

Table S1 The 193 differentially expressed immune-related genes between the tumor and normal samples (GSE32018)

| | ID | logFC | AveExpr | t | PValue | adj.P.Val | B |
|-----------|----|----------|----------|----------|----------|-----------|----------|
| CCND1 | NA | 3.560162 | 0.433423 | 9.77536 | 4.98E-11 | 1.74E-08 | 15.21051 |
| CD28 | NA | -2.62568 | 0.149047 | -6.39063 | 3.89E-07 | 1.35E-05 | 6.428437 |
| CTSG | NA | -2.5571 | 0.852059 | -3.87416 | 0.000512 | 0.00348 | -0.57031 |
| AICDA | NA | -2.54907 | 1.444855 | -5.05673 | 1.78E-05 | 0.000259 | 2.68189 |
| IL6R | NA | -2.4794 | 1.950548 | -9.80135 | 4.68E-11 | 1.68E-08 | 15.27208 |
| CD3G | NA | -2.40335 | 1.921899 | -6.45852 | 3.21E-07 | 1.18E-05 | 6.617187 |
| BTLA | NA | -2.34143 | 3.352493 | -5.52259 | 4.66E-06 | 9.13E-05 | 3.993574 |
| KLRK1 | NA | 2.287793 | 0.820645 | 5.382077 | 6.98E-06 | 0.000124 | 3.597592 |
| CD3D | NA | -2.27627 | 0.357046 | -5.78658 | 2.18E-06 | 5.14E-05 | 4.737049 |
| CD247 | NA | -2.15903 | 2.257187 | -8.95454 | 3.84E-10 | 8.08E-08 | 13.21723 |
| IL7R | NA | -2.10977 | 3.068517 | -6.70793 | 1.59E-07 | 7.04E-06 | 7.307449 |
| SLAMF1 | NA | -2.09729 | 3.150661 | -7.09891 | 5.34E-08 | 3.26E-06 | 8.378287 |
| SPP1 | NA | -2.08138 | -4.7399 | -7.39269 | 2.38E-08 | 1.75E-06 | 9.172572 |
| CLEC4M | NA | -2.01668 | 1.754724 | -3.86386 | 0.000527 | 0.003557 | -0.59763 |
| CD209 | NA | -1.94941 | 1.510986 | -4.28334 | 0.000163 | 0.001416 | 0.532969 |
| CDH1 | NA | -1.92415 | -2.54488 | -8.77356 | 6.10E-10 | 1.10E-07 | 12.76512 |
| FLT3 | NA | -1.91784 | 2.390189 | -6.3878 | 3.92E-07 | 1.36E-05 | 6.42057 |
| ITK | NA | -1.90164 | 1.915375 | -6.94077 | 8.29E-08 | 4.48E-06 | 7.946957 |
| CD96 | NA | -1.88345 | 1.194558 | -9.58458 | 7.95E-11 | 2.43E-08 | 14.75562 |
| CD163 | NA | -1.8822 | 4.220506 | -2.7673 | 0.009408 | 0.033809 | -3.31613 |
| GZMB | NA | -1.8792 | 4.353645 | -6.3093 | 4.90E-07 | 1.61E-05 | 6.201917 |
| ICOS | NA | -1.87882 | 3.183816 | -6.25829 | 5.66E-07 | 1.79E-05 | 6.059602 |
| TBX21 | NA | -1.86153 | 3.871337 | -4.94869 | 2.43E-05 | 0.00033 | 2.378655 |
| CXCL12 | NA | -1.85209 | 1.84454 | -4.73249 | 4.53E-05 | 0.000527 | 1.774102 |
| CX3CR1 | NA | -1.82208 | -2.28007 | -5.17457 | 1.27E-05 | 0.000201 | 3.013214 |
| TNFSF11 | NA | -1.78881 | 3.349843 | -4.27528 | 0.000167 | 0.001441 | 0.510928 |
| CAMP | NA | 1.700845 | 3.621482 | 2.565096 | 0.015325 | 0.049167 | -3.76269 |
| IL33 | NA | -1.68277 | 4.024037 | -4.17317 | 0.000222 | 0.00183 | 0.232799 |
