS oncogene family | 2.0913925 up |
| SRSF1 | NM_001078166 | serine/arginine-rich splicing factor 1 | 2.0052543 up |
| TCL6 | BC041075 | T-cell leukemia/lymphoma 6 (non-protein coding) | 3.3149445 up |
| KLKB1 | NM_000892 | kallikrein B, plasma (Fletcher factor) 1 | 2.353181 up |
| PPP6C | NM_002721 | protein phosphatase 6, catalytic subunit | 2.0964527 up |
| KANK2 | NM_015493 | KN motif and ankyrin repeat domains 2 | 2.0405536 up |
| EIF5 | NM_001969 | eukaryotic translation initiation factor 5 | 2.0252223 up |
| LOC644192 | XR_111553 | uncharacterized LOC644192 | 2.560938 up |
| QRSL1 | NM_018292 | glutamyl-tRNA synthase (glutamine-hydrolyzing)-like 1 | 2.1386185 up |
| LOC100130503 | XM_001717149 | uncharacterized LOC100130503 | 3.0229201 up |
| C15orf54 | NM_207445 | chromosome 15 open reading frame 54 | 2.5744312 up |
| PCDH9 | BC150296 | protocadherin 9 | 2.9098659 up |
| OLFM3 | NM_058170 | olfactomedin 3 | 2.0711882 up |
| ERV18-1 | AK126787 | endogenous retrovirus group 18, member 1 | 2.1447368 up |

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| BNIP3L | NM_004331 | BCL2/adenovirus E1B 19kDa interacting protein 3-like | 2.0753558 up |
| KIAA1199 | NM_018689 | KIAA1199 | 3.0143433 up |
| | | | 2.2138634 up |
| C9orf30-TMEFF1 | NM_001198812 | C9orf30-TMEFF1 readthrough | 3.3958824 up |
| MYZAP | NM_001018100 | myocardial zonula adherens protein | 2.1927118 up |
| CALM2 | NM_001743 | calmodulin 2 (phosphorylase kinase, delta) | 2.0738442 up |
| COX11 | NM_004375 | COX11 cytochrome c oxidase assembly homolog (yeast) | 2.217919 up |
| PTEN | NM_000314 | phosphatase and tensin homolog | 2.2400694 up |
| LCN1 | NM_002297 | lipocalin 1 | 2.2093573 up |
| RCAN2 | NM_005822 | regulator of calcineurin 2 | 2.8625188 up |
| PAQR3 | NM_001040202 | progesterin and adipoQ receptor family member III | 3.2449074 up |
| KCND3 | NM_004980 | potassium voltage-gated channel, Shal-related subfamily, member 3 | 2.0554535 up |
| PTGFRN | NM_020440 | prostaglandin F2 receptor negative regulator | 3.1173081 up |
| SP4 | NM_003112 | Sp4 transcription factor | 2.0376666 up |
| RBM3 | NM_006743 | RNA binding motif (RNP1, RRM) protein 3 | 2.1024055 up |
| NR3C1 | NM_001018077 | nuclear receptor subfamily 3, group C, member 1 (glucocorticoid receptor) | 2.006029 up |
| HACE1 | NM_020771 | HECT domain and ankyrin repeat containing, E3 ubiquitin protein ligase 1 | 2.025491 up |
| PPP1CB | NM_002709 | protein phosphatase 1, catalytic subunit, beta isozyme | 2.2256777 up |
| ZBTB8A | NM_001040441 | zinc finger and BTB domain containing 8A | 2.1779 up |
| LHFPL5 | NM_182548 | lipoma HMGIC fusion partner-like 5 | 2.1454184 up |
| LOC146336 | NR_027242 | uncharacterized LOC146336 | 2.5623827 up |
| MEF2A | NM_001171894 | myocyte enhancer factor 2A | 2.020954 up |
| OR51E1 | NM_152430 | olfactory receptor, family 51, subfamily E, member 1 | 2.3279693 up |
| COLEC10 | NM_006438 | collectin sub-family member 10 (C-type lectin) | 2.115921 up |
