

Supplementary Table S2

| Terms | HR[exp(coef | coef | 95% CI low | 95% CI upp | Z | P value |
|-----------|-------------|----------|------------|------------|----------|----------|
| IL18BP | 0.672207 | -0.39719 | -0.66654 | -0.12784 | -2.89018 | 0.00385 |
| IFI30 | 0.672322 | -0.39702 | -0.62756 | -0.16647 | -3.37521 | 0.000738 |
| NLRC3 | 0.67769 | -0.38907 | -0.59701 | -0.18112 | -3.66701 | 0.000245 |
| CXorf65 | 0.680511 | -0.38491 | -0.63633 | -0.13349 | -3.00058 | 0.002695 |
| SNAI3 | 0.684912 | -0.37846 | -0.58634 | -0.17059 | -3.56837 | 0.000359 |
| CLNK | 0.688094 | -0.37383 | -0.65919 | -0.08847 | -2.56762 | 0.01024 |
| TTC24 | 0.689866 | -0.37126 | -0.57349 | -0.16903 | -3.5982 | 0.00032 |
| PIM2 | 0.689956 | -0.37113 | -0.63693 | -0.10532 | -2.73659 | 0.006208 |
| IDO2 | 0.689968 | -0.37111 | -0.57528 | -0.16694 | -3.56262 | 0.000367 |
| TMC8 | 0.696164 | -0.36217 | -0.56291 | -0.16143 | -3.53616 | 0.000406 |
| CD6 | 0.697532 | -0.36021 | -0.53307 | -0.18734 | -4.08406 | 4.43E-05 |
| LOC100121 | 0.697939 | -0.35962 | -0.617 | -0.10224 | -2.73856 | 0.006171 |
| FGD3 | 0.70417 | -0.35074 | -0.58747 | -0.114 | -2.90382 | 0.003686 |
| PKD2L1 | 0.70472 | -0.34996 | -0.56751 | -0.1324 | -3.1527 | 0.001618 |
| LOC100181 | 0.708167 | -0.34508 | -0.52646 | -0.16369 | -3.72881 | 0.000192 |
| MAP4K1 | 0.70909 | -0.34377 | -0.5093 | -0.17825 | -4.07051 | 4.69E-05 |
| ZBTB32 | 0.709381 | -0.34336 | -0.53749 | -0.14924 | -3.46669 | 0.000527 |
| ITGAD | 0.714016 | -0.33685 | -0.53453 | -0.13917 | -3.33986 | 0.000838 |
| DPEP2 | 0.720516 | -0.32779 | -0.49479 | -0.16079 | -3.84696 | 0.00012 |
| TMEM149 | 0.721176 | -0.32687 | -0.59108 | -0.06267 | -2.42485 | 0.015315 |
| CLECL1 | 0.722137 | -0.32554 | -0.51288 | -0.1382 | -3.40587 | 0.00066 |
| CFP | 0.725718 | -0.32059 | -0.53744 | -0.10375 | -2.89766 | 0.00376 |
| FAM65B | 0.729179 | -0.31584 | -0.49718 | -0.13449 | -3.41354 | 0.000641 |
| FLT3LG | 0.733666 | -0.3097 | -0.53034 | -0.08907 | -2.75117 | 0.005938 |
| PILRA | 0.739407 | -0.30191 | -0.47679 | -0.12702 | -3.38357 | 0.000716 |
| ASGR2 | 0.740933 | -0.29984 | -0.50804 | -0.09165 | -2.82279 | 0.004761 |
| IL12B | 0.741036 | -0.29971 | -0.49826 | -0.10115 | -2.95845 | 0.003092 |
| PPP1R16B | 0.742966 | -0.2971 | -0.47664 | -0.11757 | -3.24354 | 0.001181 |
| SELP | 0.743111 | -0.29691 | -0.43992 | -0.1539 | -4.06912 | 4.72E-05 |
| SELPLG | 0.744718 | -0.29475 | -0.48556 | -0.10394 | -3.02766 | 0.002465 |
| ICAM3 | 0.747309 | -0.29128 | -0.54622 | -0.03633 | -2.23929 | 0.025137 |
| S1PR4 | 0.747794 | -0.29063 | -0.45665 | -0.1246 | -3.43091 | 0.000602 |
| JAKMIP2 | 0.748209 | -0.29007 | -0.47759 | -0.10256 | -3.0319 | 0.00243 |
| LILRA4 | 0.748914 | -0.28913 | -0.44262 | -0.13564 | -3.69208 | 0.000222 |
| GLIPR2 | 0.750213 | -0.2874 | -0.49904 | -0.07576 | -2.66151 | 0.007779 |
| RGL4 | 0.752005 | -0.28501 | -0.47748 | -0.09255 | -2.90238 | 0.003703 |
| STAP1 | 0.753361 | -0.28321 | -0.46324 | -0.10318 | -3.08322 | 0.002048 |
| BTLA | 0.754448 | -0.28177 | -0.45004 | -0.1135 | -3.28198 | 0.001031 |
| CCR7 | 0.754955 | -0.2811 | -0.4297 | -0.13249 | -3.70739 | 0.000209 |
| ZNF831 | 0.754974 | -0.28107 | -0.42723 | -0.13491 | -3.76906 | 0.000164 |
| SCUBE1 | 0.755547 | -0.28031 | -0.45975 | -0.10087 | -3.06177 | 0.0022 |
| SLC15A3 | 0.757232 | -0.27809 | -0.47025 | -0.08593 | -2.83639 | 0.004563 |
| WAS | 0.757322 | -0.27797 | -0.46078 | -0.09515 | -2.98012 | 0.002881 |
| SLC12A3 | 0.757683 | -0.27749 | -0.47657 | -0.07841 | -2.73196 | 0.006296 |
