Supplementary Table 1: The DEGs between the ANXA9 high and ANXA9 low expression group.

|  |  |  |  |
| --- | --- | --- | --- |
| gene | GENE | cor | p.value |
| PRSS22 | ANXA9 | 0.431197934 | 0 |
| MMP24OS | ANXA9 | 0.433213262 | 0 |
| RGL2 | ANXA9 | 0.436684122 | 0 |
| CXXC5 | ANXA9 | 0.423048259 | 0 |
| QPRT | ANXA9 | 0.411441275 | 0 |
| PALM3 | ANXA9 | 0.476397589 | 0 |
| ACSF2 | ANXA9 | 0.417679224 | 0 |
| CHMP4B | ANXA9 | 0.380926504 | 2.23E-13 |
| ZSWIM1 | ANXA9 | 0.428586673 | 0 |
| PXMP4 | ANXA9 | 0.362485073 | 3.89E-12 |
| EPB41L1 | ANXA9 | 0.415731082 | 0 |
| ESPN | ANXA9 | 0.394141177 | 2.05E-14 |
| ADGRG1 | ANXA9 | 0.402348723 | 2.81E-15 |
| TOM1 | ANXA9 | 0.31930611 | 1.28E-09 |
| LMTK3 | ANXA9 | 0.357862154 | 7.61E-12 |
| CTSH | ANXA9 | 0.416614959 | 0 |
| TDRKH | ANXA9 | 0.362452609 | 3.91E-12 |
| PPP1R3D | ANXA9 | 0.336985899 | 1.34E-10 |
| RAB17 | ANXA9 | 0.371982441 | 9.33E-13 |
| EPS8L2 | ANXA9 | 0.325771028 | 5.71E-10 |
| TACSTD2 | ANXA9 | 0.346001666 | 4.00E-11 |
| DDX27 | ANXA9 | 0.37780033 | 3.72E-13 |
| MAB21L4 | ANXA9 | 0.444810366 | 0 |
| METTL7B | ANXA9 | 0.380033594 | 2.59E-13 |
| SGCB | ANXA9 | -0.336297938 | 1.47E-10 |
| LZTS3 | ANXA9 | 0.348693099 | 2.77E-11 |
| FBXO2 | ANXA9 | 0.411705789 | 0 |
| OXCT1 | ANXA9 | -0.364854405 | 2.74E-12 |
| MOSPD3 | ANXA9 | 0.354319308 | 1.26E-11 |
| RTF2 | ANXA9 | 0.357221901 | 8.35E-12 |
| SFTA2 | ANXA9 | 0.433641839 | 1.96E-17 |
| LRRC75B | ANXA9 | 0.370329866 | 1.20E-12 |
| ACOT8 | ANXA9 | 0.394757435 | 1.81E-14 |
| NFS1 | ANXA9 | 0.338348272 | 1.12E-10 |
| SLC16A13 | ANXA9 | 0.314536113 | 2.30E-09 |
| IFT52 | ANXA9 | 0.36672689 | 2.08E-12 |
| PABPC1L | ANXA9 | 0.397462984 | 1.01E-14 |
| SEC14L4 | ANXA9 | 0.373698881 | 5.22E-13 |
| TMEM189 | ANXA9 | 0.363564583 | 3.32E-12 |
| CHKA | ANXA9 | 0.428407131 | 0 |
| SPAG4 | ANXA9 | 0.334209494 | 1.93E-10 |
| SLC25A35 | ANXA9 | 0.406889777 | 2.81E-16 |
| CPNE1 | ANXA9 | 0.34590399 | 4.06E-11 |
| EEF2 | ANXA9 | -0.312128389 | 3.08E-09 |
| COMMD7 | ANXA9 | 0.334390729 | 1.89E-10 |
| CCDC24 | ANXA9 | 0.404605417 | 1.24E-15 |
| CITED4 | ANXA9 | 0.326987734 | 4.90E-10 |
| RPL39L | ANXA9 | 0.313423292 | 2.63E-09 |
| ARHGEF19 | ANXA9 | 0.377296992 | 4.04E-13 |
| MINDY1 | ANXA9 | 0.386449673 | 8.71E-14 |
| C2orf68 | ANXA9 | 0.355942524 | 1.00E-11 |
| RTKN | ANXA9 | 0.331340494 | 2.80E-10 |
| SERPINA4 | ANXA9 | 0.366820934 | 1.48E-12 |
| ERGIC3 | ANXA9 | 0.333533953 | 2.11E-10 |
| MUC20 | ANXA9 | 0.39302012 | 2.44E-14 |
| DYNLRB1 | ANXA9 | 0.305866727 | 6.49E-09 |
| EEF1A1 | ANXA9 | -0.328484763 | 4.05E-10 |
| TMEM184A | ANXA9 | 0.366027072 | 2.31E-12 |
