**Table S1**: List of up regulated gene from GSE148747

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Serial No** | **ID** | **P Value** | **logFC** | **Gene Symbol** | **Gene Title** |
| 1 | 18444 | 0.0020007 | 6.29 | FAM101A | Family with sequence similarity 101 |
| 2 | 13893 | 0.0001754 | 5.42 | SLAMF8 | SLAM family member 8 |
| 3 | 44509 | 0.0000478 | 5.38 | [IGH](mailto:IGH@) | Immunoglobulin heavy locus |
| 4 | 14242 | 0.0011613 | 5.27 | ANKRD1 | ankyrin repeat domain 1 (cardiac muscle) |
| 5 | 35069 | 0.0000189 | 5.24 | OXTR | Oxytocin receptor |
| 6 | 41953 | 0.0005541 | 5.06 | KCNMB1 | Potassium large conductance calcium-activated channel |
| 7 | 15601 | 0.001067 | 5.05 | KCNMB2 | Potassium large conductance calcium-activated channel |
| 8 | 35690 | 0.0042603 | 4.89 | CYBB | Cytochrome b-245 |
| 9 | 27328 | 0.0005716 | 4.75 | TNFSF4 | Tumor necrosis factor (ligand) superfamily |
| 10 | 26117 | 0.0036831 | 4.63 | ACTC1 | Actin |
| 11 | 39609 | 0.0084978 | 4.63 | ITGA11 | Integrin |
| 12 | 12708 | 0.0000245 | 4.61 | CMKLR1 | Chemokine-like receptor 1 |
| 13 | 43893 | 0.0085894 | 4.54 | MMP12 | Matrix metallopeptidase 12 (macrophage elastase) |
| 14 | 32537 | 0.0067105 | 4.53 | FNDC1 | Fibronectin type III domain containing 1 |
| 15 | 44738 | 0.0002926 | 4.47 | DUXAP10 | double homeobox A pseudogene 10 |
| 16 | 35064 | 0.003277 | 4.47 | FPR3 | Formyl peptide receptor 3 |
| 17 | 9543 | 0.0061477 | 4.39 | CCL3 | Chemokine (C-C motif) ligand 3 |
| 18 | 4054 | 0.0004057 | 4.38 | CSF1R | Colony stimulating factor 1 receptor |
| 19 | 39647 | 0.0075405 | 4.33 | FCGR3A | Fc fragment of IgG |
| 20 | 7896 | 0.0017488 | 4.29 | COL10A1 | Collagen |
| 21 | 32110 | 0.007047 | 4.28 | ITGB2 | Integrin |
| 22 | 8902 | 0.0008923 | 4.17 | CD48 | CD48 molecule |
| 23 | 14493 | 0.0014431 | 4.05 | JPH2 | Junctophilin 2 |
| 24 | 12088 | 0.0092106 | 4.04 | CCL3L3 | Chemokine (C-C motif) ligand 3-like 3 |
| 25 | 22873 | 0.0032642 | 4.01 | FAM19A5 | Family with sequence similarity 19 (chemokine (C-C motif)-like) |
| 26 | 20694 | 0.0048894 | 4.01 | TYROBP | TYRO protein tyrosine kinase binding protein |
| 27 | 21491 | 0.0004167 | 3.9 | PECAM1 | Platelet/endothelial cell adhesion molecule |
| 28 | 28644 | 0.001629 | 3.9 | MRC1L1 | Mannose receptor |
| 29 | 28406 | 0.0047901 | 3.89 | CD53 | CD53 molecule |
| 30 | 2842 | 0.00484 | 3.8 | GFRA1 | GDNF family receptor alpha 1 |
| 31 | 20108 | 0.002098 | 3.75 | KISS1 | Kiss-1 metastasis-suppressor |
| 32 | 9080 | 0.0022977 | 3.75 | CIITA | Class II |
| 33 | 29706 | 0.0058166 | 3.71 | IGSF6 | Immunoglobulin superfamily |
| 34 | 16143 | 0.00439 | 3.67 | TAGLN | Transgelin |
| 35 | 15184 | 0.0058569 | 3.63 | NRXN3 | Neurexin 3 |
| **Serial No** | **ID** | **P Value** | **logFC** | **Gene Symbol** | **Gene title** |
| 36 | 28629 | 0.0039083 | 3.51 | RNASE6 | Ribonuclease |
| 37 | 14697 | 0.0042867 | 3.44 | PTPRB | Protein tyrosine phosphatase |
| 38 | 35795 | 0.0003417 | 3.37 | SLC11A1 | Solute carrier family 11 (proton-coupled divalent metal ion transporters) |