| IL3RA | 0.758032 | -0.27703 | -0.49713 | -0.05693 | -2.46691 | 0.013628 |
| GHRL | 0.760196 | -0.27418 | -0.49585 | -0.05251 | -2.42421 | 0.015342 |
| PIK3AP1 | 0.761062 | -0.27304 | -0.45747 | -0.08861 | -2.90171 | 0.003711 |
| ITGB7 | 0.762245 | -0.27149 | -0.45126 | -0.09171 | -2.95985 | 0.003078 |
| IL9R | 0.762345 | -0.27136 | -0.47057 | -0.07215 | -2.66979 | 0.00759 |
| KLHL6 | 0.765176 | -0.26765 | -0.4381 | -0.0972 | -3.07762 | 0.002087 |
| BIN2 | 0.765908 | -0.26669 | -0.41634 | -0.11705 | -3.49306 | 0.000478 |
| CD52 | 0.766323 | -0.26615 | -0.41891 | -0.11339 | -3.41482 | 0.000638 |
| APOBEC3F | 0.766565 | -0.26584 | -0.4455 | -0.08617 | -2.89995 | 0.003732 |
| PRKCB | 0.767503 | -0.26461 | -0.4138 | -0.11542 | -3.4763 | 0.000508 |
| LOC60672 | 0.768108 | -0.26383 | -0.45548 | -0.07217 | -2.69807 | 0.006974 |
| CCL17 | 0.769943 | -0.26144 | -0.40967 | -0.11321 | -3.45693 | 0.000546 |
| KIAA0748 | 0.772617 | -0.25797 | -0.41154 | -0.10441 | -3.29248 | 0.000993 |

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| GIMAP7 | 0.776003 | -0.2536 | -0.42196 | -0.08524 | -2.95227 | 0.003154 |
| JAK3 | 0.776438 | -0.25304 | -0.43232 | -0.07375 | -2.76626 | 0.00567 |
| ELMO1 | 0.776984 | -0.25234 | -0.43964 | -0.06503 | -2.64051 | 0.008278 |
| TCL1A | 0.777296 | -0.25193 | -0.40199 | -0.10187 | -3.29058 | 0.001 |
| P2RY8 | 0.778483 | -0.25041 | -0.40696 | -0.09385 | -3.13495 | 0.001719 |
| RHOH | 0.781058 | -0.24711 | -0.41666 | -0.07755 | -2.85644 | 0.004284 |
| P2RY10 | 0.782207 | -0.24564 | -0.39812 | -0.09315 | -3.15728 | 0.001593 |
| KLRK1 | 0.782471 | -0.2453 | -0.38061 | -0.10998 | -3.55302 | 0.000381 |
| STAC3 | 0.782578 | -0.24516 | -0.4581 | -0.03222 | -2.25652 | 0.024038 |
| MPEG1 | 0.782597 | -0.24514 | -0.4083 | -0.08197 | -2.94463 | 0.003233 |
| FGD2 | 0.78317 | -0.24441 | -0.41082 | -0.07799 | -2.87852 | 0.003995 |
| NFAM1 | 0.783822 | -0.24357 | -0.42846 | -0.05869 | -2.58209 | 0.009821 |
| APOBEC3C | 0.784559 | -0.24263 | -0.40275 | -0.08252 | -2.97006 | 0.002977 |
| PRAM1 | 0.784736 | -0.24241 | -0.42761 | -0.0572 | -2.56535 | 0.010307 |
| RAB33A | 0.785111 | -0.24193 | -0.45362 | -0.03024 | -2.23992 | 0.025096 |
| ODF3B | 0.785475 | -0.24147 | -0.42786 | -0.05508 | -2.53915 | 0.011112 |
| PLCB2 | 0.78589 | -0.24094 | -0.4582 | -0.02367 | -2.17352 | 0.029741 |
| PIK3R6 | 0.785892 | -0.24094 | -0.41792 | -0.06395 | -2.66818 | 0.007626 |
| SDS | 0.786512 | -0.24015 | -0.40137 | -0.07892 | -2.91943 | 0.003507 |
| C9orf139 | 0.786696 | -0.23991 | -0.4453 | -0.03453 | -2.28948 | 0.022051 |
| APOBEC3C | 0.787476 | -0.23892 | -0.41356 | -0.06429 | -2.68147 | 0.00733 |
| TNFRSF1B | 0.787936 | -0.23834 | -0.43825 | -0.03843 | -2.33672 | 0.019454 |
| GNGT2 | 0.788242 | -0.23795 | -0.41603 | -0.05987 | -2.61896 | 0.00882 |
| APOB48R | 0.789246 | -0.23668 | -0.43919 | -0.03416 | -2.29062 | 0.021986 |
| IL10RA | 0.789549 | -0.23629 | -0.40305 | -0.06953 | -2.77723 | 0.005483 |
| MFNG | 0.789652 | -0.23616 | -0.44599 | -0.02633 | -2.20595 | 0.027388 |
| CLEC9A | 0.789687 | -0.23612 | -0.42311 | -0.04913 | -2.47493 | 0.013326 |
| GRAP2 | 0.789687 | -0.23612 | -0.40201 | -0.07023 | -2.78967 | 0.005276 |
| IL16 | 0.789698 | -0.23611 | -0.41672 | -0.05549 | -2.56216 | 0.010402 |
| PTPN7 | 0.789752 | -0.23604 | -0.39131 | -0.08077 | -2.97948 | 0.002887 |
| CD226 | 0.790036 | -0.23568 | -0.43419 | -0.03716 | -2.32689 | 0.019971 |
| LAT2 | 0.790515 | -0.23507 | -0.45488 | -0.01526 | -2.09605 | 0.036078 |
| LAT | 0.791077 | -0.23436 | -0.42173 | -0.04699 | -2.45145 | 0.014228 |