| NECTIN4 | ANXA9 | 0.332533205 | 2.40E-10 |
| SDF2 | ANXA9 | 0.322184426 | 8.97E-10 |
| MCUR1 | ANXA9 | 0.313075501 | 2.75E-09 |
| PAQR7 | ANXA9 | 0.347131989 | 3.43E-11 |
| VWA1 | ANXA9 | 0.31779412 | 1.55E-09 |
| PPDPF | ANXA9 | 0.318145017 | 1.48E-09 |
| VTCN1 | ANXA9 | 0.397535496 | 1.16E-14 |
| FAM222B | ANXA9 | 0.341418268 | 7.44E-11 |
| COMT | ANXA9 | 0.316537045 | 1.80E-09 |
| GTF2IRD1 | ANXA9 | 0.313132807 | 2.73E-09 |
| ENPP5 | ANXA9 | 0.311248747 | 3.42E-09 |
| KIF3B | ANXA9 | 0.337435036 | 1.26E-10 |
| SHROOM1 | ANXA9 | 0.348677573 | 2.77E-11 |
| NUDT14 | ANXA9 | 0.329144212 | 3.72E-10 |
| PLA2G16 | ANXA9 | 0.310073821 | 3.94E-09 |
| DNAJB2 | ANXA9 | 0.361798806 | 4.31E-12 |
| SCAND1 | ANXA9 | 0.309781078 | 4.08E-09 |
| SLC35C2 | ANXA9 | 0.348518074 | 2.83E-11 |
| SMUG1 | ANXA9 | 0.320044039 | 1.17E-09 |
| H2AFJ | ANXA9 | 0.301367736 | 1.10E-08 |
| EDEM2 | ANXA9 | 0.316734654 | 1.76E-09 |
| SEPT11 | ANXA9 | -0.314909312 | 2.20E-09 |
| MCUB | ANXA9 | -0.3069835 | 5.69E-09 |
| DCDC2 | ANXA9 | 0.314014304 | 2.00E-09 |
| ILDR1 | ANXA9 | 0.303014948 | 9.06E-09 |
| GGT7 | ANXA9 | 0.348939546 | 2.67E-11 |
| PDE4B | ANXA9 | -0.317910709 | 1.52E-09 |
| CDK10 | ANXA9 | 0.332471382 | 2.42E-10 |
| SYS1 | ANXA9 | 0.300558386 | 1.20E-08 |
| BLCAP | ANXA9 | 0.332721781 | 2.34E-10 |
| ROMO1 | ANXA9 | 0.301227998 | 1.12E-08 |
| POR | ANXA9 | 0.302974297 | 9.10E-09 |
| CGN | ANXA9 | 0.304084577 | 8.00E-09 |
| DNTTIP1 | ANXA9 | 0.309839796 | 4.05E-09 |
| SNX21 | ANXA9 | 0.340683445 | 8.21E-11 |
| RAE1 | ANXA9 | 0.305579629 | 6.71E-09 |
| IRF2BP2 | ANXA9 | 0.3063105 | 6.16E-09 |
| STIM2 | ANXA9 | -0.301516507 | 1.08E-08 |
| EIF6 | ANXA9 | 0.303800867 | 8.27E-09 |
| PCIF1 | ANXA9 | 0.323131537 | 7.97E-10 |
| SMIM29 | ANXA9 | 0.308635228 | 4.68E-09 |
| VGLL1 | ANXA9 | 0.429930809 | 3.92E-17 |
| ALDH3B2 | ANXA9 | 0.500359225 | 1.64E-23 |
| RNF5 | ANXA9 | 0.301096165 | 1.13E-08 |
| FGFR3 | ANXA9 | 0.34962412 | 2.43E-11 |
| TNNC1 | ANXA9 | 0.309724053 | 4.11E-09 |
| H1F0 | ANXA9 | 0.319199402 | 1.30E-09 |
| PRAP1 | ANXA9 | 0.336112468 | 1.51E-10 |
| FAS | ANXA9 | -0.353236411 | 1.47E-11 |
| LPIN3 | ANXA9 | 0.3115254 | 3.31E-09 |
| GLB1L | ANXA9 | 0.356530552 | 9.21E-12 |
| PLEKHB1 | ANXA9 | 0.305048344 | 7.14E-09 |
| SPATA2 | ANXA9 | 0.318786681 | 1.37E-09 |
| ZKSCAN1 | ANXA9 | 0.320695583 | 1.08E-09 |
| DGAT2 | ANXA9 | 0.308821263 | 4.57E-09 |
| KIF12 | ANXA9 | 0.316458848 | 1.82E-09 |
| TMEM185B | ANXA9 | 0.301094753 | 1.13E-08 |
| RASSF10 | ANXA9 | 0.365648002 | 1.76E-12 |
| YWHAB | ANXA9 | 0.321364349 | 9.93E-10 |
| CLIC3 | ANXA9 | 0.302573433 | 9.54E-09 |
