

**Supplementary Table 2.** Upregulation of peripheral blood antibodies reactive to multiple target proteins <sup>a</sup>

| Protein Symbol | Full Name  | Patient   | Pre    | Post    | Fold change (Log 2) |
|----------------|--|-----------|--------|---------|---------------------|
| Hrb            | HIV-1 Rev binding protein, mRNA  | 08212-113 | 198    | 65352.5 | 8.37                |
| DYRK3          | dual-specificity tyrosine-(Y)-phosphorylation regulated kinase 3 (DYRK3), transcript variant 2   | 08212-104 | 198    | 8490    | 5.42                |
| SCGB1C1        | secretoglobin, family 1C, member 1 (SCGB1C1)   | 08212-100 | 277.5  | 11187.5 | 5.33                |
| MED29          | mediator of RNA polymerase II transcription subunit 29   | 08212-104 | 198    | 7854    | 5.31                |
| ERBB2          | v-erb-b2 erythroblastic leukemia viral oncogene homolog 2, neuro/glioblastoma derived oncogene homolog (avian) (ERBB2), transcript variant 2 | 08212-100 | 530    | 16581   | 4.97                |
| ETHE1          | ethylmalonic encephalopathy 1 (ETHE1)  | 08212-114 | 2977   | 65256.5 | 4.45                |
| FGF13          | fibroblast growth factor 13 (FGF13), transcript variant 1A   | 08212-100 | 198    | 4006    | 4.34                |
| MCCD1          | Mitochondrial coiled-coil domain protein 1   | 08212-100 | 1383.5 | 26615.5 | 4.27                |
| TGM1           | transglutaminase 1 (K polypeptide epidermal type I, protein-glutamine-gamma-glutamyltransferase) (TGM1)                                      | 08212-100 | 2059.5 | 33216   | 4.01                |
| RAB11B         | RAB11B, member RAS oncogene family (RAB11B)  | 08212-114 | 3142.5 | 46900.5 | 3.90                |
| EGFR           | epidermal growth factor receptor (erythroblastic leukemia viral (v-erb-b) oncogene homolog, avian) (EGFR)                                    | 08212-100 | 1647   | 23397.5 | 3.83                |
| LETM2          | leucine zipper-EF-hand containing transmembrane protein 2 (LETM2)  | 08212-100 | 1431   | 20262   | 3.82                |
| EGFR           | epidermal growth factor receptor (erythroblastic leukemia viral (v-erb-b) oncogene homolog, avian) (EGFR)                                    | 08212-100 | 1635.5 | 21656   | 3.73                |
| XRCC6BP1       | XRCC6 binding protein 1 (XRCC6BP1)   | 08212-100 | 3573   | 45260.5 | 3.66                |
| CSNK1A1        | casein kinase 1, alpha 1 (CSNK1A1), transcript variant 1   | 08212-113 | 3053.5 | 37677   | 3.63                |
| CLDN18         | claudin 18 (CLDN18), transcript variant 1  | 08212-114 | 3328   | 38165.5 | 3.52                |

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|          |   |           |        |         |      |
|----------|---|-----------|--------|---------|------|
| NMU      | Neuromedin U (NMU), mRNA  | 08212-113 | 198    | 2222    | 3.49 |
| RBM3     | RNA binding motif (RNP1, RRM) protein 3 (RBM3), transcript variant 2, mRNA  | 08212-100 | 1686.5 | 18383.5 | 3.45 |
| SUMO2    | SMT3 suppressor of mif two 3 homolog 2 ( <i>S. cerevisiae</i> ) (SUMO2)   | 08212-100 | 1637   | 17413.5 | 3.41 |
| SERPINB4 | serpin peptidase inhibitor, clade B (ovalbumin), member 4 (SERPINB4)  | 08212-100 | 198    | 2053.5  | 3.37 |
| RP2      | retinitis pigmentosa 2 (X-linked recessive) (RP2)   | 08212-100 | 1,328  | 12,771  | 3.27 |
| FCHSD2   | FCH and double SH3 domains 2 (FCHSD2)   | 08212-100 | 696    | 6,628   | 3.25 |
| C9orf37  | chromosome 9 open reading frame 37 (C9orf37)  | 08212-100 | 5,868  | 53,983  | 3.20 |
| LRTM1    | leucine-rich repeats and transmembrane domains 1 (LRTM1)  | 08212-100 | 1,262  | 11,461  | 3.18 |
| EGFR     | epidermal growth factor receptor (erythroblastic leukemia viral (v-erb-b) oncogene homolog, avian) (EGFR)   | 08212-100 | 932    | 8,320   | 3.16 |
| EGFR     | epidermal growth factor receptor (erythroblastic leukemia viral (v-erb-b) oncogene homolog, avian) (EGFR)   | 08212-100 | 598    | 5,330   | 3.16 |
| FAM      | Fas apoptotic inhibitory molecule (FAIM), transcript variant 4  | 08212-100 | 510    | 4,360   | 3.10 |
| GLRX2    | glutaredoxin 2 (GLRX2), transcript variant 2  | 08212-114 | 4,211  | 32,969  | 2.97 |
| SUMO2    | SMT3 suppressor of mif two 3 homolog 2 ( <i>S. cerevisiae</i> ) (SUMO2), transcript variant 1   | 08212-100 | 466    | 3,548   | 2.93 |
| PIGC     | Phosphatidylinositol N-acetylglucosaminyltransferase subunit C  | 08212-100 | 8,872  | 65,179  | 2.88 |
| PPWD1    | peptidylprolyl isomerase domain and WD repeat containing 1 (PPWD1)  | 08212-100 | 4,906  | 35,876  | 2.87 |
| GART     | phosphoribosylglycinamide formyltransferase, phosphoribosylglycinamide synthetase, phosphoribosylaminoimidazole synthetase (GART), transcript variant 2 | 08212-113 | 1,201  | 8,767   | 2.87 |