| LY9 | 0.791262 | -0.23413 | -0.36696 | -0.1013 | -3.45464 | 0.000551 |
| OTOA | 0.791482 | -0.23385 | -0.44716 | -0.02054 | -2.14867 | 0.03166 |
| CD200R1 | 0.791594 | -0.23371 | -0.39277 | -0.07465 | -2.87975 | 0.00398 |
| TLR10 | 0.792609 | -0.23242 | -0.39056 | -0.07428 | -2.88064 | 0.003969 |
| LSP1 | 0.792684 | -0.23233 | -0.38249 | -0.08217 | -3.03254 | 0.002425 |
| FOXP3 | 0.792693 | -0.23232 | -0.38786 | -0.07678 | -2.92738 | 0.003418 |
| GAB3 | 0.792799 | -0.23219 | -0.41093 | -0.05344 | -2.54595 | 0.010898 |
| TBC1D10C | 0.793678 | -0.23108 | -0.37308 | -0.08908 | -3.18946 | 0.001425 |
| HCLS1 | 0.794248 | -0.23036 | -0.40542 | -0.0553 | -2.57905 | 0.009907 |
| KCNJ10 | 0.79467 | -0.22983 | -0.38872 | -0.07094 | -2.83503 | 0.004582 |
| GPBAR1 | 0.7951 | -0.22929 | -0.45094 | -0.00764 | -2.0275 | 0.042611 |
| C8orf80 | 0.795334 | -0.22899 | -0.3873 | -0.07068 | -2.83508 | 0.004581 |
| FAM78A | 0.796734 | -0.22723 | -0.42336 | -0.03111 | -2.27089 | 0.023154 |
| RNASE6 | 0.797053 | -0.22683 | -0.40989 | -0.04378 | -2.42873 | 0.015152 |
| CD28 | 0.797095 | -0.22678 | -0.39402 | -0.05954 | -2.65775 | 0.007866 |
| FCRL4 | 0.797327 | -0.22649 | -0.43903 | -0.01395 | -2.0886 | 0.036744 |
| CORO1A | 0.797392 | -0.22641 | -0.41785 | -0.03496 | -2.31792 | 0.020454 |
| MIR155HG | 0.797635 | -0.2261 | -0.42058 | -0.03162 | -2.27868 | 0.022686 |
| GIMAP4 | 0.797698 | -0.22602 | -0.39884 | -0.05321 | -2.56347 | 0.010363 |
| FCRL2 | 0.798226 | -0.22536 | -0.37698 | -0.07375 | -2.9133 | 0.003576 |
| ACAP1 | 0.798423 | -0.22512 | -0.38227 | -0.06797 | -2.80768 | 0.00499 |
| LILRP2 | 0.798665 | -0.22481 | -0.39901 | -0.05062 | -2.52951 | 0.011422 |
| ZNF80 | 0.798666 | -0.22481 | -0.3982 | -0.05142 | -2.54121 | 0.011047 |
| CD27 | 0.798907 | -0.22451 | -0.35193 | -0.09709 | -3.45337 | 0.000554 |
| HVCN1 | 0.799613 | -0.22363 | -0.43517 | -0.01208 | -2.07189 | 0.038276 |

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| FAIM3 | 0.799783 | -0.22342 | -0.42625 | -0.02058 | -2.15885 | 0.030862 |
| AIPL1 | 0.7999 | -0.22327 | -0.43819 | -0.00834 | -2.03606 | 0.041744 |
| C16orf54 | 0.799931 | -0.22323 | -0.3726 | -0.07386 | -2.92905 | 0.0034 |
| PSMB10 | 0.800369 | -0.22268 | -0.41985 | -0.02552 | -2.21362 | 0.026855 |
| P2RY12 | 0.800777 | -0.22217 | -0.40509 | -0.03926 | -2.38059 | 0.017285 |
| FGR | 0.801345 | -0.22146 | -0.42196 | -0.02096 | -2.16488 | 0.030397 |
| SPIB | 0.801489 | -0.22128 | -0.35358 | -0.08899 | -3.27827 | 0.001044 |
| CXCR6 | 0.801535 | -0.22123 | -0.35401 | -0.08845 | -3.26551 | 0.001093 |
| CSF2RA | 0.801994 | -0.22065 | -0.35938 | -0.08193 | -3.11746 | 0.001824 |
| LCK | 0.802692 | -0.21978 | -0.37642 | -0.06314 | -2.75005 | 0.005959 |
| RENBP | 0.80309 | -0.21929 | -0.3814 | -0.05718 | -2.65132 | 0.008018 |
| IFI35 | 0.80331 | -0.21901 | -0.43606 | -0.00197 | -1.97778 | 0.047953 |
| IKZF1 | 0.803322 | -0.219 | -0.37299 | -0.06501 | -2.78737 | 0.005314 |
| CYTIP | 0.803853 | -0.21834 | -0.37798 | -0.0587 | -2.68069 | 0.007347 |
| FERMT3 | 0.804239 | -0.21786 | -0.40299 | -0.03272 | -2.30638 | 0.021089 |
| ITM2A | 0.804414 | -0.21764 | -0.36981 | -0.06547 | -2.80318 | 0.00506 |
| GIMAP5 | 0.804499 | -0.21754 | -0.38547 | -0.0496 | -2.5389 | 0.01112 |
| RRN3P2 | 0.804527 | -0.2175 | -0.43103 | -0.00397 | -1.99641 | 0.045889 |
| HLA-DPB1 | 0.804651 | -0.21735 | -0.36079 | -0.0739 | -2.96968 | 0.002981 |
| C1orf54 | 0.804771 | -0.2172 | -0.41945 | -0.01495 | -2.10481 | 0.035307 |
| GIMAP8 | 0.805289 | -0.21655 | -0.42068 | -0.01242 | -2.07926 | 0.037593 |