| MAP7 | NM_003980 | microtubule-associated protein 7 | 2.1426651 up |
| MS4A1 | NM_152866 | membrane-spanning 4-domains, subfamily A, member 1 | 2.8324542 up |
| AKR1CL1 | NR_027916 | aldo-keto reductase family 1, member C-like 1 | 2.9109092 up |
| TSPYL6 | NM_001003937 | TSPY-like 6 | 3.3759797 up |
| C2orf69 | NM_153689 | chromosome 2 open reading frame 69 | 2.2670038 up |
| ZFHX4 | NM_024721 | zinc finger homeobox 4 | 3.385703 up |
| ROBO3 | NM_022370 | roundabout, axon guidance receptor, homolog 3 (Drosophila) | 2.0279005 up |
| AKD1 | NM_145025 | adenylate kinase domain containing 1 | 2.197917 up |
| RGSL1 | NM_001137669 | regulator of G-protein signaling like 1 | 3.459836 up |
| SRP72 | NM_006947 | signal recognition particle 72kDa | 2.125636 up |
| GRIK1-AS1 | NR_027021 | GRIK1 antisense RNA 1 (non-protein coding) | 2.1970606 up |
| WSB2 | NM_018639 | WD repeat and SOCS box containing 2 | 2.034205 up |
| TPD52L3 | NM_001001874 | tumor protein D52-like 3 | 3.119155 up |
| NR3C1 | NM_001018077 | nuclear receptor subfamily 3, group C, member 1 (glucocorticoid receptor) | 2.1705637 up |
| WNT4 | NM_030761 | wingless-type MMTV integration site family, member 4 | 2.174202 up |
| IGFL2 | NM_001002915 | IGF-like family member 2 | 2.4721038 up |

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| ANKRD62 | XM_003118756 | ankyrin repeat domain 62 | 2.1289215 up |
| ADORA1 | NM_000674 | adenosine A1 receptor | 2.4411824 up |
| HSPA5 | NM_005347 | heat shock 70kDa protein 5 (glucose-regulated protein, 78kDa) | 2.031998 up |
| EGR1 | NM_001964 | early growth response 1 | 7.548753 up |
| APOBEC4 | NM_203454 | apolipoprotein B mRNA editing enzyme, catalytic polypeptide-like 4 (putative) | 2.7338746 up 2.409002 up |
| AGTR1 | NM_031850 | angiotensin II receptor, type 1 | 2.2404194 up |
| EIF2S1 | NM_004094 | eukaryotic translation initiation factor 2, subunit 1 alpha, 35kDa | 2.2701647 up |
| ZIC1 | NM_003412 | Zic family member 1 | 2.0940816 up |
| LDHA | NM_005566 | lactate dehydrogenase A | 2.2790577 up |
| PNMA2 | NM_007257 | paraneoplastic antigen MA2 | 2.2493417 up |
| LMLN | NM_033029 | leishmanolysin-like (metallopeptidase M8 family) | 3.6547103 up |
| ZMAT1 | NM_001011657 | zinc finger, matrin-type 1 | 2.0963748 up |
| GNN | NR_027249 | Grp94 neighboring nucleotidase pseudogene | 2.4237833 up |
| PPP4R1L | NR_003505 | protein phosphatase 4, regulatory subunit 1-like | 2.1227238 up |
| POLR2F | | polymerase (RNA) II (DNA directed) polypeptide F | 2.1393638 up |
| HMGCS1 | NM_002130 | 3-hydroxy-3-methylglutaryl-CoA synthase 1 (soluble) | 2.22892 up |
| PWWP2A | NM_052927 | PWWP domain containing 2A | 2.0591938 up |
| FGF1 | NM_000800 | fibroblast growth factor 1 (acidic) | 2.0427027 up |
| WNT5A | NM_003392 | wingless-type MMTV integration site family, member 5A | 2.52388 up |
| SEMA5B | NM_001031702 | sema domain, seven thrombospondin repeats (type 1 and type 1-like), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 5B | 3.1140442 up 2.5068834 up |