| 39 | 40076 | 0.0032488 | 3.36 | SORBS2 | Sorbin and SH3 domain containing 2 |
| 40 | 4780 | 0.0018078 | 3.33 | HEYL | Hairy/enhancer-of-split related with YRPW motif-like |
| 41 | 1166 | 0.0041581 | 3.33 | ITGAM | Integrin |
| 42 | 3965 | 0.0048279 | 3.3 | PODXL | Podocalyxin-like |
| 43 | 11761 | 0.0021742 | 3.27 | GMFG | Glia maturation factor |
| 44 | 31894 | 0.0027773 | 3.27 | TDO2 | Tryptophan 2 |
| 45 | 33297 | 0.0009155 | 3.22 | PRKCB | Protein kinase C |
| 46 | 7963 | 0.0062027 | 3.21 | LILRB3 | Leukocyte immunoglobulin-like receptor |
| 47 | 3676 | 0.0020057 | 3.16 | CD163L1 | CD163 molecule-like 1 |
| 48 | 19782 | 0.0042862 | 3.15 | PTPRC | Protein tyrosine phosphatase |
| 49 | 4666 | 0.0028637 | 3.11 | DYSF | Dysferlin |
| 50 | 22163 | 0.0024492 | 3.1 | KMO | Kynurenine 3-monooxygenase (kynurenine 3-hydroxylase) |
| 51 | 36966 | 0.0018708 | 3.04 | RUNX3 | Runt-related transcription factor 3 |
| 52 | 21523 | 0.0022891 | 3 | ST6GALNAC5 | ST6 (alpha-N-acetyl-neuraminyl-2 |
| 53 | 38894 | 0.0080595 | 2.97 | CXCR4 | Chemokine (C-X-C motif) receptor 4 |
| 54 | 27805 | 0.005914 | 2.95 | MSR1 | Macrophage scavenger receptor 1 |
| 55 | 10251 | 0.0088254 | 2.91 | HLA-DRB1 | Major histocompatibility complex |
| 56 | 31350 | 0.0020135 | 2.88 | INHBB | Inhibin |
| 57 | 9432 | 0.0024402 | 2.85 | MEGF6 | Multiple EGF-like-domains 6 |
| 58 | 44609 | 0.0024661 | 2.78 | LIMS2 | LIM and senescent cell antigen-like domains 2 |
| 59 | 31687 | 0.0086988 | 2.76 | RGS1 | Regulator of G-protein signaling 1 |
| 60 | 33972 | 0.0017664 | 2.68 | GPR65 | G protein-coupled receptor 65 |
| 61 | 14933 | 0.0068428 | 2.65 | FUCA1 | Fucosidase |
| 62 | 2855 | 0.0023223 | 2.64 | KCTD4 | Potassium channel tetramerisation domain containing 4 |
| 63 | 10450 | 0.0028615 | 2.62 | ACP5 | Acid phosphatase 5 |
| 64 | 22568 | 0.0086905 | 2.5 | FGD5 | Fyve |
| 65 | 14332 | 0.0093114 | 2.45 | TPM1 | Tropomyosin 1 (alpha) |
| 66 | 8646 | 0.0050184 | 2.37 | MCAM | Melanoma cell adhesion molecule |
| 67 | 38220 | 0.0098226 | 2.37 | C14orf37 | Chromosome 14 open reading frame 37 |
| 68 | 40243 | 0.0096059 | 2.36 | NLRC4 | NLR family |
| 69 | 17528 | 0.0031616 | 2.32 | ZCCHC5 | Zinc finger |
| 70 | 28936 | 0.004951 | 2.21 | MICAL2 | Microtubule associated monoxygenase |
| 71 | 30297 | 0.003001 | 2.18 | IFI30 | Interferon |
| 72 | 23594 | 0.0094464 | 2.16 | SELPLG | Selectin P ligand |
| **Serial No** | **ID** | **P Value** | **logFC** | **Gene Symbol** | **Gene title** |
| 73 | 28694 | 0.0088822 | 2.03 | LTBP2 | Latent transforming growth factor beta binding protein 2 |
| 74 | 14414 | 0.0064157 | 1.91 | SPATA8 | Spermatogenesis associated 8 |
| 75 | 9600 | 0.008327 | 1.9 | IL10 | Interleukin 10 |
| 76 | 11972 | 0.0086432 | 1.75 | FGF1 | Fibroblast growth factor 1 (acidic) |

**Table S2**: List of down regulated gene from GSE148747

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Serial No.** | **ID** | **P Value** | **logFC** | **Gene Symbol** | **Gene title** |