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|          |   |           |        |        |      |
|----------|---|-----------|--------|--------|------|
| RCC1     | regulator of chromosome condensation 1 (RCC1), transcript variant 3                                       | 08212-113 | 2,992  | 21,829 | 2.87 |
| LRPAP1   | LRPAP1 / A2MRAP Protein (His Tag)   | 08212-113 | 2,240  | 15,913 | 2.83 |
| EGFR     | epidermal growth factor receptor (erythroblastic leukemia viral (v-erb-b) oncogene homolog, avian) (EGFR) | 08212-100 | 1,153  | 8,035  | 2.80 |
| LARP4    | La ribonucleoprotein domain family, member 4 (LARP4), transcript variant 3                                | 08212-114 | 9,416  | 65,396 | 2.80 |
| KIF3C    | kinesin family member 3C (KIF3C)  | 08212-100 | 1,643  | 11,025 | 2.75 |
| LARP4    | La ribonucleoprotein domain family, member 4 (LARP4), transcript variant 2                                | 08212-114 | 9,924  | 65,395 | 2.72 |
| VAMP3    | vesicle-associated membrane protein 3 (cellubrevin) (VAMP3)   | 08212-113 | 198    | 1,297  | 2.71 |
| MAP1LC3A | microtubule-associated protein 1 light chain 3 alpha (MAP1LC3A), transcript variant 2                     | 08212-100 | 1,647  | 10,545 | 2.68 |
| IL3RA    | IL3RA / CD123 Protein   | 08212-100 | 9,677  | 61,005 | 2.66 |
| AAA1     | AAA1 protein (AAA1), transcript variant III, mRNA   | 08212-100 | 5,784  | 34,624 | 2.58 |
| ISCU     | iron-sulfur cluster scaffold homolog (E. coli) (ISCU)   | 08212-113 | 1,127  | 6,666  | 2.57 |
| MGC71469 | MGC71469 protein, mRNA  | 08212-100 | 1,682  | 9,947  | 2.56 |
| TIGD1    | Tigger transposable element-derived protein 1   | 08212-114 | 11,023 | 63,811 | 2.53 |
| SRRM2    | serine/arginine repetitive matrix 2 (SRRM2)   | 08212-100 | 4,886  | 28,251 | 2.53 |
| USP39    | ubiquitin specific peptidase 39 (USP39)   | 08212-100 | 9,609  | 53,698 | 2.48 |
| NBPF22P  | neuroblastoma breakpoint family, member 22 (pseudogene) (NBPF22P)   | 08212-113 | 3,804  | 21,042 | 2.47 |
| FAM119B  | family with sequence similarity 119, member B (FAM119B)   | 08212-100 | 4,886  | 26,693 | 2.45 |
| COPS6    | COP9 constitutive photomorphogenic homolog subunit 6 (Arabidopsis) (COPS6), mRNA                          | 08212-113 | 3,516  | 18,599 | 2.40 |
| MCFD2    | Multiple coagulation factor deficiency protein 2  | 08212-113 | 2,143  | 11,129 | 2.38 |

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|           |   |           |       |        |      |
|-----------|---|-----------|-------|--------|------|
| MAPK11    | mitogen-activated protein kinase 11 (MAPK11), transcript variant 2  | 08212-113 | 198   | 1,027  | 2.37 |
| PGAM1     | Phosphoglycerate mutase 1   | 08212-100 | 1,761 | 9,094  | 2.37 |
| TCP10     | t-complex 10 (mouse) (TCP10)  | 08212-100 | 1,377 | 7,067  | 2.36 |
| SPIC      | Spi-C transcription factor (Spi-1/PU.1 related) (SPIC)  | 08212-100 | 637   | 3,256  | 2.36 |
| MAT1A     | methionine adenosyltransferase I, alpha (MAT1A)   | 08212-100 | 3,000 | 15,096 | 2.33 |
| LOC554207 | hypothetical LOC554207 (LOC554207)  | 08212-100 | 684   | 3,360  | 2.30 |
| PCYT2     | phosphate cytidyltransferase 2, ethanolamine (PCYT2)  | 08212-111 | 4,383 | 20,928 | 2.25 |
| RPC9      | DNA-directed RNA polymerase III subunit RPC9  | 08212-100 | 1,573 | 7,359  | 2.23 |
| CRAT      | Carnitine O-acetyltransferase   | 08212-100 | 1,194 | 5,473  | 2.20 |
| DUT       | deoxyuridine triphosphatase (DUT), nuclear gene encoding mitochondrial protein, transcript variant 2, mRNA.         | 08212-111 | 2,817 | 12,774 | 2.18 |
| RNF13     | ring finger protein 13 (RNF13), transcript variant 2  | 08212-100 | 1,209 | 5,426  | 2.17 |
| RPS6KB1   | ribosomal protein S6 kinase, 70kDa, polypeptide 1 (RPS6KB1)   | 08212-113 | 4,993 | 22,419 | 2.17 |
| CADPS     | Ca <sup>2+</sup> -dependent secretion activator (CADPS)   | 08212-104 | 3,110 | 13,912 | 2.16 |
| UCHL3     | ubiquitin carboxyl-terminal esterase L3 (ubiquitin thiolesterase) (UCHL3)   | 08212-113 | 3,642 | 16,262 | 2.16 |
| OXS1      | oxidative-stress responsive 1 (OXS1)  | 08212-113 | 3,786 | 16,896 | 2.16 |
| SLC2A3    | solute carrier family 2 (facilitated glucose transporter), member 3 (SLC2A3)  | 08212-113 | 943   | 4,175  | 2.15 |
| PRKRIR    | protein-kinase, interferon-inducible double stranded RNA dependent inhibitor, repressor of (P58 repressor) (PRKRIR) | 08212-113 | 1,721 | 7,373  | 2.10 |
| CDK2      | cyclin-dependent kinase 2 (CDK2), transcript variant 1  | 08212-113 | 2,669 | 11,431 | 2.10 |
| KIF26B    | Kinesin-like protein KIF26B   | 08212-100 | 2,765 | 11,799 | 2.09 |