| TANK | NM_133484 | TRAF family member-associated NFKB activator | 2.1689553 up |
| PTPRJ | NM_001098503 | protein tyrosine phosphatase, receptor type, J | 2.8290167 up |
| INSIG1 | NM_005542 | insulin induced gene 1 | 2.4062417 up |
| HCAR2 | NM_177551 | hydroxycarboxylic acid receptor 2 | 2.0337234 up |
| LGALS1 | NM_014181 | lectin, galactoside-binding-like | 2.2940598 up |
| GPX1 | NM_201397 | glutathione peroxidase 1 | 2.0866086 up |
| LOC100128278 | XR_110306 | uncharacterized LOC100128278 | 2.0862908 up |
| PAGE2B | NM_001015038 | P antigen family, member 2B | 2.3100486 up |
| NR2C1 | NM_001032287 | nuclear receptor subfamily 2, group C, member 1 | 2.2078183 up |
| BBS7 | NM_018190 | Bardet-Biedl syndrome 7 | 2.3186517 up |
| LOC254312 | NR_015413 | uncharacterized LOC254312 | 2.2718897 up |
| LRRN1 | NM_020873 | leucine rich repeat neuronal 1 | 2.6343048 up |
| LOC100505648 | NR_040058 | uncharacterized LOC100505648 | 2.584224 up |
| ATP6V1E1 | NM_001696 | ATPase, H+ transporting, lysosomal 31kDa, V1 subunit E1 | 2.3589697 up |
| ARGLU1 | AK304751 | arginine and glutamate rich 1 | 2.158685 up |
| LINC00239 | NR_026774 | long intergenic non-protein coding RNA 239 | 2.4558783 up |
| TFPI | NM_006287 | tissue factor pathway inhibitor (lipoprotein-associated coagulation inhibitor) | 2.8298364 up |

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|-----------|--------------|---------------------------------------------------------------------|--------------|
| MMAB | NM_052845 | methylmalonic aciduria (cobalamin deficiency) cblB type | 2.0586534 up |
| | | | 2.0243075 up |
| ARID5B | NM_032199 | AT rich interactive domain 5B (MRF1-like) | 2.1512454 up |
| FAM149B1 | NM_173348 | family with sequence similarity 149, member B1 | 2.105633 up |
| MOB4 | NM_015387 | MOB family member 4, phocein | 2.1700034 up |
| TXNDC17 | NM_032731 | thioredoxin domain containing 17 | 2.0698392 up |
| | | | 2.062969 up |
| METTL21A | NM_001127395 | methyltransferase like 21A | 2.144304 up |
| HNRNPA2B1 | NM_002137 | heterogeneous nuclear ribonucleoprotein A2/B1 | 2.6643212 up |
| FLI1 | NM_002017 | Friend leukemia virus integration 1 | 2.0435832 up |
| LDOC1 | NM_012317 | leucine zipper, down-regulated in cancer 1 | 2.162084 up |
| | JF834318 | | 2.0780642 up |
| ANO6 | NM_001025356 | anoctamin 6 | 2.251815 up |
| SPATA18 | NM_145263 | spermatogenesis associated 18 homolog (rat) | 2.1164663 up |
| TRIP12 | NM_004238 | thyroid hormone receptor interactor 12 | 2.0887654 up |
| STK17B | NM_004226 | serine/threonine kinase 17b | 2.2759771 up |
| TRPA1 | NM_007332 | transient receptor potential cation channel, subfamily A, member 1 | 2.3513865 up |
| HTN1 | NM_002159 | histatin 1 | 2.5871925 up |
| C20orf141 | NM_080739 | chromosome 20 open reading frame 141 | 2.1620407 up |
| | | | 2.3585575 up |
| HNRPDL | NM_031372 | heterogeneous nuclear ribonucleoprotein D-like | 2.0329182 up |