| CD37 | 0.805341 | -0.21649 | -0.37535 | -0.05763 | -2.67103 | 0.007562 |
| PSTPIP1 | 0.805375 | -0.21645 | -0.37065 | -0.06225 | -2.75116 | 0.005938 |
| SELL | 0.805558 | -0.21622 | -0.35702 | -0.07542 | -3.00993 | 0.002613 |
| CD3E | 0.805905 | -0.21579 | -0.34741 | -0.08417 | -3.21343 | 0.001312 |
| GMFG | 0.806092 | -0.21556 | -0.39444 | -0.03667 | -2.3618 | 0.018187 |
| KLRB1 | 0.806258 | -0.21535 | -0.3364 | -0.09431 | -3.48694 | 0.000489 |
| RARRES3 | 0.806377 | -0.2152 | -0.34593 | -0.08448 | -3.2266 | 0.001253 |
| HPGDS | 0.806794 | -0.21469 | -0.37668 | -0.0527 | -2.59755 | 0.009389 |
| FBXO6 | 0.807165 | -0.21423 | -0.42396 | -0.0045 | -2.00201 | 0.045283 |
| FCRL1 | 0.807897 | -0.21332 | -0.4124 | -0.01425 | -2.10022 | 0.03571 |
| RTN1 | 0.808554 | -0.21251 | -0.36046 | -0.06455 | -2.81508 | 0.004876 |
| GFI1 | 0.808652 | -0.21239 | -0.39874 | -0.02603 | -2.23374 | 0.0255 |
| CCR6 | 0.809264 | -0.21163 | -0.4074 | -0.01586 | -2.11871 | 0.034115 |
| PTPRCAP | 0.809415 | -0.21144 | -0.35769 | -0.0652 | -2.83378 | 0.0046 |
| SLA | 0.809597 | -0.21122 | -0.37468 | -0.04775 | -2.53255 | 0.011324 |
| UBASH3A | 0.809611 | -0.2112 | -0.34967 | -0.07274 | -2.98951 | 0.002794 |
| RAB37 | 0.809971 | -0.21076 | -0.39209 | -0.02943 | -2.27804 | 0.022724 |
| HAVCR2 | 0.810038 | -0.21067 | -0.37152 | -0.04983 | -2.56721 | 0.010252 |
| CELF2 | 0.810093 | -0.21061 | -0.39223 | -0.02899 | -2.27277 | 0.02304 |
| TNFAIP8L2 | 0.810466 | -0.21015 | -0.37737 | -0.04292 | -2.46303 | 0.013777 |
| CD1C | 0.810479 | -0.21013 | -0.33699 | -0.08327 | -3.24647 | 0.001168 |
| CD247 | 0.810596 | -0.20999 | -0.35841 | -0.06156 | -2.77284 | 0.005557 |
| CD2 | 0.810685 | -0.20988 | -0.34173 | -0.07803 | -3.11982 | 0.00181 |
| SLA2 | 0.811038 | -0.20944 | -0.35003 | -0.06885 | -2.91975 | 0.003503 |
| NCF4 | 0.811182 | -0.20926 | -0.40051 | -0.01802 | -2.1446 | 0.031985 |
| GPR171 | 0.811182 | -0.20926 | -0.35016 | -0.06837 | -2.91101 | 0.003603 |
| ARHGAP3C | 0.811446 | -0.20894 | -0.40333 | -0.01455 | -2.10667 | 0.035146 |
| DOK2 | 0.811761 | -0.20855 | -0.37418 | -0.04292 | -2.4678 | 0.013595 |
| HTRA4 | 0.811772 | -0.20854 | -0.37799 | -0.03909 | -2.41206 | 0.015863 |
| CST7 | 0.812149 | -0.20807 | -0.34461 | -0.07153 | -2.98679 | 0.002819 |
| ZAP70 | 0.812738 | -0.20735 | -0.33073 | -0.08396 | -3.29365 | 0.000989 |
| CLEC4A | 0.812965 | -0.20707 | -0.39114 | -0.023 | -2.20486 | 0.027464 |
| GIMAP6 | 0.813136 | -0.20686 | -0.40164 | -0.01208 | -2.08149 | 0.037389 |
| RASAL3 | 0.813158 | -0.20683 | -0.3609 | -0.05276 | -2.6311 | 0.008511 |
| HAPLN3 | 0.813214 | -0.20676 | -0.4082 | -0.00532 | -2.01171 | 0.04425 |
| NAPSB | 0.813498 | -0.20641 | -0.33588 | -0.07695 | -3.12487 | 0.001779 |
| SLAMF6 | 0.813553 | -0.20634 | -0.33985 | -0.07283 | -3.02921 | 0.002452 |

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| CD5 | 0.813879 | -0.20594 | -0.34806 | -0.06383 | -2.84028 | 0.004507 |
| IGSF6 | 0.814064 | -0.20572 | -0.36502 | -0.04641 | -2.53096 | 0.011375 |
| DOCK8 | 0.814815 | -0.20479 | -0.39388 | -0.01571 | -2.12278 | 0.033773 |
| CD19 | 0.815299 | -0.2042 | -0.3306 | -0.0778 | -3.16627 | 0.001544 |
| VCAM1 | 0.81577 | -0.20362 | -0.33958 | -0.06767 | -2.93544 | 0.003331 |
| PARP15 | 0.815843 | -0.20353 | -0.36428 | -0.04279 | -2.48167 | 0.013077 |
| PDE6G | 0.816136 | -0.20317 | -0.40302 | -0.00333 | -1.99261 | 0.046304 |
| LY86 | 0.816163 | -0.20314 | -0.35439 | -0.05189 | -2.63242 | 0.008478 |
| ABI3 | 0.816249 | -0.20304 | -0.37827 | -0.0278 | -2.27093 | 0.023152 |