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|----------|--|-----------|--------|--------|------|
| VPS26A   | vacuolar protein sorting 26 homolog A ( <i>S. pombe</i> ) (VPS26A), transcript variant 1 | 08212-114 | 15,543 | 65,396 | 2.07 |
| SDS3     | Sin3 histone deacetylase corepressor complex component SDS3                              | 08212-100 | 6,428  | 26,750 | 2.06 |
| MCAT     | malonyl CoA:ACP acyltransferase (mitochondrial) (MCAT)                                   | 08212-113 | 600    | 2,483  | 2.05 |
| EIF4E    | eukaryotic translation initiation factor 4E (EIF4E)                                      | 08212-113 | 1,157  | 4,672  | 2.01 |
| RCP9     | calcitonin gene-related peptide-receptor component protein (RCP9)                        | 08212-100 | 1,613  | 6,398  | 1.99 |
| IP6K2    | Inositol hexakisphosphate kinase 2   | 08212-111 | 8,503  | 33,273 | 1.97 |
| SERPINB2 | serpin peptidase inhibitor, clade B (ovalbumin), member 2 (SERPINB2)                     | 08212-100 | 927    | 3,564  | 1.94 |
|          | Calpastatin  | 08212-111 | 3,920  | 14,995 | 1.94 |
| EFHD2    | EF-hand domain family, member D2 (EFHD2)   | 08212-100 | 7,910  | 30,217 | 1.93 |
| TWF1     | Twinfilin-1  | 08212-100 | 6,196  | 23,311 | 1.91 |
| TWF1     | twinfilin, actin-binding protein, homolog 1 ( <i>Drosophila</i> ) (TWF1)                 | 08212-100 | 13,879 | 51,766 | 1.90 |
| HMG2     | high-mobility group nucleosomal binding domain 2 (HMG2)                                  | 08212-113 | 10,899 | 40,565 | 1.90 |
| EXOSC1   | exosome component 1 (EXOSC1)   | 08212-100 | 2,427  | 8,952  | 1.88 |
| HMG3     | high mobility group nucleosomal binding domain 3 (HMG3), transcript variant 2            | 08212-113 | 8,135  | 29,769 | 1.87 |
| MYOG     | myogenin (myogenic factor 4) (MYOG)  | 08212-113 | 1,567  | 5,660  | 1.85 |
| ACTN2    | actinin, alpha 2 (ACTN2)   | 08212-111 | 7,536  | 27,149 | 1.85 |
| DYDC1    | DPY30 domain containing 1 (DYDC1)  | 08212-111 | 4,782  | 17,166 | 1.84 |
| BLVRA    | biliverdin reductase A (BLVRA)   | 08212-104 | 1,890  | 6,756  | 1.84 |
| C9orf58  | chromosome 9 open reading frame 58 (C9orf58)   | 08212-104 | 4,017  | 14,329 | 1.84 |

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|-----------|--|-----------|--------|--------|------|
| TWF1      | Prion protein (p27-30) (Creutzfeld-Jakob disease, Gerstmann-Strausler-Scheinker syndrome, fatal familial insomnia), transcript variant 2, mRNA | 08212-113 | 2,121  | 7,578  | 1.84 |
| TLE3      | transducin-like enhancer of split 3 (E(sp1) homolog, Drosophila) (TLE3)  | 08212-111 | 4,867  | 17,228 | 1.82 |
| ZNF706    | zinc finger protein 706 (ZNF706), transcript variant 2   | 08212-114 | 11,500 | 40,674 | 1.82 |
| CMTM1     | CKLF-like MARVEL transmembrane domain containing 1 (CMTM1), transcript variant 6, mRNA   | 08212-111 | 3,112  | 10,943 | 1.82 |
|           | Zinc finger FYVE domain-containing protein 19  | 08212-113 | 7,349  | 25,357 | 1.79 |
| SULT4A1   | sulfotransferase family 4A, member 1 (SULT4A1)   | 08212-113 | 4,000  | 13,794 | 1.79 |
| ZBTB44    | zinc finger and BTB domain containing 44 (ZBTB44)  | 08212-100 | 4,229  | 14,546 | 1.78 |
| BCMA      | TNFRSF17 / BCMA / CD269 Protein  | 08212-104 | 13,766 | 47,029 | 1.77 |
| PRKG2     | protein kinase, cGMP-dependent, type II (PRKG2)  | 08212-100 | 1,198  | 4,029  | 1.75 |
| ING1      | Inhibitor of growth protein 1  | 08212-111 | 4,416  | 14,662 | 1.73 |
| KLC1      | Kinesin light chain 1  | 08212-113 | 3,496  | 11,591 | 1.73 |
| FXYD7     | FXYD domain containing ion transport regulator 7 (FXD7)  | 08212-100 | 1,565  | 5,186  | 1.73 |
| FGF17     | FGF17 Recombinant Human Protein  | 08212-104 | 3,224  | 10,670 | 1.73 |
| LOC285141 | PREDICTED: Homo sapiens similar to CG14853-PB (LOC285141)  | 08212-113 | 1,285  | 4,255  | 1.73 |
| FGF16     | fibroblast growth factor 16 (FGF16)  | 08212-111 | 11,505 | 37,952 | 1.72 |
| CCDC46    | Coiled-coil domain-containing protein 46   | 08212-100 | 3,532  | 11,607 | 1.72 |
| PRDX3     | peroxiredoxin 3 (PRDX3)  | 08212-113 | 8,433  | 27,708 | 1.72 |
| CDC2L5    | cell division cycle 2-like 5 (cholinesterase-related cell division controller) (CDC2L5)  | 08212-111 | 8,679  | 28,395 | 1.71 |
| SCGB1D4   | Secretoglobin, family 1D, member 4 (SCGB1D4), mRNA   | 08212-111 | 6,698  | 21,824 | 1.70 |
| FAM108B1  | family with sequence similarity 108, member B1 (FAM108B1)  | 08212-113 | 2,216  | 7,229  | 1.70 |