| GIMAP4 | NA | -1.66951 | 5.156096 | -5.45287 | 5.69E-06 | 0.000107 | 3.797097 |
| TNFSF4 | NA | 1.663498 | 1.787824 | 3.741592 | 0.000737 | 0.004618 | -0.92 |
| IL1B | NA | -1.62278 | 1.708895 | -3.39322 | 0.00189 | 0.009675 | -1.8159 |
| STAT6 | NA | 1.613731 | 1.680794 | 4.712592 | 4.79E-05 | 0.00055 | 1.718642 |
| IL2RB | NA | -1.60221 | 3.06327 | -5.68389 | 2.93E-06 | 6.42E-05 | 4.447986 |
| S100B | NA | -1.57643 | -1.30126 | -3.80031 | 0.000627 | 0.004066 | -0.76565 |
| CD4 | NA | -1.56424 | 1.814422 | -10.1022 | 2.26E-11 | 1.03E-08 | 15.97785 |
| CXCL2 | NA | -1.54879 | 0.920736 | -2.66656 | 0.012022 | 0.040837 | -3.54124 |
| FCGR3A | NA | -1.51058 | 3.22262 | -2.97756 | 0.005569 | 0.022537 | -2.83051 |
| CD1D | NA | 1.475974 | 1.519314 | 5.532419 | 4.53E-06 | 8.94E-05 | 4.021268 |
| GAPDH | NA | 1.469782 | -1.27365 | 4.601337 | 6.59E-05 | 0.000705 | 1.409259 |
| PRKCQ | NA | -1.44776 | 0.239816 | -7.73198 | 9.47E-09 | 8.58E-07 | 10.07766 |
| CTNNB1 | NA | 1.424278 | -1.21031 | 7.816795 | 7.54E-09 | 7.56E-07 | 10.30174 |
| IDO1 | NA | -1.4106 | 1.977404 | -3.31638 | 0.002317 | 0.011309 | -2.00835 |
| TNFRSF8 | NA | -1.39602 | -1.03795 | -9.42691 | 1.17E-10 | 3.23E-08 | 14.37583 |
| IL6 | NA | -1.38437 | 0.095779 | -3.37405 | 0.001989 | 0.010067 | -1.86411 |
| CD33 | NA | -1.37604 | -0.9392 | -5.05433 | 1.79E-05 | 0.000261 | 2.675145 |
| GATA3 | NA | -1.36406 | -2.21473 | -7.15887 | 4.53E-08 | 2.85E-06 | 8.541153 |
| IGKC | NA | -1.34716 | 3.602631 | -2.9544 | 0.005904 | 0.023538 | -2.885 |
| SH2D1A | NA | -1.3224 | 1.090974 | -3.83124 | 0.000576 | 0.003805 | -0.684 |
| STAT4 | NA | -1.31569 | 1.889843 | -7.81223 | 7.63E-09 | 7.62E-07 | 10.28971 |
| CD40LG | NA | -1.31527 | 0.937201 | -7.45038 | 2.03E-08 | 1.56E-06 | 9.327438 |
| CCL21 | NA | -1.3126 | 3.739173 | -4.55757 | 7.47E-05 | 0.000774 | 1.287906 |
| CD1A | NA | -1.30631 | -0.61223 | -3.94694 | 0.000418 | 0.002978 | -0.37655 |
| CCR2 | NA | -1.30492 | 0.261207 | -4.48068 | 9.30E-05 | 0.000912 | 1.075217 |
| CD36 | NA | -1.29668 | 1.975697 | -2.66545 | 0.012054 | 0.040896 | -3.5437 |
| TLR10 | NA | 1.295199 | 4.131049 | 3.993418 | 0.000367 | 0.002694 | -0.25219 |
| CD70 | NA | 1.277207 | 0.50605 | 2.733822 | 0.010211 | 0.036027 | -3.3915 |
| TNFRSF13B | NA | 1.275703 | 1.37054 | 5.106442 | 1.54E-05 | 0.000233 | 2.8216 |

Table S1 (continued)

Table S1 (continued)

| | ID | logFC | AveExpr | t | P.Value | adj.P.Val | B |
|-----------|----|----------|----------|----------|----------|-----------|----------|