| C17orf42 | NM_024683 | chromosome 17 open reading frame 42 | 2.3261764 up |
| DEFB126 | NM_030931 | defensin, beta 126 | 2.0526075 up |
| CLIP4 | NM_024692 | CAP-GLY domain containing linker protein family, member 4 | 2.490263 up |
| NCBP1 | | nuclear cap binding protein subunit 1, 80kDa | 2.448397 up |
| OR5AN1 | NM_001004729 | olfactory receptor, family 5, subfamily AN, member 1 | 2.1693134 up |
| DNAH14 | | dynein, axonemal, heavy chain 14 | 2.2328424 up |
| CHST9 | NM_031422 | carbohydrate (N-acetylgalactosamine 4-0) sulfotransferase 9 | 2.297745 up |
| PRSS36 | NM_173502 | protease, serine, 36 | 2.410336 up |
| ZNF804B | NM_181646 | zinc finger protein 804B | 2.3050272 up |
| SERPINB9 | NM_004155 | serpin peptidase inhibitor, clade B (ovalbumin), member 9 | 2.2028115 up |
| ARPP21 | NM_016300 | cAMP-regulated phosphoprotein, 21kDa | 3.719478 up |
| ZNF271 | NR_024565 | zinc finger protein 271 | 2.343139 up |
| | | | 2.427121 up |
| WDR49 | AK097556 | WD repeat domain 49 | 2.124233 up |
| AKAP6 | NM_004274 | A kinase (PRKA) anchor protein 6 | 3.412468 up |
| RIN2 | NM_018993 | Ras and Rab interactor 2 | 2.0434923 up |
| MKL2 | NM_014048 | MKL/myocardin-like 2 | 2.0342753 up |
| ZNF673 | AK097159 | zinc finger family member 673 | 2.2941186 up |
| SLC12A5 | NM_020708 | solute carrier family 12 (potassium/chloride transporter), member 5 | 2.1169405 up |
| FAM171B | NM_177454 | family with sequence similarity 171, member B | 2.3244078 up |

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|----------|--------------|----------------------------------------------------------|--------------|
| POU2AF1 | NM_006235 | POU class 2 associating factor 1 | 2.0351043 up |
| LRRTM2 | NM_015564 | leucine rich repeat transmembrane neuronal 2 | 2.0155501 up |
| | XM_001721393 | | 2.6143386 up |
| SPTA1 | NM_003126 | spectrin, alpha, erythrocytic 1 (elliptocytosis 2) | 2.798148 up |
| | | | 3.8620672 up |
| DEFA4 | NM_001925 | defensin, alpha 4, corticostatin | 2.1196764 up |
| RBM12 | NM_006047 | RNA binding motif protein 12 | 2.0118887 up |
| | | | 2.006014 up |
| METAP2 | NM_006838 | methionyl aminopeptidase 2 | 2.1589792 up |
| FONG | NR_034096 | uncharacterized LOC348751 | 2.1759725 up |
| CLIC4 | NM_013943 | chloride intracellular channel 4 | 2.7739673 up |
| | | | 4.2431383 up |
| EVI2A | NM_001003927 | ecotropic viral integration site 2A | 2.1364188 up |
| | | | 2.3581214 up |
| CLCN4 | NM_001830 | chloride channel 4 | 2.0227542 up |
| PPAPDC3 | | phosphatidic acid phosphatase type 2 domain containing 3 | 2.159848 up |
| CNGA2 | NM_005140 | cyclic nucleotide gated channel alpha 2 | 2.0578973 up |
| CCL11 | NM_002986 | chemokine (C-C motif) ligand 11 | 2.0526867 up |
| CPEB4 | NM_030627 | cytoplasmic polyadenylation element binding protein 4 | 2.160189 up |
| MCAT | NM_173467 | malonyl CoA:ACP acyltransferase (mitochondrial) | 2.3976038 up |
| MB21D2 | NM_178496 | Mab-21 domain containing 2 | 2.573574 up |
| TDH | NR_001578 | L-threonine dehydrogenase | 2.354822 up |