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|           |  |           |        |        |      |
|-----------|--|-----------|--------|--------|------|
| PLEKHA1   | pleckstrin homology domain containing, family A (phosphoinositide binding specific) member 1 (PLEKHA1), transcript variant 2 | 08212-114 | 18,494 | 60,337 | 1.70 |
| BAZ2B     | bromodomain adjacent to zinc finger domain, 2B, mRNA   | 08212-100 | 4,400  | 14,149 | 1.69 |
| PGAM1     | phosphoglycerate mutase 1 (brain) (PGAM1)  | 08212-100 | 4,318  | 13,624 | 1.66 |
| C19orf44  | Uncharacterized protein C19orf44   | 08212-111 | 10,654 | 33,620 | 1.66 |
| SDS3      | Sin3 histone deacetylase corepressor complex component SDS3  | 08212-100 | 18,201 | 56,230 | 1.63 |
| RPS6KB1   | ribosomal protein S6 kinase, 70kDa, polypeptide 1 (RPS6KB1)  | 08212-113 | 4,935  | 15,225 | 1.63 |
| BIN1      | bridging integrator 1 (BIN1), transcript variant 6   | 08212-100 | 961    | 2,958  | 1.62 |
| BCMA      | TNFRSF17 / BCMA / CD269 Protein  | 08212-111 | 20,036 | 61,498 | 1.62 |
| LST1      | Leukocyte specific transcript 1 (LST1), transcript variant 4, mRNA   | 08212-100 | 4,175  | 12,708 | 1.60 |
| UPF3A     | UPF3 regulator of nonsense transcripts homolog A (yeast) (UPF3A)   | 08212-100 | 1,733  | 5,273  | 1.60 |
| CCDC43    | coiled-coil domain containing 43 (CCDC43)  | 08212-113 | 6,343  | 19,283 | 1.60 |
| CDK6      | cyclin-dependent kinase 6 (CDK6)   | 08212-111 | 3,789  | 11,406 | 1.59 |
| LST1      | Leukocyte specific transcript 1 (LST1), transcript variant 2, mRNA   | 08212-100 | 4,000  | 12,011 | 1.58 |
| ANP32E    | acidic (leucine-rich) nuclear phosphoprotein 32 family, member E (ANP32E)  | 08212-113 | 1,447  | 4,334  | 1.58 |
| MRGBP     | MRG-binding protein  | 08212-113 | 3,936  | 11,763 | 1.58 |
| PD1       | PD1 / PDCD1 Protein  | 08212-114 | 17,297 | 51,678 | 1.58 |
| LOC220906 | PREDICTED: Homo sapiens hypothetical protein LOC220906 (LOC220906)   | 08212-111 | 10,404 | 31,039 | 1.58 |
| CDC42EP1  | Cdc42 effector protein 1   | 08212-114 | 11,267 | 33,427 | 1.57 |

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|----------|--|-----------|--------|--------|------|
| FAM136A  | family with sequence similarity 136, member A (FAM136A)  | 08212-100 | 1,732  | 5,071  | 1.55 |
| CPLX2    | complexin 2 (CPLX2), transcript variant 2  | 08212-111 | 8,366  | 24,419 | 1.55 |
| STAT1    | signal transducer and activator of transcription 1, 91kDa (STAT1)                                    | 08212-111 | 11,214 | 32,654 | 1.54 |
| AKT3     | v-akt murine thymoma viral oncogene homolog 3 (protein kinase B, gamma) (AKT3), transcript variant 1 | 08212-111 | 5,061  | 14,692 | 1.54 |
| CPNE6    | Copine-6   | 08212-111 | 9,854  | 28,586 | 1.54 |
| RPS6KB1  | ribosomal protein S6 kinase, 70kDa, polypeptide 1 (RPS6KB1)  | 08212-113 | 2,160  | 6,183  | 1.52 |
| KCNA6    | potassium voltage-gated channel, shaker-related subfamily, member 6 (KCNA6)                          | 08212-113 | 3,307  | 9,451  | 1.52 |
|          | NFU1 iron-sulfur cluster scaffold homolog, mitochondrial   | 08212-100 | 747    | 2,128  | 1.51 |
| SMARCA5  | SWI/SNF-related matrix-associated actin-dependent regulator of chromatin subfamily A member 5        | 08212-111 | 7,978  | 22,416 | 1.49 |
| TG       | thyroglobulin  | 08212-113 | 198    | 557    | 1.49 |
| CCDC12   | coiled-coil domain containing 12 (CCDC12)  | 08212-111 | 10,431 | 29,108 | 1.48 |
| TTC32    | tetratricopeptide repeat domain 32 (TTC32)   | 08212-111 | 5,828  | 16,246 | 1.48 |
| SPAG11   | Sperm associated antigen 11 (SPAG11), transcript variant H, mRNA                                     | 08212-111 | 7,955  | 22,138 | 1.48 |
| AGGF1    | Angiogenic factor with G patch and FHA domains 1   | 08212-114 | 14,118 | 38,965 | 1.46 |
| CSNK1E   | casein kinase 1, epsilon (CSNK1E), transcript variant 2  | 08212-113 | 1,467  | 4,028  | 1.46 |
| CD40     | CD40 molecule, TNF receptor superfamily member 5 (CD40)  | 08212-113 | 1,470  | 4,023  | 1.45 |
| C10orf91 | chromosome 10 open reading frame 91 (C10orf91)   | 08212-113 | 5,207  | 14,211 | 1.45 |
| CAPSL    | calcyphosine-like (CAPSL), transcript variant 1  | 08212-113 | 1,616  | 4,385  | 1.44 |