| MMP9 | NA | -1.27468 | 5.897325 | -3.54401 | 0.001262 | 0.007013 | -1.43257 |
| BACH2 | NA | -1.27377 | 2.574116 | -4.84936 | 3.24E-05 | 0.000406 | 2.100492 |
| KLRC1 | NA | -1.25373 | 0.29461 | -4.52109 | 8.28E-05 | 0.000836 | 1.186903 |
| VDR | NA | -1.24051 | -0.27167 | -5.9397 | 1.41E-06 | 3.65E-05 | 5.167443 |
| TNFRSF11A | NA | -1.21855 | -1.30586 | -5.89032 | 1.62E-06 | 4.03E-05 | 5.028735 |
| ANXA1 | NA | -1.21091 | -2.09344 | -3.04394 | 0.004703 | 0.019738 | -2.67308 |
| VTCN1 | NA | -1.19144 | -1.69193 | -15.7973 | 1.83E-16 | 8.97E-13 | 27.14305 |
| FOXC2 | NA | -1.17664 | 0.372438 | -7.75464 | 8.91E-09 | 8.34E-07 | 10.1376 |
| CD160 | NA | -1.15743 | 1.22249 | -5.00884 | 2.05E-05 | 0.000288 | 2.547412 |
| PLCG2 | NA | 1.150739 | 3.9067 | 4.384808 | 0.000122 | 0.001128 | 0.811097 |
| IL21R | NA | -1.1479 | 2.962281 | -5.99521 | 1.20E-06 | 3.23E-05 | 5.323265 |
| IL4 | NA | -1.14545 | 0.170558 | -6.00749 | 1.16E-06 | 3.15E-05 | 5.357705 |
| TJP1 | NA | -1.13645 | -1.23753 | -5.44306 | 5.86E-06 | 0.000109 | 3.769442 |
| TBX1 | NA | -1.13406 | -0.62632 | -4.95633 | 2.38E-05 | 0.000325 | 2.400096 |
| BIRC3 | NA | -1.13305 | 3.080678 | -5.8343 | 1.90E-06 | 4.59E-05 | 4.871251 |
| IRF5 | NA | 1.11283 | 2.176828 | 4.122411 | 0.000256 | 0.002035 | 0.095229 |
| OAS1 | NA | 1.097464 | 1.528267 | 3.793739 | 0.000639 | 0.004123 | -0.78296 |
| GIMAP5 | NA | -1.09656 | 4.022087 | -4.33814 | 0.000139 | 0.001253 | 0.682979 |
| LRRC56 | NA | 1.093445 | 0.865404 | 5.365731 | 7.32E-06 | 0.000129 | 3.551532 |
| KIT | NA | -1.09088 | -0.14316 | -3.28715 | 0.002503 | 0.012002 | -2.081 |
| SELL | NA | -1.09041 | 3.165146 | -3.9719 | 0.00039 | 0.00282 | -0.30982 |
| KLRD1 | NA | -1.08849 | 1.169257 | -5.43654 | 5.97E-06 | 0.00011 | 3.751062 |
| INPP5D | NA | 1.088297 | 3.944656 | 3.400601 | 0.001854 | 0.009534 | -1.79731 |
| LAT | NA | -1.07655 | 0.786705 | -4.53767 | 7.90E-05 | 0.000808 | 1.232803 |
| TLR5 | NA | -1.0705 | 1.672048 | -6.25855 | 5.66E-07 | 1.79E-05 | 6.060319 |
| B2M | NA | -1.06778 | 2.701368 | -6.22674 | 6.20E-07 | 1.93E-05 | 5.9715 |
| GH1 | NA | 1.048282 | 1.453235 | 3.884661 | 0.000497 | 0.003412 | -0.54242 |
| TNFSF13B | NA | -1.04499 | 3.346657 | -4.27902 | 0.000165 | 0.001429 | 0.521152 |
| NCF4 | NA | 1.037926 | 2.519039 | 4.39403 | 0.000119 | 0.001107 | 0.836451 |
| ZAP70 | NA | -1.03726 | 0.261435 | -3.27172 | 0.002606 | 0.012376 | -2.11924 |
| PPARG | NA | -1.03672 | -1.66193 | -3.58493 | 0.00113 | 0.006413 | -1.32733 |