| PNOC | 0.816683 | -0.2025 | -0.34566 | -0.05935 | -2.77262 | 0.005561 |
| CD300LF | 0.816829 | -0.20233 | -0.37096 | -0.03369 | -2.35158 | 0.018694 |
| LAPTM5 | 0.817084 | -0.20201 | -0.37328 | -0.03074 | -2.31177 | 0.02079 |
| NLRC5 | 0.817108 | -0.20198 | -0.39512 | -0.00885 | -2.04973 | 0.040391 |
| SASH3 | 0.817156 | -0.20193 | -0.36596 | -0.03789 | -2.41265 | 0.015837 |
| ETV7 | 0.817553 | -0.20144 | -0.3556 | -0.04728 | -2.56102 | 0.010437 |
| BTK | 0.817824 | -0.20111 | -0.35669 | -0.04552 | -2.53343 | 0.011295 |
| CD7 | 0.817846 | -0.20108 | -0.33575 | -0.06641 | -2.92642 | 0.003429 |
| ARHGAP9 | 0.817875 | -0.20105 | -0.35584 | -0.04625 | -2.54556 | 0.01091 |
| C17orf87 | 0.818211 | -0.20063 | -0.36993 | -0.03134 | -2.32277 | 0.020191 |
| SCML4 | 0.818578 | -0.20019 | -0.33857 | -0.06181 | -2.83537 | 0.004577 |
| POU2AF1 | 0.818771 | -0.19995 | -0.31039 | -0.08951 | -3.54851 | 0.000387 |
| FCRL3 | 0.819103 | -0.19955 | -0.33816 | -0.06093 | -2.82144 | 0.004781 |
| LRMP | 0.820062 | -0.19838 | -0.33774 | -0.05901 | -2.78986 | 0.005273 |
| SAMD3 | 0.820191 | -0.19822 | -0.34187 | -0.05457 | -2.70452 | 0.00684 |
| CD1B | 0.820888 | -0.19737 | -0.35408 | -0.04066 | -2.46843 | 0.013571 |
| SLAMF1 | 0.821984 | -0.19603 | -0.34409 | -0.04798 | -2.59517 | 0.009454 |
| GPR132 | 0.82205 | -0.19595 | -0.38342 | -0.00849 | -2.04873 | 0.040488 |
| LAG3 | 0.822079 | -0.19592 | -0.32899 | -0.06285 | -2.88568 | 0.003906 |
| TIGIT | 0.822137 | -0.19585 | -0.32161 | -0.07009 | -3.05237 | 0.00227 |
| JAKMIP1 | 0.822255 | -0.1957 | -0.33093 | -0.06048 | -2.83655 | 0.00456 |
| HLA-DPB2 | 0.82301 | -0.19479 | -0.36018 | -0.0294 | -2.30831 | 0.020982 |
| SP140 | 0.82347 | -0.19423 | -0.35434 | -0.03411 | -2.37752 | 0.01743 |
| CD1E | 0.824069 | -0.1935 | -0.31012 | -0.07688 | -3.25214 | 0.001145 |
| SH2D1A | 0.824478 | -0.193 | -0.32521 | -0.06079 | -2.86121 | 0.00422 |
| CD48 | 0.824504 | -0.19297 | -0.33107 | -0.05488 | -2.73878 | 0.006167 |
| CH25H | 0.824827 | -0.19258 | -0.3198 | -0.06537 | -2.96705 | 0.003007 |
| CRTAM | 0.825541 | -0.19172 | -0.32308 | -0.06035 | -2.86043 | 0.004231 |
| AGAP2 | 0.825665 | -0.19157 | -0.3802 | -0.00294 | -1.99047 | 0.04654 |
| GPR65 | 0.825886 | -0.1913 | -0.36305 | -0.01955 | -2.18303 | 0.029033 |
| CD96 | 0.82603 | -0.19112 | -0.32787 | -0.05437 | -2.73927 | 0.006158 |
| TRAT1 | 0.826528 | -0.19052 | -0.32787 | -0.05318 | -2.7188 | 0.006552 |
| CD53 | 0.826982 | -0.18997 | -0.35505 | -0.02489 | -2.25546 | 0.024104 |
| PYHIN1 | 0.82705 | -0.18989 | -0.32548 | -0.0543 | -2.74493 | 0.006052 |
| MS4A6A | 0.827247 | -0.18965 | -0.33628 | -0.04303 | -2.53513 | 0.011241 |
| AIF1 | 0.828025 | -0.18871 | -0.35168 | -0.02575 | -2.2696 | 0.023232 |
| P2RY13 | 0.828074 | -0.18865 | -0.33146 | -0.04585 | -2.58925 | 0.009619 |
| ICOS | 0.828416 | -0.18824 | -0.32182 | -0.05466 | -2.76199 | 0.005745 |
| C1orf162 | 0.82843 | -0.18822 | -0.36838 | -0.00806 | -2.04766 | 0.040593 |
| RCSD1 | 0.829154 | -0.18735 | -0.35639 | -0.0183 | -2.17219 | 0.029842 |
| GPR183 | 0.829162 | -0.18734 | -0.34631 | -0.02837 | -2.30978 | 0.0209 |
| NCKAP1L | 0.829314 | -0.18716 | -0.33746 | -0.03686 | -2.44058 | 0.014664 |
| DOCK10 | 0.82932 | -0.18715 | -0.35092 | -0.02338 | -2.23982 | 0.025103 |
| ITK | 0.82936 | -0.1871 | -0.31887 | -0.05533 | -2.78301 | 0.005386 |
| AMICA1 | 0.829578 | -0.18684 | -0.3151 | -0.05857 | -2.85499 | 0.004304 |
| CXCR3 | 0.82967 | -0.18673 | -0.32359 | -0.04987 | -2.67411 | 0.007493 |
| TIFAB | 0.83007 | -0.18624 | -0.32557 | -0.04692 | -2.61997 | 0.008794 |