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|----------|--|-----------|--------|--------|------|
|          | Kinesin light chain 3  | 08212-111 | 5,232  | 14,079 | 1.43 |
| TUFM     | Tu translation elongation factor, mitochondrial (TUFM)                         | 08212-100 | 5,452  | 14,616 | 1.42 |
| PRUNE2   | prune homolog 2 (Drosophila) (PRUNE2)  | 08212-111 | 13,649 | 35,916 | 1.40 |
| C19orf53 | chromosome 19 open reading frame 53 (C19orf53)                                 | 08212-113 | 3,795  | 9,914  | 1.38 |
| RAET1G   | Retinoic acid early transcript 1G protein                                      | 08212-113 | 717    | 1,869  | 1.38 |
| DDEFL1   | development and differentiation enhancing factor-like 1 (DDEFL1)               | 08212-111 | 6,111  | 15,903 | 1.38 |
| HTATIP2  | HIV-1 Tat interactive protein 2, 30kDa (HTATIP2)                               | 08212-111 | 7,535  | 19,571 | 1.38 |
| SPSB2    | splA/ryanodine receptor domain and SOCS box containing 2 (SPSB2)               | 08212-100 | 6,234  | 16,128 | 1.37 |
| CLDN5    | claudin 5 (transmembrane protein deleted in velocardiofacial syndrome) (CLDN5) | 08212-113 | 520    | 1,342  | 1.37 |
| KLH2     | kelch-like 2, Mayven (Drosophila) (KLHL2)                                      | 08212-113 | 2,169  | 5,589  | 1.37 |
| TRIP10   | thyroid hormone receptor interactor 10 (TRIP10)                                | 08212-111 | 8,519  | 21,910 | 1.36 |
| BAFF     | BAFF / TNFSF13B Protein  | 08212-111 | 25,413 | 65,301 | 1.36 |
| ASXL1    | additional sex combs like 1 (Drosophila) (ASXL1)                               | 08212-113 | 4,926  | 12,583 | 1.35 |
| C7orf41  | chromosome 7 open reading frame 41 (C7orf41)                                   | 08212-113 | 2,783  | 7,088  | 1.35 |
| TREM1    | TREM1 Protein  | 08212-111 | 17,024 | 43,190 | 1.34 |
| NVL      | nuclear VCP-like (NVL)   | 08212-113 | 5,275  | 13,334 | 1.34 |
| PVRL3    | poliovirus receptor-related 3 (PVRL3)  | 08212-104 | 3,040  | 7,663  | 1.33 |
| STAP1    | signal transducing adaptor family member 1 (STAP1)                             | 08212-111 | 6,179  | 15,575 | 1.33 |
| HMG2     | high-mobility group nucleosomal binding domain 2 (HMG2)                        | 08212-111 | 14,663 | 36,873 | 1.33 |
| PTK2B    | PTK2B protein tyrosine kinase 2 beta (PTK2B)                                   | 08212-111 | 7,235  | 18,142 | 1.33 |
| IL27Ra   | IL27Ra / TCCR / WSX1 Protein   | 08212-111 | 26,096 | 65,259 | 1.32 |
| GIPC1    | GIPC PDZ domain containing family, member 1 (GIPC1), transcript variant 1      | 08212-111 | 4,783  | 11,934 | 1.32 |

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|          |   |           |        |        |      |
|----------|---|-----------|--------|--------|------|
| HIP1R    | Huntingtin-interacting protein 1-related protein  | 08212-113 | 2,628  | 6,558  | 1.32 |
| SMS      | Spermine synthase   | 08212-113 | 805    | 2,004  | 1.32 |
| SEPP1    | selenoprotein P, plasma, 1 (SEPP1)  | 08212-113 | 1,419  | 3,530  | 1.32 |
| IFIT1    | Interferon-induced protein with tetratricopeptide repeats 1 (IFIT1), transcript variant 2, mRNA | 08212-111 | 9,729  | 24,143 | 1.31 |
| CAPS     | calcyphosine (CAPS), transcript variant 2   | 08212-113 | 2,263  | 5,609  | 1.31 |
| GFOD1    | Glucose-fructose oxidoreductase domain-containing protein 1                                     | 08212-111 | 6,246  | 15,449 | 1.30 |
| C8orf59  | chromosome 8 open reading frame 59 (C8orf59)  | 08212-114 | 21,025 | 51,988 | 1.30 |
| EPHA7    | Ephrin type-A receptor 7  | 08212-113 | 840    | 2,054  | 1.29 |
| MGC14376 | Hypothetical protein MGC14376 (MGC14376), transcript variant 2, mRNA                            | 08212-111 | 7,852  | 19,173 | 1.29 |
| TAS2R10  | Taste receptor, type 2, member 10, mRNA   | 08212-113 | 1,627  | 3,963  | 1.29 |
| GABPA    | GA binding protein transcription factor, alpha subunit 60kDa (GABPA)                            | 08212-100 | 1,004  | 2,429  | 1.28 |
| CLTA     | clathrin, light chain (Lca) (CLTA), transcript variant 1, mRNA.                                 | 08212-111 | 4,555  | 11,002 | 1.28 |
| TMEM35   | transmembrane protein 35 (TMEM35)   | 08212-113 | 6,256  | 15,089 | 1.27 |
| CCDC21   | coiled-coil domain containing 21 (CCDC21)   | 08212-113 | 3,657  | 8,804  | 1.27 |
| C4orf35  | chromosome 4 open reading frame 35 (C4orf35)  | 08212-111 | 14,164 | 33,958 | 1.26 |
| REEP5    | Receptor expression-enhancing protein 5   | 08212-113 | 659    | 1,581  | 1.26 |
|          | Protein quaking   | 08212-104 | 4,575  | 10,922 | 1.26 |
| NSL1     | Kinetochores-associated protein NSL1 homolog  | 08212-111 | 3,822  | 9,139  | 1.26 |
|          | Histone H2B type 1-H  | 08212-104 | 2,861  | 6,806  | 1.25 |
| DHX8     | ATP-dependent RNA helicase DHX8   | 08212-111 | 9,906  | 23,532 | 1.25 |
| CSRP1    | cysteine and glycine-rich protein 1 (CSRP1)   | 08212-113 | 2,759  | 6,556  | 1.25 |