| BCL11B | NA | -1.03458 | -0.07582 | -5.04123 | 1.86E-05 | 0.000267 | 2.638347 |
| IL4R | NA | -1.03021 | 1.482361 | -3.62299 | 0.001019 | 0.005931 | -1.22901 |
| AHR | NA | -1.02452 | -0.63013 | -4.49611 | 8.90E-05 | 0.000884 | 1.117839 |
| CD3E | NA | -1.01623 | 0.719171 | -8.45625 | 1.39E-09 | 2.07E-07 | 11.96162 |
| BLK | NA | 1.014979 | 4.408021 | 3.329321 | 0.00224 | 0.010997 | -1.97608 |
| PDCD1 | NA | -1.01371 | 3.137734 | -3.27968 | 0.002553 | 0.012168 | -2.09954 |
| PNP | NA | -1.00905 | -0.84419 | -4.49041 | 9.04E-05 | 0.000893 | 1.102105 |
| CHD7 | NA | 1.002604 | 0.686429 | 6.475627 | 3.06E-07 | 1.14E-05 | 6.664684 |
| PMP22 | NA | -0.99542 | -1.22967 | -3.47702 | 0.001511 | 0.00811 | -1.60377 |
| BRCA2 | NA | 0.990579 | 0.081107 | 4.113416 | 0.000263 | 0.002072 | 0.0709 |
| SIGLEC10 | NA | 0.988479 | 2.471812 | 5.397289 | 6.68E-06 | 0.000119 | 3.640456 |
| CCR5 | NA | -0.98833 | 4.984985 | -2.87467 | 0.007212 | 0.02749 | -3.07071 |
| HLA-DRB1 | NA | -0.98725 | 4.689961 | -2.98943 | 0.005404 | 0.021992 | -2.80251 |
| LCP2 | NA | -0.98693 | 1.750423 | -5.69084 | 2.87E-06 | 6.36E-05 | 4.46757 |
| SELP | NA | -0.98506 | 2.442633 | -3.4544 | 0.001606 | 0.008483 | -1.66126 |
| CXCR3 | NA | -0.98376 | 2.615984 | -4.709 | 4.84E-05 | 0.000554 | 1.708635 |
| IL37 | NA | -0.98269 | 0.008787 | -6.20562 | 6.58E-07 | 2.02E-05 | 5.912504 |
| CD8A | NA | -0.97052 | 3.923451 | -3.73781 | 0.000745 | 0.004649 | -0.92991 |
| C1QC | NA | -0.96211 | 2.227869 | -2.79452 | 0.008799 | 0.032085 | -3.25444 |
| IRF9 | NA | 0.958441 | 2.309949 | 4.949929 | 2.42E-05 | 0.000329 | 2.38214 |
| CNR2 | NA | 0.951777 | 4.760115 | 4.927168 | 2.59E-05 | 0.000346 | 2.318339 |
| CCL18 | NA | -0.94051 | 3.574234 | -3.35838 | 0.002074 | 0.010362 | -1.90341 |
| RAB27A | NA | -0.9346 | -0.54258 | -3.92954 | 0.000439 | 0.003097 | -0.42298 |
| GIMAP6 | NA | -0.93129 | 3.846123 | -4.46624 | 9.69E-05 | 0.000941 | 1.035358 |
| CD34 | NA | -0.92618 | 1.711086 | -4.3874 | 0.000121 | 0.001122 | 0.818222 |
| C1QA | NA | -0.92356 | 3.843773 | -4.09104 | 0.00028 | 0.002176 | 0.010449 |

Table S1 (continued)

Table S1 (continued)

| | ID | logFC | AveExpr | t | P.Value | adj.P.Val | B |
|-----------|----|----------|----------|----------|----------|-----------|----------|
| CD14 | NA | -0.9129 | 2.202917 | -3.74757 | 0.000725 | 0.004555 | -0.90433 |
| MIF | NA | 0.911591 | -0.49893 | 3.544576 | 0.00126 | 0.007005 | -1.43112 |