| TSPAN32 | 0.830126 | -0.18618 | -0.3609 | -0.01145 | -2.08844 | 0.036758 |
| CCL22 | 0.830475 | -0.18576 | -0.32857 | -0.04294 | -2.54927 | 0.010795 |

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|-----------|----------|----------|----------|----------|----------|----------|
| ABCD2 | 0.830684 | -0.18551 | -0.35104 | -0.01997 | -2.19645 | 0.028059 |
| TARP | 0.831383 | -0.18466 | -0.32844 | -0.04089 | -2.51738 | 0.011823 |
| PATL2 | 0.831428 | -0.18461 | -0.3468 | -0.02242 | -2.23088 | 0.025689 |
| FUT7 | 0.8316 | -0.1844 | -0.33759 | -0.03122 | -2.35941 | 0.018304 |
| ARHGAP15 | 0.831744 | -0.18423 | -0.32144 | -0.04702 | -2.63163 | 0.008498 |
| MS4A7 | 0.831868 | -0.18408 | -0.34315 | -0.02501 | -2.26812 | 0.023322 |
| LST1 | 0.83239 | -0.18345 | -0.33874 | -0.02817 | -2.31557 | 0.020582 |
| CEACAM2 | 0.832547 | -0.18327 | -0.34749 | -0.01904 | -2.18723 | 0.028726 |
| GVIN1 | 0.833277 | -0.18239 | -0.33601 | -0.02877 | -2.32703 | 0.019964 |
| SPN | 0.834007 | -0.18151 | -0.34179 | -0.02124 | -2.21969 | 0.02644 |
| HLA-DRA | 0.834375 | -0.18107 | -0.31888 | -0.04326 | -2.57527 | 0.010016 |
| CD3D | 0.83472 | -0.18066 | -0.30127 | -0.06004 | -2.93567 | 0.003328 |
| LYZ | 0.834979 | -0.18035 | -0.30606 | -0.05464 | -2.81188 | 0.004925 |
| TNFRSF13F | 0.834982 | -0.18035 | -0.31457 | -0.04612 | -2.63346 | 0.008452 |
| SPOCK2 | 0.834989 | -0.18034 | -0.34778 | -0.01289 | -2.11089 | 0.034781 |
| WDFY4 | 0.835258 | -0.18002 | -0.3209 | -0.03913 | -2.50433 | 0.012268 |
| HCK | 0.835559 | -0.17965 | -0.33529 | -0.02402 | -2.26239 | 0.023673 |
| CLEC12A | 0.835567 | -0.17964 | -0.31261 | -0.04668 | -2.64813 | 0.008094 |
| HLA-DMB | 0.835977 | -0.17915 | -0.31992 | -0.03839 | -2.49446 | 0.012615 |
| IL34 | 0.836035 | -0.17908 | -0.30629 | -0.05188 | -2.7594 | 0.005791 |
| CD79B | 0.836669 | -0.17833 | -0.31869 | -0.03796 | -2.49002 | 0.012774 |
| EVI2B | 0.836687 | -0.17831 | -0.34466 | -0.01195 | -2.10072 | 0.035666 |
| CXCR5 | 0.836956 | -0.17798 | -0.32632 | -0.02964 | -2.35162 | 0.018692 |
| EVI2A | 0.83704 | -0.17788 | -0.34375 | -0.01201 | -2.10192 | 0.035561 |
| C5orf20 | 0.837913 | -0.17684 | -0.30968 | -0.04401 | -2.60926 | 0.009074 |
| HCG26 | 0.838193 | -0.17651 | -0.32796 | -0.02505 | -2.28417 | 0.022362 |
| DARC | 0.838401 | -0.17626 | -0.27544 | -0.07707 | -3.48304 | 0.000496 |
| ABCB1 | 0.838419 | -0.17624 | -0.34649 | -0.00598 | -2.02886 | 0.042472 |
| TBX21 | 0.838463 | -0.17618 | -0.32066 | -0.03171 | -2.39015 | 0.016841 |
| BCL2L14 | 0.839681 | -0.17473 | -0.30111 | -0.04835 | -2.70981 | 0.006732 |
| LOC10023 | 0.840086 | -0.17425 | -0.33487 | -0.01363 | -2.12634 | 0.033475 |
| FLT3 | 0.84019 | -0.17413 | -0.32584 | -0.02242 | -2.24961 | 0.024474 |
| CTLA4 | 0.840263 | -0.17404 | -0.31048 | -0.0376 | -2.50009 | 0.012416 |
| GPR18 | 0.840346 | -0.17394 | -0.3423 | -0.00558 | -2.02492 | 0.042875 |
| FOLR2 | 0.840603 | -0.17364 | -0.32482 | -0.02246 | -2.25108 | 0.02438 |
| CD80 | 0.840707 | -0.17351 | -0.33309 | -0.01393 | -2.13103 | 0.033087 |
| HLA-DPA1 | 0.841134 | -0.173 | -0.31192 | -0.03408 | -2.44084 | 0.014653 |
| PTPN22 | 0.841213 | -0.17291 | -0.31882 | -0.027 | -2.32265 | 0.020198 |
| ITGAL | 0.841355 | -0.17274 | -0.30591 | -0.03957 | -2.5424 | 0.011009 |
| MCOLN2 | 0.841771 | -0.17225 | -0.34038 | -0.00411 | -2.0079 | 0.044653 |
| CD40LG | 0.842244 | -0.17169 | -0.32768 | -0.01569 | -2.15716 | 0.030993 |
| PLA2G2D | 0.842736 | -0.1711 | -0.26513 | -0.07707 | -3.5663 | 0.000362 |
| CD74 | 0.843009 | -0.17078 | -0.30759 | -0.03397 | -2.44661 | 0.014421 |