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|                             |  |           |        |        |      |
|-----------------------------|--|-----------|--------|--------|------|
| SENP8                       | SUMO/sentrin specific peptidase family member 8 (SENP8)                  | 08212-111 | 6,154  | 14,593 | 1.24 |
| ZFYVE19                     | zinc finger, FYVE domain containing 19 (ZFYVE19)                         | 08212-113 | 4,755  | 11,264 | 1.24 |
| MAP2K6                      | Dual specificity mitogen-activated protein kinase kinase 6               | 08212-111 | 6,925  | 16,309 | 1.24 |
| APOA2                       | apolipoprotein A-II (APOA2)  | 08212-113 | 591    | 1,393  | 1.24 |
| C3orf35                     | Chromosome 3 open reading frame 35 (C3orf35), transcript variant A, mRNA | 08212-111 | 14,614 | 34,361 | 1.23 |
| WBP5                        | WW domain binding protein 5 (WBP5), transcript variant 1                 | 08212-111 | 13,550 | 31,704 | 1.23 |
| AMOT                        | angiomin (AMOT)  | 08212-111 | 22,659 | 52,794 | 1.22 |
| NECAB2                      | N-terminal EF-hand calcium-binding protein 2                             | 08212-111 | 7,645  | 17,752 | 1.21 |
| ITGB3BP                     | Centromere protein R   | 08212-111 | 6,996  | 16,205 | 1.21 |
| OKL38                       | Pregnancy-induced growth inhibitor (OKL38), transcript variant 1, mRNA   | 08212-113 | 2,731  | 6,348  | 1.21 |
| NDUFA9                      | NADH dehydrogenase (ubiquinone) 1 alpha subcomplex, 9, 39kDa (NDUFA9)    | 08212-113 | 1,254  | 2,913  | 1.21 |
| C1orf57                     | chromosome 1 open reading frame 57 (C1orf57)                             | 08212-113 | 6,416  | 14,882 | 1.21 |
| ARID3B                      | AT rich interactive domain 3B (BRIGHT-like) (ARID3B)                     | 08212-111 | 12,415 | 28,658 | 1.21 |
| PD-L1                       | PD-L1 Protein  | 08212-114 | 28,356 | 65,360 | 1.21 |
| SPRR2A                      | Small proline-rich protein 2A (SPRR2A), mRNA                             | 08212-111 | 10,572 | 24,156 | 1.20 |
| FGF12                       | fibroblast growth factor 12 (FGF12), transcript variant 2                | 08212-113 | 2,532  | 5,787  | 1.20 |
| TNFRSF10B / TRAILR2 / CD262 | TNFRSF10B / TRAILR2 / CD262 Protein                                      | 08212-114 | 28,387 | 64,866 | 1.20 |
| IGKC                        | Immunoglobulin kappa constant, mRNA                                      | 08212-111 | 26,359 | 60,081 | 1.19 |

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|         |  |           |        |        |      |
|---------|--|-----------|--------|--------|------|
| GLUD1   | Glutamate dehydrogenase 1, mRNA  | 08212-111 | 5,873  | 13,340 | 1.18 |
| TTPA    | tocopherol (alpha) transfer protein (TTPA)   | 08212-113 | 6,133  | 13,927 | 1.18 |
| DPYSL3  | Dihydropyrimidinase-related protein 3  | 08212-111 | 11,830 | 26,737 | 1.18 |
| RAB11B  | RAB11B, member RAS oncogene family (RAB11B)  | 08212-113 | 4,235  | 9,588  | 1.18 |
| OPN     | OPN / SPP1 Protein (His Tag)   | 08212-111 | 10,253 | 23,089 | 1.17 |
| CRYZL1  | crystallin, zeta (quinone reductase)-like 1 (CRYZL1)   | 08212-111 | 6,941  | 15,611 | 1.17 |
| ERGIC3  | ERGIC and golgi 3 (ERGIC3), transcript variant 2   | 08212-113 | 1,405  | 3,152  | 1.16 |
| RPS6KA3 | Ribosomal protein S6 kinase alpha-3  | 08212-111 | 11,503 | 25,668 | 1.16 |
| PSCD2   | pleckstrin homology, Sec7 and coiled-coil domains 2 (cytohesin-2) (PSCD2)                              | 08212-111 | 6,811  | 15,191 | 1.16 |
| NUDT6   | nudix (nucleoside diphosphate linked moiety X)-type motif 6 (NUDT6), transcript variant 1              | 08212-113 | 1,988  | 4,443  | 1.16 |
| PSRC1   | proline/serine-rich coiled-coil 1 (PSRC1), transcript variant 1  | 08212-113 | 9,884  | 22,047 | 1.16 |
| FTSJ2   | Putative ribosomal RNA methyltransferase 2   | 08212-113 | 2,173  | 4,834  | 1.16 |
| NUSAP1  | Nucleolar and spindle-associated protein 1   | 08212-111 | 21,102 | 46,801 | 1.15 |
| LIF     | leukemia inhibitory factor (cholinergic differentiation factor) (LIF)                                  | 08212-113 | 3,963  | 8,807  | 1.15 |
| MCFD2   | multiple coagulation factor deficiency 2 (MCFD2)   | 08212-113 | 2,298  | 5,052  | 1.14 |
| MLLT6   | myeloid/lymphoid or mixed-lineage leukemia (trithorax homolog, Drosophila); translocated to, 6 (MLLT6) | 08212-114 | 16,427 | 36,142 | 1.14 |
| AAA1    | AAA1 protein (AAA1), transcript variant IV, mRNA   | 08212-111 | 9,634  | 20,959 | 1.12 |
| IFIH1   | interferon induced with helicase C domain 1 (IFIH1)  | 08212-113 | 1,084  | 2,365  | 1.12 |
| CSNK1E  | casein kinase 1, epsilon (CSNK1E), transcript variant 2  | 08212-113 | 8,196  | 17,847 | 1.12 |
| COIL    | coilin (COIL)  | 08212-113 | 5,277  | 11,483 | 1.12 |