| LIMD1 | NM_014240 | LIM domains containing 1 | 2.399504 up |
| NAP1L1 | NM_139207 | nucleosome assembly protein 1-like 1 | 2.209823 up |
| YTHDF3 | NM_152758 | YTH domain family, member 3 | 2.0574346 up |
| SENP6 | NM_015571 | SUMO1/sentrin specific peptidase 6 | 2.0189803 up |
| | | | 3.1574576 up |
| XG | NM_175569 | Xg blood group | 2.3177845 up |
| C6orf64 | NM_018322 | chromosome 6 open reading frame 64 | 2.220312 up |
| SLITRK5 | NM_015567 | SLIT and NTRK-like family, member 5 | 2.0472965 up |
| CPNE1 | NM_003915 | copine I | 2.5574238 up |
| PPP2R3C | NM_017917 | protein phosphatase 2, regulatory subunit B'', gamma | 2.1267047 up |
| CNTNAP3 | NM_033655 | contactin associated protein-like 3 | 2.08096 up |
| ZNF367 | NM_153695 | zinc finger protein 367 | 2.1370528 up |
| C20orf54 | NM_033409 | chromosome 20 open reading frame 54 | 2.5945551 up |
| | | | 3.6786578 up |
| MYO3A | BC036079 | myosin IIIA | 2.5491035 up |
| ZNF664 | NM_152437 | zinc finger protein 664 | 2.3150718 up |
| GCNT1 | NM_001097634 | glucosaminyl (N-acetyl) transferase 1, core 2 | 2.0211456 up |
| ANXA1 | NM_000700 | annexin A1 | 2.0005891 up |
| TTC25 | NM_031421 | tetratricopeptide repeat domain 25 | 2.5326748 up |

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|-----------|--------------|--------------------------------------------------------------------------|--------------|
| APOL6 | NM_030641 | apolipoprotein L, 6 | 2.4373572 up |
| YIPF6 | NM_173834 | Yip1 domain family, member 6 | 2.0629535 up |
| GSTA7P | NR_033760 | glutathione S-transferase alpha 7, pseudogene | 9.545928 up |
| | BX103737 | | 2.3013823 up |
| KRTDAP | NM_207392 | keratinocyte differentiation-associated protein | 2.9482884 up |
| ZNF365 | NM_014951 | zinc finger protein 365 | 2.1590126 up |
| CYP39A1 | NM_016593 | cytochrome P450, family 39, subfamily A, polypeptide 1 | 2.3996668 up |
| WFDC2 | NM_006103 | WAP four-disulfide core domain 2 | 4.569528 up |
| ZCCHC7 | NM_032226 | zinc finger, CCHC domain containing 7 | 2.0827682 up |
| LOC645195 | AK123450 | uncharacterized LOC645195 | 2.0309558 up |
| HEMGN | NM_018437 | hemogen | 2.504413 up |
| F5 | NM_000130 | coagulation factor V (proaccelerin, labile factor) | 2.1552105 up |
| DNAJC15 | NM_013238 | DnaJ (Hsp40) homolog, subfamily C, member 15 | 2.3551683 up |
| FAM46C | NM_017709 | family with sequence similarity 46, member C | 2.6403832 up |
| DNAJC21 | NM_194283 | DnaJ (Hsp40) homolog, subfamily C, member 21 | 2.2258818 up |
| CHTOP | AK097870 | chromatin target of PRMT1 | 2.005364 up |
| MSL2 | NM_018133 | male-specific lethal 2 homolog (Drosophila) | 2.1028452 up |
| HP | NM_005143 | haptoglobin | 2.1156824 up |
| TRIM58 | NM_015431 | tripartite motif containing 58 | 2.4587033 up |
| FECH | NM_001012515 | ferrochelatase | 3.7838116 up |
| | AK124695 | | 3.2575479 up |
| WNK1 | NM_001184985 | WNK lysine deficient protein kinase 1 | 2.0270514 up |
| SSB | NM_003142 | Sjogren syndrome antigen B (autoantigen La) | 2.0013916 up |