|  | 10095 | 0.0184733 | -1.638 | GCHFR | GTP cyclohydrolase I feedback regulator |
| 1 | 42781 | 0.0202829 | -1.644 | STAT3 | Signal transducer and activator of transcription 3 (acute-phase response factor) |
| 2 | 12129 | 0.0085633 | -1.86 | Synleurin | Synleurin |
| 3 | 30384 | 0.0095157 | -1.94 | RASGEF1A | Rasgef domain family |
| 4 | 23502 | 0.0086101 | -1.95 | SMAD3 | SMAD family member 3 |
| 5 | 39392 | 0.0093845 | -2.14 | IGF2BP3 | Insulin-like growth factor 2 mrna binding protein 3 |
| 6 | 35689 | 0.0079138 | -2.17 | SLC27A2 | Solute carrier family 27 (fatty acid transporter) |
| 7 | 17556 | 0.0094634 | -2.17 | RHOF | Ras homolog gene family |
| 8 | 11828 | 0.0053909 | -2.23 | RGS20 | Regulator of G-protein signaling 20 |
| 9 | 12826 | 0.0093265 | -2.3 | C9orf68 | Chromosome 9 open reading frame 68 |
| 10 | 41571 | 0.0045149 | -2.36 | DKFZP564O0823 | DKFZP564O0823 protein |
| 11 | 16541 | 0.0026805 | -2.38 | KIAA1804 | Mixed lineage kinase 4 |
| 12 | 18900 | 0.0074609 | -2.42 | PRSS3 | Protease |
| 13 | 13620 | 0.0076314 | -2.42 | TMEM90A | Transmembrane protein 90A |
| 14 | 14853 | 0.0010926 | -2.46 | MCHR1 | Melanin-concentrating hormone receptor 1 |
| 15 | 35755 | 0.0095534 | -2.46 | CNTNAP2 | Contactin associated protein-like 2 |
| 16 | 27711 | 0.0067558 | -2.48 | LCE2C | Late cornified envelope 2C |
| 17 | 42591 | 0.0018274 | -2.51 | IGFBP2 | Insulin-like growth factor binding protein 2 |
| **Serial No.** | **ID** | **P Value** | **logFC** | **Gene Symbol** | **Gene title** |
| 18 | 11008 | 0.0004676 | -2.59 | EPB41 | Erythrocyte membrane protein band 4.1 (elliptocytosis 1 |
| 19 | 22840 | 0.0083849 | -2.6 | FRAS1 | Fraser syndrome 1 |
| 20 | 15542 | 0.004764 | -2.61 | PRSS2 | Protease |
| 21 | 32181 | 0.0068091 | -2.64 | CMTM8 | CKLF-like MARVEL transmembrane domain containing 8 |
| 22 | 8235 | 0.0085464 | -2.66 | PDE1A | Phosphodiesterase 1A |
| 23 | 37540 | 0.0064638 | -2.68 | NSUN7 | NOL1/NOP2/Sun domain family |
| 24 | 27788 | 0.0016792 | -2.69 | SPOCK3 | Sparc/osteonectin |
| 25 | 13294 | 0.0058729 | -2.7 | NLRP7 | NLR family |
| 26 | 5618 | 0.0011989 | -2.72 | EFCAB1 | EF-hand calcium binding domain 1 |
| 27 | 19659 | 0.0038081 | -2.75 | CSAG1 | Chondrosarcoma associated gene 1 |
| 28 | 34931 | 0.0004351 | -2.77 | BCO2 | Beta-carotene oxygenase 2 |
| 29 | 1588 | 0.0063379 | -2.77 | FAM59A | Family with sequence similarity 59 |
| 30 | 17838 | 0.0014638 | -2.8 | EVI1 | Ecotropic viral integration site 1 |
| 31 | 2613 | 0.0092401 | -2.8 | GPR115 | G protein-coupled receptor 115 |
| 32 | 39761 | 0.0012229 | -2.86 | P2RY1 | Purinergic receptor P2Y |
| 33 | 17290 | 0.0077798 | -2.87 | MCOLN3 | Mucolipin 3 |
| 34 | 13247 | 0.0094448 | -2.87 | ANKRD29 | Ankyrin repeat domain 29 |
| 35 | 14134 | 0.0037823 | -2.88 | MBNL3 | Muscleblind-like 3 (Drosophila) |
| 36 | 8193 | 0.0032315 | -2.94 | CNTNAP3 | Similar to cell recognition molecule CASPR3 |
| 37 | 25913 | 0.0036957 | -2.94 | SEPP1 | Selenoprotein P |