| CRYBG2 | ANXA9 | 0.327267492 | 4.73E-10 |
| AIG1 | ANXA9 | 0.321795418 | 9.42E-10 |
| CYP4F3 | ANXA9 | 0.30361088 | 8.45E-09 |
| NEURL3 | ANXA9 | 0.396891047 | 1.14E-14 |
| USP21 | ANXA9 | 0.314445495 | 2.33E-09 |
| POFUT1 | ANXA9 | 0.310832357 | 3.60E-09 |
| PIGM | ANXA9 | 0.332431578 | 2.43E-10 |
| FOXO1 | ANXA9 | -0.302819597 | 9.27E-09 |
| CAMK2N1 | ANXA9 | 0.321796547 | 9.41E-10 |
| CAPS | ANXA9 | 0.427952913 | 0 |
| TMEM9 | ANXA9 | 0.329560885 | 3.52E-10 |
| AGFG2 | ANXA9 | 0.336629639 | 1.41E-10 |
| NOL4L | ANXA9 | 0.315569325 | 2.03E-09 |
| LHFPL2 | ANXA9 | -0.301313535 | 1.10E-08 |
| CNOT6L | ANXA9 | -0.300560645 | 1.20E-08 |
| RHOD | ANXA9 | 0.304458058 | 7.66E-09 |
| GAL3ST1 | ANXA9 | 0.35506627 | 1.13E-11 |
| PLEKHG6 | ANXA9 | 0.320510396 | 1.10E-09 |
| EPHX3 | ANXA9 | 0.318150945 | 1.48E-09 |
| CIB2 | ANXA9 | 0.319075472 | 1.32E-09 |
| DAPL1 | ANXA9 | 0.390154398 | 3.90E-14 |
| RGN | ANXA9 | 0.351982441 | 1.75E-11 |
| SGK2 | ANXA9 | 0.33119624 | 2.86E-10 |
| TTC39A | ANXA9 | 0.304890256 | 7.28E-09 |
| TMEM79 | ANXA9 | 0.391313394 | 3.58E-14 |
| PROSER2 | ANXA9 | 0.316493571 | 1.81E-09 |
| TM7SF2 | ANXA9 | 0.330186176 | 3.25E-10 |
| COL9A3 | ANXA9 | 0.393089898 | 2.53E-14 |
| TOX | ANXA9 | -0.332622694 | 2.37E-10 |
| GID8 | ANXA9 | 0.380384773 | 2.44E-13 |
| PPL | ANXA9 | 0.432367496 | 0 |
| TPPP3 | ANXA9 | 0.319082248 | 1.32E-09 |
| PROC | ANXA9 | 0.375770913 | 3.79E-13 |
| CD55 | ANXA9 | -0.309435826 | 4.25E-09 |
| VSIG10L | ANXA9 | 0.309184581 | 4.38E-09 |
| RBBP8NL | ANXA9 | 0.334516352 | 1.86E-10 |
| GPRIN3 | ANXA9 | -0.332626646 | 2.37E-10 |
| CYSRT1 | ANXA9 | 0.375370023 | 5.49E-13 |
| TNFRSF19 | ANXA9 | 0.370334665 | 1.20E-12 |
| PTGER4 | ANXA9 | -0.309498779 | 4.22E-09 |
| LGALS7B | ANXA9 | 0.310338079 | 3.15E-09 |
| TNNC2 | ANXA9 | 0.351815038 | 1.79E-11 |
| DNMT3B | ANXA9 | 0.333021582 | 2.25E-10 |
| NCCRP1 | ANXA9 | 0.324122824 | 5.59E-10 |
| UPK3A | ANXA9 | 0.394839174 | 1.81E-14 |
| CLDN9 | ANXA9 | 0.442539682 | 3.61E-18 |
| MTG2 | ANXA9 | 0.305999972 | 6.39E-09 |
| ASPSCR1 | ANXA9 | 0.300307423 | 1.24E-08 |
| F10 | ANXA9 | 0.301199769 | 1.12E-08 |
| IL20RB | ANXA9 | 0.31919799 | 1.30E-09 |
| KLC4 | ANXA9 | 0.305846966 | 6.50E-09 |
| GABRA3 | ANXA9 | 0.305107674 | 5.93E-09 |
| GRHL3 | ANXA9 | 0.334027129 | 1.98E-10 |
| CYP2W1 | ANXA9 | 0.336459977 | 1.44E-10 |
| DEFB1 | ANXA9 | 0.347862663 | 2.31E-11 |
| JAK2 | ANXA9 | -0.330667777 | 3.06E-10 |
| CST6 | ANXA9 | 0.337662492 | 9.38E-11 |
| LSM14B | ANXA9 | 0.303570511 | 8.49E-09 |
| NKD1 | ANXA9 | 0.310982258 | 3.53E-09 |
| DLX3 | ANXA9 | 0.385876583 | 7.76E-14 |
| KLK6 | ANXA9 | 0.349735468 | 1.77E-11 |