| IL12RB1 | 0.843379 | -0.17034 | -0.3072 | -0.03347 | -2.4393 | 0.014716 |
| SIGLEC8 | 0.843723 | -0.16993 | -0.30583 | -0.03403 | -2.45077 | 0.014255 |
| BLK | 0.843991 | -0.16961 | -0.31032 | -0.0289 | -2.36253 | 0.018151 |
| HAMP | 0.844007 | -0.16959 | -0.31628 | -0.02291 | -2.26604 | 0.023449 |
| IL18RAP | 0.844918 | -0.16852 | -0.32087 | -0.01617 | -2.16793 | 0.030164 |
| RASGRP2 | 0.845535 | -0.16779 | -0.32411 | -0.01146 | -2.10365 | 0.035409 |
| FGL2 | 0.845566 | -0.16775 | -0.31147 | -0.02403 | -2.28764 | 0.022158 |
| CCL5 | 0.845848 | -0.16742 | -0.29145 | -0.04338 | -2.64551 | 0.008157 |
| CD8A | 0.84608 | -0.16714 | -0.29199 | -0.04229 | -2.6239 | 0.008693 |
| CD4 | 0.846262 | -0.16693 | -0.32141 | -0.01244 | -2.11775 | 0.034197 |
| CD86 | 0.84816 | -0.16469 | -0.31512 | -0.01425 | -2.1456 | 0.031905 |
| BATF | 0.848221 | -0.16461 | -0.30187 | -0.02736 | -2.35065 | 0.01874 |
| CX3CL1 | 0.848448 | -0.16435 | -0.27001 | -0.05869 | -3.04855 | 0.0023 |
| CECR1 | 0.848785 | -0.16395 | -0.30382 | -0.02408 | -2.29732 | 0.0216 |
| SIT1 | 0.848876 | -0.16384 | -0.30099 | -0.0267 | -2.34152 | 0.019205 |

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|-----------|----------|----------|----------|----------|----------|----------|
| GPR174 | 0.849234 | -0.16342 | -0.32499 | -0.00185 | -1.98243 | 0.047431 |
| SIRPG | 0.849747 | -0.16282 | -0.2876 | -0.03803 | -2.55734 | 0.010548 |
| HCST | 0.850485 | -0.16195 | -0.31318 | -0.01072 | -2.09889 | 0.035826 |
| CYBB | 0.850532 | -0.16189 | -0.31645 | -0.00734 | -2.05301 | 0.040072 |
| DNAJC5B | 0.851032 | -0.1613 | -0.31764 | -0.00497 | -2.02232 | 0.043143 |
| GZMM | 0.851427 | -0.16084 | -0.29027 | -0.03142 | -2.43571 | 0.014863 |
| CD3G | 0.85148 | -0.16078 | -0.28806 | -0.0335 | -2.47576 | 0.013295 |
| TYROBP | 0.851526 | -0.16073 | -0.31533 | -0.00612 | -2.03752 | 0.041598 |
| LAX1 | 0.851675 | -0.16055 | -0.30711 | -0.01399 | -2.14711 | 0.031785 |
| RASGRP1 | 0.851991 | -0.16018 | -0.3111 | -0.00926 | -2.08019 | 0.037508 |
| KLRC2 | 0.852672 | -0.15938 | -0.28508 | -0.03368 | -2.48511 | 0.012951 |
| TNFSF13B | 0.852951 | -0.15905 | -0.30262 | -0.01549 | -2.17136 | 0.029904 |
| NCF1B | 0.853138 | -0.15883 | -0.31598 | -0.00168 | -1.98097 | 0.047595 |
| TFEC | 0.853275 | -0.15867 | -0.30715 | -0.0102 | -2.09458 | 0.036209 |
| CSF2RB | 0.853329 | -0.15861 | -0.31633 | -0.00089 | -1.97103 | 0.048721 |
| TRAF3IP3 | 0.853443 | -0.15848 | -0.3156 | -0.00135 | -1.97678 | 0.048067 |
| LGALS2 | 0.853594 | -0.1583 | -0.27373 | -0.04287 | -2.68793 | 0.00719 |
| RUFY4 | 0.853602 | -0.15829 | -0.27981 | -0.03677 | -2.55296 | 0.010681 |
| TLR7 | 0.853733 | -0.15814 | -0.31388 | -0.0024 | -1.99015 | 0.046574 |
| CCR5 | 0.85495 | -0.15671 | -0.29262 | -0.02081 | -2.26003 | 0.023819 |
| PTPRC | 0.855997 | -0.15549 | -0.29081 | -0.02017 | -2.25207 | 0.024318 |
| RGS1 | 0.857224 | -0.15406 | -0.28869 | -0.01943 | -2.24277 | 0.024912 |
| PDCD1 | 0.857407 | -0.15384 | -0.28985 | -0.01784 | -2.21706 | 0.026619 |
| DOCK2 | 0.857577 | -0.15364 | -0.30266 | -0.00463 | -2.02084 | 0.043296 |
| CLIC2 | 0.857639 | -0.15357 | -0.29934 | -0.00781 | -2.06494 | 0.038929 |
| KCNA3 | 0.857721 | -0.15348 | -0.30594 | -0.00101 | -1.97297 | 0.048499 |
| FCRL6 | 0.858046 | -0.1531 | -0.30576 | -0.00043 | -1.9655 | 0.049356 |
| CHIT1 | 0.858522 | -0.15254 | -0.23619 | -0.0689 | -3.57444 | 0.000351 |
| CD244 | 0.859205 | -0.15175 | -0.3017 | -0.0018 | -1.98343 | 0.04732 |
| IL2RG | 0.860083 | -0.15073 | -0.28926 | -0.01219 | -2.13241 | 0.032973 |