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|           |  |           |        |        |      |
|-----------|--|-----------|--------|--------|------|
| AKT3      | v-akt murine thymoma viral oncogene homolog 3 (protein kinase B, gamma) (AKT3), transcript variant 2 | 08212-104 | 1,921  | 4,163  | 1.12 |
| RPL14     | ribosomal protein L14 (RPL14)  | 08212-111 | 7,657  | 16,566 | 1.11 |
| CPNE3     | copine III (CPNE3)   | 08212-111 | 9,904  | 21,405 | 1.11 |
| FHL5      | four and a half LIM domains 5 (FHL5)   | 08212-113 | 16,808 | 36,364 | 1.11 |
| RPS6KA3   | ribosomal protein S6 kinase, 90kDa, polypeptide 3 (RPS6KA3)  | 08212-113 | 372    | 801    | 1.11 |
| PD-L1     | PD-L1 Protein  | 08212-111 | 30,137 | 64,921 | 1.10 |
| NKD2      | naked cuticle homolog 2 (Drosophila) (NKD2)  | 08212-111 | 6,695  | 14,370 | 1.10 |
| CPA1      | Carboxypeptidase A1  | 08212-113 | 1,348  | 2,902  | 1.10 |
| CD2BP2    | CD2 (cytoplasmic tail) binding protein 2 (CD2BP2)  | 08212-113 | 2,520  | 5,423  | 1.10 |
| ASPA      | aspartoacylase (Canavan disease) (ASPA)  | 08212-113 | 3,217  | 6,911  | 1.10 |
| RTN2      | reticulon 2 (RTN2)   | 08212-111 | 22,889 | 49,031 | 1.10 |
| C1orf211  | chromosome 1 open reading frame 211 (C1orf211)   | 08212-113 | 3,759  | 8,060  | 1.10 |
| RALGPS1   | Ral GEF with PH domain and SH3 binding motif 1 (RALGPS1)   | 08212-113 | 5,287  | 11,332 | 1.10 |
| ING1      | Inhibitor of growth protein 1  | 08212-113 | 3,907  | 8,354  | 1.10 |
| PRAP1     | proline-rich acidic protein 1 (PRAP1)  | 08212-114 | 24,327 | 52,176 | 1.10 |
| C8orf53   | chromosome 8 open reading frame 53 (C8orf53)   | 08212-100 | 878    | 1,868  | 1.09 |
| LOC202459 | similar to RIKEN cDNA 2310008M10 (LOC202459)   | 08212-113 | 1,143  | 2,437  | 1.09 |
| ITCH      | E3 ubiquitin-protein ligase Itchy homolog  | 08212-113 | 3,447  | 7,340  | 1.09 |
| LOC136242 | Peptidase S1 domain-containing protein LOC136242   | 08212-113 | 1,071  | 2,279  | 1.09 |
| IL2Ra     | IL2Ra / CD25 Protein   | 08212-100 | 18,999 | 40,285 | 1.08 |
| CCDC46    | Coiled-coil domain-containing protein 46   | 08212-104 | 4,528  | 9,621  | 1.08 |
| AFAP1L2   | actin filament associated protein 1-like 2 (AFAP1L2), transcript variant 1                           | 08212-111 | 9,098  | 19,327 | 1.08 |

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|          |  |           |        |        |      |
|----------|--|-----------|--------|--------|------|
| CCDC55   | coiled-coil domain containing 55 (CCDC55), transcript variant 1  | 08212-111 | 21,398 | 45,455 | 1.08 |
| PSPC1    | Paraspeckle component 1  | 08212-111 | 8,482  | 18,003 | 1.08 |
| CSNK2A2  | casein kinase 2, alpha prime polypeptide (CSNK2A2)   | 08212-113 | 1,190  | 2,517  | 1.08 |
| TLE4     | Transducin-like enhancer protein 4   | 08212-104 | 5,103  | 10,780 | 1.08 |
| MECR     | mitochondrial trans-2-enoyl-CoA reductase (MECR)   | 08212-104 | 2,983  | 6,289  | 1.08 |
| PLEKHA1  | pleckstrin homology domain containing, family A (phosphoinositide binding specific) member 1 (PLEKHA1), transcript variant 2 | 08212-111 | 9,963  | 21,067 | 1.08 |
| CHCHD2   | coiled-coil-helix-coiled-coil-helix domain containing 2 (CHCHD2)   | 08212-111 | 22,705 | 47,987 | 1.08 |
| DEFB108B | Defensin, beta 108B (DEFB108B), mRNA   | 08212-111 | 7,498  | 15,831 | 1.08 |
|          | Serine/threonine-protein kinase OSR1   | 08212-100 | 1,483  | 3,109  | 1.07 |
| IPMK     | inositol polyphosphate multikinase (IPMK)  | 08212-104 | 2,249  | 4,733  | 1.07 |
| BRE      | brain and reproductive organ-expressed (TNFRSF1A modulator) (BRE), transcript variant 3                                      | 08212-111 | 9,840  | 20,702 | 1.07 |
| E2F6     | Transcription factor E2F6  | 08212-113 | 2,971  | 6,239  | 1.07 |
| GKN2     | gastrokine 2 (GKN2)  | 08212-113 | 792    | 1,653  | 1.06 |
| STAP1    | signal transducing adaptor family member 1 (STAP1)   | 08212-113 | 3,839  | 8,012  | 1.06 |
| FAM37B   | Protein FAM73B   | 08212-113 | 1,447  | 3,016  | 1.06 |
| HSH2D    | hematopoietic SH2 domain containing (HSH2D)  | 08212-104 | 15,871 | 32,951 | 1.06 |
| THAP3    | THAP domain-containing protein 3   | 08212-111 | 11,832 | 24,664 | 1.06 |
| PDGFRB   | platelet-derived growth factor receptor, beta polypeptide (PDGFRB)   | 08212-113 | 491    | 1,022  | 1.06 |
| PRR16    | Proline-rich protein 16  | 08212-113 | 14,690 | 30,547 | 1.06 |