| HNRNPH3 | NM_012207 | heterogeneous nuclear ribonucleoprotein H3 (2H9) | 2.3336275 up |
| | | | 2.0423963 up |
| ADD2 | NM_017482 | adducin 2 (beta) | 2.0718493 up |
| SLC14A1 | NM_001146037 | solute carrier family 14 (urea transporter), member 1 (Kidd blood group) | 3.0283325 up |
| FIG4 | | FIG4 homolog, SAC1 lipid phosphatase domain containing (S. cerevisiae) | 2.0093048 up |
| TMBIM4 | NM_016056 | transmembrane BAX inhibitor motif containing 4 | 2.522177 up |
| NR1D2 | NM_005126 | nuclear receptor subfamily 1, group D, member 2 | 4.0018487 up |
| LOC147727 | NR_024333 | uncharacterized LOC147727 | 2.1628058 up |
| PRDX3 | NM_006793 | peroxiredoxin 3 | 2.8585997 up |
| EPHB4 | NM_004444 | EPH receptor B4 | 2.2087057 up |
| MS4A6A | NM_152852 | membrane-spanning 4-domains, subfamily A, member 6A | 2.3323429 up |
| ACER1 | NM_133492 | alkaline ceramidase 1 | 2.0135407 up |
| RBM12 | NM_006047 | RNA binding motif protein 12 | 2.4134982 up |
| LIPA | NM_000235 | lipase A, lysosomal acid, cholesterol esterase | 2.1935859 up |
| NDUFV2 | NM_021074 | NADH dehydrogenase (ubiquinone) flavoprotein 2, 24kDa | 2.0734174 up |
| MRPL1 | NM_020236 | mitochondrial ribosomal protein L1 | 2.054657 up |
| CA1 | NM_001738 | carbonic anhydrase I | 2.6069458 up |
| COL8A2 | NM_005202 | collagen, type VIII, alpha 2 | 2.1654181 up |

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| MEAF6 | NM_022756 | MYST/Esa1-associated factor 6 | 2.2747684 up |
| STAP1 | NM_012108 | signal transducing adaptor family member 1 | 2.0867808 up |
| ECHDC1 | NM_018479 | enoyl CoA hydratase domain containing 1 | 2.2329905 up |
| ATF1 | NM_005171 | activating transcription factor 1 | 2.1539748 up |
| STK17B | BC052561 | serine/threonine kinase 17b | 2.6169624 up |
| WDR26 | NM_025160 | WD repeat domain 26 | 2.102758 up |
| SNAP23 | NM_003825 | synaptosomal-associated protein, 23kDa | 2.47934 up |
| MAB21L2 | NM_006439 | mab-21-like 2 (C. elegans) | 3.562848 up |
| ANAPC16 | NM_001242546 | anaphase promoting complex subunit 16 | 2.0838695 up |
| | | | 2.8251603 up |
| ZDHHC2 | NM_016353 | zinc finger, DHHC-type containing 2 | 2.258542 up |
| TWSG1 | NM_020648 | twisted gastrulation homolog 1 (Drosophila) | 2.0730171 up |
| | | | 2.439557 up |
| IFT81 | NM_014055 | intraflagellar transport 81 homolog (Chlamydomonas) | 2.318921 up |
| C15orf29 | NM_024713 | chromosome 15 open reading frame 29 | 2.0358288 up |
| TUBBP5 | NR_027156 | tubulin, beta pseudogene 5 | 3.9768343 up |
| BRD1 | NM_014577 | bromodomain containing 1 | 2.194385 up |
| LYPLAL1 | NM_138794 | lysophospholipase-like 1 | 2.179327 up |
| SOX13 | NM_005686 | SRY (sex determining region Y)-box 13 | 2.096142 up |
| FLJ31306 | NR_029434 | uncharacterized LOC379025 | 2.131765 up |
| CTDSPL2 | NM_016396 | CTD (carboxy-terminal domain, RNA polymerase II, polypeptide A) small phosphatase like 2 | 2.0725737 up |
| MZT1 | NM_001071775 | mitotic spindle organizing protein 1 | 2.2675748 up |