| PLA2G7 | 0.860219 | -0.15057 | -0.28677 | -0.01437 | -2.16675 | 0.030254 |
| APOC1 | 0.860237 | -0.15055 | -0.27549 | -0.02561 | -2.36168 | 0.018192 |
| AOAH | 0.86057 | -0.15016 | -0.27337 | -0.02695 | -2.38868 | 0.016909 |
| THEMIS | 0.860588 | -0.15014 | -0.29926 | -0.00102 | -1.9734 | 0.04845 |
| CCL19 | 0.861494 | -0.14909 | -0.2355 | -0.06267 | -3.38152 | 0.000721 |
| PLAC8 | 0.861907 | -0.14861 | -0.2521 | -0.04512 | -2.81438 | 0.004887 |
| HLA-DQA1 | 0.862388 | -0.14805 | -0.26733 | -0.02877 | -2.43279 | 0.014983 |
| FAM26F | 0.864578 | -0.14551 | -0.28866 | -0.00237 | -1.99243 | 0.046324 |
| CLEC10A | 0.865287 | -0.14469 | -0.2561 | -0.03328 | -2.54548 | 0.010913 |
| PLD4 | 0.865937 | -0.14394 | -0.26379 | -0.02409 | -2.354 | 0.018573 |
| KLRD1 | 0.866113 | -0.14374 | -0.27232 | -0.01516 | -2.19104 | 0.028449 |
| LILRB4 | 0.866468 | -0.14333 | -0.26983 | -0.01683 | -2.22074 | 0.026368 |
| ZNF683 | 0.866682 | -0.14308 | -0.24463 | -0.04154 | -2.76172 | 0.00575 |
| MS4A1 | 0.866713 | -0.14305 | -0.24448 | -0.04162 | -2.76417 | 0.005707 |
| IL21R | 0.868708 | -0.14075 | -0.26839 | -0.0131 | -2.16117 | 0.030682 |
| PTGDS | 0.869556 | -0.13977 | -0.23859 | -0.04096 | -2.77237 | 0.005565 |
| FXD2 | 0.870352 | -0.13886 | -0.27592 | -0.0018 | -1.98569 | 0.047068 |
| IL22RA2 | 0.871691 | -0.13732 | -0.26584 | -0.0088 | -2.0942 | 0.036242 |
| CIITA | 0.872368 | -0.13654 | -0.26294 | -0.01015 | -2.11729 | 0.034235 |
| CD79A | 0.873144 | -0.13565 | -0.2422 | -0.02911 | -2.49548 | 0.012579 |
| GZMK | 0.873273 | -0.13551 | -0.24161 | -0.0294 | -2.50303 | 0.012313 |
| CD38 | 0.873417 | -0.13534 | -0.25459 | -0.0161 | -2.22451 | 0.026114 |
| NKG7 | 0.875182 | -0.13332 | -0.25536 | -0.01129 | -2.14123 | 0.032255 |
| HLA-DOA | 0.875424 | -0.13305 | -0.25815 | -0.00794 | -2.0844 | 0.037123 |
| IRF4 | 0.875592 | -0.13285 | -0.26477 | -0.00094 | -1.97386 | 0.048397 |
| HLA-DQA1 | 0.878658 | -0.12936 | -0.23729 | -0.02143 | -2.34907 | 0.01882 |
| CXCR2P1 | 0.879264 | -0.12867 | -0.22774 | -0.0296 | -2.54547 | 0.010913 |
| LOC400751 | 0.879405 | -0.12851 | -0.24718 | -0.00984 | -2.1225 | 0.033796 |

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|----------|----------|----------|----------|----------|----------|----------|
| TREM2 | 0.880552 | -0.12721 | -0.25006 | -0.00436 | -2.02948 | 0.04241 |
| S100B | 0.882925 | -0.12451 | -0.24335 | -0.00568 | -2.05368 | 0.040007 |
| GZMH | 0.886664 | -0.12029 | -0.23119 | -0.00938 | -2.12578 | 0.033521 |
| CTSW | 0.887988 | -0.1188 | -0.23159 | -0.00601 | -2.06433 | 0.038987 |
| IGJ | 0.888386 | -0.11835 | -0.21033 | -0.02637 | -2.52185 | 0.011674 |
| LOC96610 | 0.890105 | -0.11642 | -0.22491 | -0.00792 | -2.10304 | 0.035462 |
| MGC29506 | 0.890322 | -0.11617 | -0.21477 | -0.01758 | -2.30937 | 0.020923 |
| TNFRSF17 | 0.891897 | -0.1144 | -0.22716 | -0.00165 | -1.9886 | 0.046746 |
| HLA-DRB6 | 0.89305 | -0.11311 | -0.21353 | -0.0127 | -2.20781 | 0.027258 |
| CD8B | 0.896907 | -0.1088 | -0.21299 | -0.00461 | -2.04675 | 0.040683 |
| ADAMDEC | 0.900649 | -0.10464 | -0.20512 | -0.00416 | -2.04111 | 0.04124 |
| CYP4B1 | 0.900682 | -0.1046 | -0.17649 | -0.03272 | -2.85203 | 0.004344 |
| ADAM6 | 0.907716 | -0.09682 | -0.18052 | -0.01312 | -2.26727 | 0.023374 |
| FOXE1 | 0.912039 | -0.09207 | -0.16923 | -0.01492 | -2.33894 | 0.019338 |
| CCL21 | 0.913485 | -0.09049 | -0.17487 | -0.00611 | -2.10189 | 0.035563 |
| KLHDC7B | 0.918357 | -0.08517 | -0.16785 | -0.00249 | -2.01888 | 0.0435 |
| SLC22A3 | 1.175171 | 0.161414 | 0.04529 | 0.277538 | 2.724378 | 0.006442 |