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|           |  |           |        |        |      |
|-----------|--|-----------|--------|--------|------|
| KLHL20    | kelch-like 20 (Drosophila) (KLHL20)  | 08212-111 | 6,533  | 13,519 | 1.05 |
| PPRC1     | Protein PPRC1  | 08212-111 | 13,112 | 27,109 | 1.05 |
| RAB26     | Ras-related protein Rab-26   | 08212-113 | 1,111  | 2,304  | 1.05 |
| NCK2      | NCK adaptor protein 2 (NCK2), transcript variant 3, mRNA                               | 08212-113 | 9,624  | 19,933 | 1.05 |
| CHAF1B    | chromatin assembly factor 1, subunit B (p60) (CHAF1B)                                  | 08212-104 | 17,879 | 36,912 | 1.04 |
| VAMP1     | vesicle-associated membrane protein 1 (synaptobrevin 1) (VAMP1)                        | 08212-104 | 2,385  | 4,906  | 1.04 |
| MTAP      | methylthioadenosine phosphorylase (MTAP), mRNA.  | 08212-111 | 29,147 | 60,075 | 1.04 |
| SNX9      | Sorting nexin-9  | 08212-111 | 7,051  | 14,531 | 1.04 |
| PD1       | PD1 / PDCD1 Protein  | 08212-111 | 16,284 | 33,487 | 1.04 |
| STX17     | syntaxin 17 (STX17)  | 08212-113 | 3,291  | 6,767  | 1.04 |
| LOC387921 | Similar to RIKEN cDNA 8030451K01 (LOC387921), transcript variant 2, mRNA               | 08212-113 | 725    | 1,484  | 1.04 |
| C21orf37  | Chromosome 21 open reading frame 37 (C21orf37), mRNA                                   | 08212-111 | 10,556 | 21,560 | 1.03 |
| HERC3     | Hect domain and RLD 3 (HERC3), mRNA  | 08212-111 | 7,516  | 15,332 | 1.03 |
| C9orf156  | chromosome 9 open reading frame 156 (C9orf156)   | 08212-111 | 8,914  | 18,184 | 1.03 |
| CMTM1     | CKLF-like MARVEL transmembrane domain containing 1 (CMTM1), transcript variant 5, mRNA | 08212-111 | 14,336 | 29,175 | 1.03 |
| NAT2      | N-acetyltransferase 2 (arylamine N-acetyltransferase) (NAT2)                           | 08212-113 | 1,497  | 3,057  | 1.03 |
| KIAA0562  | KIAA0562 (KIAA0562)  | 08212-113 | 4,620  | 9,423  | 1.03 |
| RBM15     | Putative RNA-binding protein 15  | 08212-113 | 1,029  | 2,095  | 1.03 |
| NAP1L1    | nucleosome assembly protein 1-like 1 (NAP1L1)  | 08212-100 | 925    | 1,877  | 1.02 |

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|          |   |           |        |        |      |
|----------|---|-----------|--------|--------|------|
| C10orf81 | PH domain-containing protein C10orf81   | 08212-104 | 23,794 | 48,382 | 1.02 |
| TSSK3    | testis-specific serine kinase 3 (TSSK3)   | 08212-111 | 8,324  | 16,898 | 1.02 |
| TPSD1    | Tryptase delta  | 08212-113 | 2,341  | 4,762  | 1.02 |
| LY6D     | Lymphocyte antigen 6D   | 08212-113 | 1,994  | 4,048  | 1.02 |
| CMYA3    | xin actin-binding repeat containing 2 (CMYA3)   | 08212-113 | 2,295  | 4,652  | 1.02 |
| RBPJ     | recombination signal binding protein for immunoglobulin kappa J region (RBPJ), transcript variant 4 | 08212-114 | 31,816 | 64,540 | 1.02 |
|          | A-kinase anchor protein 14  | 08212-100 | 1,078  | 2,175  | 1.01 |
| TLE3     | transducin-like enhancer of split 3 (E(sp1) homolog, Drosophila) (TLE3)                             | 08212-104 | 7,734  | 15,556 | 1.01 |
| PRPF4    | PRP4 pre-mRNA processing factor 4 homolog (yeast) (PRPF4)   | 08212-111 | 23,354 | 47,018 | 1.01 |
| TPRKB    | TP53RK binding protein (TPRKB)  | 08212-113 | 1,162  | 2,340  | 1.01 |
| CCM2     | Malcavernin   | 08212-113 | 9,267  | 18,622 | 1.01 |
| TESK2    | Dual specificity testis-specific protein kinase 2   | 08212-113 | 2,733  | 5,483  | 1.01 |
| STEAP4   | STEAP family member 4 (STEAP4)  | 08212-113 | 1,674  | 3,357  | 1.01 |
| C21orf49 | Chromosome 21 open reading frame 49 (C21orf49), mRNA  | 08212-113 | 4,266  | 8,554  | 1.01 |
| UNQ1887  | signal peptide peptidase 3 (UNQ1887)  | 08212-104 | 1,412  | 2,821  | 1.00 |
| CD4      | CD4 / LEU3 Protein  | 08212-111 | 31,655 | 63,331 | 1.00 |
| GOSR1    | Golgi SNAP receptor complex member 1  | 08212-111 | 9,132  | 18,234 | 1.00 |
| AKR1CL2  | aldo-keto reductase family 1, member C-like 2 (AKR1CL2)   | 08212-113 | 3,387  | 6,786  | 1.00 |
| TTPL     | Tetracycline transporter-like protein, mRNA   | 08212-113 | 1,366  | 2,735  | 1.00 |
| MALL     | mal, T-cell differentiation protein-like (MALL)   | 08212-113 | 1,884  | 3,771  | 1.00 |
| RAB43    | RAB43, member RAS oncogene family (RAB43)   | 08212-113 | 2,518  | 5,038  | 1.00 |

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