| OSBPL8 | NM_020841 | oxysterol binding protein-like 8 | 2.103212 up |
| LOC153577 | AK054653 | uncharacterized LOC153577 | 2.297152 up |
| LOC151009 | NR_027244 | uncharacterized LOC151009 | 2.0207531 up |
| DDX21 | NM_004728 | DEAD (Asp-Glu-Ala-Asp) box polypeptide 21 | 2.1099486 up |
| SCAI | NM_173690 | suppressor of cancer cell invasion | 2.0355842 up |
| SLFN11 | NM_001104587 | schlafen family member 11 | 2.0337663 up |
| CD69 | AK303383 | CD69 molecule | 2.662265 up |
| ARMCX2 | NM_014782 | armadillo repeat containing, X-linked 2 | 2.0339794 up |
| C20orf196 | NM_152504 | chromosome 20 open reading frame 196 | 2.2117243 up |
| | | | 2.466904 up |
| SCOC | NM_032547 | short coiled-coil protein | 2.552416 up |
| SLC44A5 | NM_152697 | solute carrier family 44, member 5 | 2.0434926 up |
| SETD7 | BC066361 | SET domain containing (lysine methyltransferase) 7 | 2.5649555 up |
| BMP2K | NM_017593 | BMP2 inducible kinase | 2.03252 up |
| ZNF217 | NM_006526 | zinc finger protein 217 | 2.3352828 up |
| PLA2G12A | NM_030821 | phospholipase A2, group X1IA | 2.042286 up |
| CFL2 | NM_021914 | cofilin 2 (muscle) | 2.5331726 up |
| CLEC2D | NM_001004419 | C-type lectin domain family 2, member D | 2.0176551 up |

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|-----------|--------------|------------------------------------------------------------------------|--------------|
| | | | 2.5991683 up |
| UBXN4 | NM_014607 | UBX domain protein 4 | 2.1819606 up |
| FAR1 | NM_032228 | fatty acyl CoA reductase 1 | 2.0757563 up |
| SKA2 | NM_182620 | spindle and kinetochore associated complex subunit 2 | 2.2772539 up |
| TBCEL | NM_152715 | tubulin folding cofactor E-like | 3.0788116 up |
| | | | 2.1227462 up |
| PIK3R1 | NM_181523 | phosphoinositide-3-kinase, regulatory subunit 1 (alpha) | 2.1363208 up |
| IFIT1B | NM_001010987 | interferon-induced protein with tetratricopeptide repeats 1B | 3.2180007 up |
| EXOC8 | NM_175876 | exocyst complex component 8 | 2.1484337 up |
| FAM125A | XR_111839 | family with sequence similarity 125, member A | 2.2122724 up |
| BMPR2 | NM_001204 | bone morphogenetic protein receptor, type II (serine/threonine kinase) | 2.355234 up |
| JMY | NM_152405 | junction mediating and regulatory protein, p53 cofactor | 2.211525 up |
| BPGM | NM_199186 | 2,3-bisphosphoglycerate mutase | 2.9273324 up |
| SSX2IP | NM_014021 | synovial sarcoma, X breakpoint 2 interacting protein | 2.7748337 up |
| LOC729678 | NR_027183 | uncharacterized LOC729678 | 2.121622 up |
| OBSL1 | NM_015311 | obscurin-like 1 | 2.6144726 up |
| LEKR1 | AK094480 | leucine, glutamate and lysine rich 1 | 3.026911 up |
| PLCL2 | NM_015184 | phospholipase C-like 2 | 2.233596 up |
| OR4D1 | NM_012374 | olfactory receptor, family 4, subfamily D, member 1 | 3.1983545 up |
| AHRR | NM_020731 | aryl-hydrocarbon receptor repressor | 4.9523463 up |
| GJA10 | NM_032602 | gap junction protein, alpha 10, 62kDa | 2.4125774 up |