| 38 | 13477 | 0.0069691 | -2.94 | KIAA1543 | Kiaa1543 |
| 39 | 32907 | 0.0032092 | -2.98 | SMOC1 | SPARC related modular calcium binding 1 |
| 40 | 43398 | 0.0041367 | -2.99 | GPRC5A | G protein-coupled receptor |
| 41 | 23837 | 0.0026947 | -3 | MATN2 | Matrilin 2 |
| 42 | 21423 | 0.0074074 | -3 | NRTN | Neurturin |
| 43 | 25848 | 0.0009321 | -3.01 | B3GAT1 | Beta-1 |
| 44 | 29722 | 0.0033029 | -3.04 | FAM55A | Family with sequence similarity 55 |
| 45 | 30076 | 0.0044174 | -3.06 | EPHA4 | EPH receptor A4 |
| 46 | 12780 | 0.0010088 | -3.07 | IL18R1 | Interleukin 18 receptor 1 |
| 47 | 38171 | 0.003897 | -3.08 | TFPI2 | Tissue factor pathway inhibitor 2 |
| 48 | 33418 | 0.0034212 | -3.12 | CDH7 | Cadherin 7 |
| 49 | 18011 | 0.0017524 | -3.13 | KLHL13 | Kelch-like 13 (Drosophila) |
| 50 | 12172 | 0.003645 | -3.2 | TTC39A | Tetratricopeptide repeat domain 39A |
| 51 | 24279 | 0.0040675 | -3.22 | FLRT3 | Fibronectin leucine rich transmembrane protein 3 |
| 52 | 28237 | 0.009053 | -3.22 | AKR1B10 | Aldo-keto reductase family 1 |
| 53 | 17797 | 0.004425 | -3.24 | CXADR | Coxsackie virus and adenovirus receptor |
| 54 | 13845 | 0.0088194 | -3.29 | AKR1C1 | Aldo-keto reductase family 1 |
| **Serial No.** | **ID** | **P Value** | **logFC** | **Gene Symbol** | **Gene title** |
| 55 | 35486 | 0.0092782 | -3.36 | CPA6 | Carboxypeptidase A6 |
| 56 | 3056 | 0.002141 | -3.4 | BTBD11 | BTB (POZ) domain containing 11 |
| 57 | 21599 | 0.0084329 | -3.46 | CA9 | Carbonic anhydrase IX |
| 58 | 541 | 0.0003209 | -3.47 | PPP4R4 | Protein phosphatase 4 |
| 59 | 32911 | 0.0061635 | -3.48 | RXFP1 | Relaxin/insulin-like family peptide receptor 1 |
| 60 | 11872 | 0.0036382 | -3.58 | TMEM156 | Transmembrane protein 156 |
| 61 | 39539 | 0.0025192 | -3.59 | SLC2A12 | Solute carrier family 2 (facilitated glucose transporter) |
| 62 | 32084 | 0.0000607 | -3.65 | C10orf82 | Chromosome 10 open reading frame 82 |
| 63 | 22196 | 0.0017793 | -3.66 | C10orf116 | Chromosome 10 open reading frame 116 |
| 64 | 33255 | 0.0096004 | -3.85 | AQP3 | Aquaporin 3 (Gill blood group) |
| 65 | 35009 | 0.0019334 | -4.21 | SLC6A15 | Solute carrier family 6 (neutral amino acid transporter) |
| 66 | 44018 | 0.000694 | -4.31 | PPARG | Peroxisome proliferator-activated receptor gamma |
| 67 | 21986 | 0.0032162 | -4.33 | LPAR3 | Lysophosphatidic acid receptor 3 |
| 68 | 21825 | 0.0074144 | -4.37 | VSIG2 | V-set and immunoglobulin domain containing 2 |
| 69 | 39184 | 0.0024592 | -4.47 | COL4A6 | Collagen |
| 70 | 5959 | 0.0003276 | -4.63 | ANXA10 | Annexin A10 |
| 71 | 34761 | 0.0011939 | -4.66 | RAB38 | Rab38 |
| 72 | 10792 | 0.0001869 | -4.74 | HHIPL2 | HHIP-like 2 |
| 73 | 40043 | 0.0001113 | -4.75 | DHRS3 | Dehydrogenase/reductase (SDR family) member 3 |
| 74 | 19417 | 0.0001845 | -4.93 | SHANK2 | SH3 and multiple ankyrin repeat domains 2 |
| 75 | 33803 | 0.0000177 | -5.12 | SNCA | Synuclein |
| 76 | 1148 | 0.0000345 | -5.44 | RARRES1 | Retinoic acid receptor responder (tazarotene induced) 1 |