| MRGPRX2 | NM_054030 | MAS-related GPR, member X2 | 3.2090268 up |
| CPB2 | NM_016413 | carboxypeptidase B2 (plasma) | 3.2224495 up |
| CCP110 | NM_014711 | centriolar coiled coil protein 110kDa | 2.1312978 up |
| TMEM202 | NM_001080462 | transmembrane protein 202 | 3.7996936 up |
| NSUN3 | NM_022072 | NOP2/Sun domain family, member 3 | 2.3972085 up |
| SGTB | NM_019072 | small glutamine-rich tetratricopeptide repeat (TPR)-containing, beta | 2.080579 up |
| PGM3 | NM_015599 | phosphoglucomutase 3 | 2.1007688 up |
| TMEM63A | NM_014698 | transmembrane protein 63A | 2.4857924 up |
| TMEM220 | NM_001004313 | transmembrane protein 220 | 3.3820732 up |
| TSC2D2 | NM_014779 | TSC22 domain family, member 2 | 2.316937 up |
| C3orf55 | NM_001243729 | chromosome 3 open reading frame 55 | 2.1544988 up |
| SCAMP1 | NM_004866 | secretory carrier membrane protein 1 | 2.1405213 up |
| VMA21 | NM_001017980 | VMA21 vacuolar H ⁺ -ATPase homolog (<i>S. cerevisiae</i>) | 2.0026705 up |
| KRTAP19-2 | NM_181608 | keratin associated protein 19-2 | 3.180922 up |
| | | | 3.7708602 up |
| DPY19L2 | NM_173812 | dpy-19-like 2 (<i>C. elegans</i>) | 2.218427 up |
| CTSL2 | NM_001333 | cathepsin L2 | 2.8008616 up |
| LOC199897 | XM_001718592 | uncharacterized LOC199897 | 2.5137637 up |
| MOSPD1 | NM_019556 | motile sperm domain containing 1 | 2.2056162 up |
| HNRNPH1 | NM_005520 | heterogeneous nuclear ribonucleoprotein H1 (H) | 2.1390495 up |

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|----------|--------------|---------------------------------------------------------------------------------|--------------|
| FBXO24 | NM_033506 | F-box protein 24 | 3.42086 up |
| L3MBTL3 | NM_032438 | l(3)mbt-like 3 (Drosophila) | 2.725612 up |
| ARHGAP28 | NM_001010000 | Rho GTPase activating protein 28 | 3.630918 up |
| CCT6B | NM_006584 | chaperonin containing TCP1, subunit 6B (zeta 2) | 2.0370011 up |
| NCS1 | NM_014286 | neuronal calcium sensor 1 | 2.0359647 up |
| SBF2 | NM_030962 | SET binding factor 2 | 2.0668836 up |
| SHOC2 | NM_007373 | soc-2 suppressor of clear homolog (C. elegans) | 2.1174717 up |
| CDADC1 | NM_030911 | cytidine and dCMP deaminase domain containing 1 | 2.978757 up |
| GCG | NM_002054 | glucagon | 2.2334974 up |
| AKAP2 | NM_001004065 | A kinase (PRKA) anchor protein 2 | 2.231729 up |
| TGM2 | NM_198951 | transglutaminase 2 (C polypeptide, protein-glutamine-gamma-glutamyltransferase) | 2.7073684 up |
| DNAAF1 | NM_178452 | dynein, axonemal, assembly factor 1 | 2.1368246 up |
| WDR43 | NM_015131 | WD repeat domain 43 | 2.169946 up |
| SLAIN2 | NM_020846 | SLAIN motif family, member 2 | 2.322515 up |
| ARHGAP18 | NM_033515 | Rho GTPase activating protein 18 | 2.1493456 up |
| CBX1 | NM_006807 | chromobox homolog 1 | 2.0253344 up |
| FABP4 | NM_001442 | fatty acid binding protein 4, adipocyte | 2.1605802 up |
| SLC25A26 | NM_173471 | solute carrier family 25, member 26 | 2.3715482 up |
| AMD1 | NM_001634 | adenosylmethionine decarboxylase 1 | 2.2836063 up |