| TLR7 | NA | 0.911146 | 2.754413 | 3.078496 | 0.004305 | 0.018438 | -2.5904 |
| FCER2 | NA | -0.90633 | 0.992494 | -4.36853 | 0.000128 | 0.001171 | 0.766363 |
| ITGB1 | NA | -0.90622 | -1.4699 | -3.56434 | 0.001195 | 0.006701 | -1.38035 |
| CD2 | NA | -0.90234 | 6.251141 | -2.67307 | 0.011835 | 0.040408 | -3.52685 |
| SLPI | NA | -0.89699 | -2.37223 | -2.57386 | 0.01501 | 0.048378 | -3.74378 |
| TRIM22 | NA | 0.885917 | 4.37721 | 4.70417 | 4.91E-05 | 0.00056 | 1.695182 |
| CFI | NA | -0.87805 | -2.15583 | -3.39438 | 0.001885 | 0.009662 | -1.81299 |
| TFRC | NA | 0.872207 | -2.22034 | 3.280074 | 0.00255 | 0.012167 | -2.09856 |
| IL1R1 | NA | -0.86491 | 0.260082 | -4.04383 | 0.000319 | 0.002413 | -0.11681 |
| LIFR | NA | -0.86474 | 0.745032 | -3.12225 | 0.003847 | 0.016877 | -2.485 |
| IL32 | NA | -0.86228 | 1.229632 | -4.30359 | 0.000154 | 0.001353 | 0.588347 |
| RASGRP1 | NA | -0.85362 | 1.243609 | -4.63016 | 6.07E-05 | 0.000661 | 1.489301 |
| TNFSF10 | NA | -0.84765 | 2.653682 | -2.95945 | 0.00583 | 0.023322 | -2.87314 |
| ACP5 | NA | 0.845369 | 3.63768 | 3.415095 | 0.001784 | 0.009248 | -1.76075 |
| DHX58 | NA | 0.844494 | 1.709388 | 3.817275 | 0.000599 | 0.003925 | -0.72088 |
| HLA-DPB1 | NA | -0.84243 | 4.437383 | -2.73515 | 0.010178 | 0.035937 | -3.38852 |
| CEACAM1 | NA | 0.837441 | 0.215366 | 4.285107 | 0.000162 | 0.00141 | 0.53779 |
| MYD88 | NA | 0.829907 | 0.863695 | 4.639356 | 5.91E-05 | 0.000648 | 1.514847 |
| NT5E | NA | -0.82456 | -2.35972 | -8.54034 | 1.11E-09 | 1.77E-07 | 12.17588 |
| HLA-A | NA | 0.821712 | 1.440567 | 4.914002 | 2.69E-05 | 0.000357 | 2.281449 |
| FLT3LG | NA | -0.81824 | 1.010694 | -5.55999 | 4.18E-06 | 8.42E-05 | 4.098962 |
| HLA-G | NA | -0.80815 | 1.322908 | -3.29063 | 0.00248 | 0.01191 | -2.07238 |
| CTLA4 | NA | -0.80067 | 1.12236 | -3.66027 | 0.000921 | 0.005479 | -1.13229 |
| FYN | NA | -0.79912 | 1.300661 | -3.71636 | 0.00079 | 0.004867 | -0.98606 |
| APOBEC3G | NA | 0.795667 | 2.51189 | 6.453157 | 3.26E-07 | 1.19E-05 | 6.602281 |
| BTK | NA | 0.790374 | 3.168331 | 4.390526 | 0.00012 | 0.001116 | 0.826817 |
| IRF4 | NA | 0.789946 | 1.3818 | 5.221218 | 1.11E-05 | 0.000181 | 3.144503 |
| CD244 | NA | -0.78977 | 1.420861 | -5.69625 | 2.83E-06 | 6.28E-05 | 4.482795 |
| TNFRSF13C | NA | 0.780818 | 3.014768 | 4.288055 | 0.000161 | 0.0014 | 0.54585 |
| NFATC1 | NA | 0.776243 | 2.6356 | 3.074417 | 0.00435 | 0.018554 | -2.60019 |
| IL6ST | NA | -0.76866 | 0.025186 | -5.06483 | 1.74E-05 | 0.000255 | 2.704643 |
| TLR6 | NA | 0.760936 | 2.293283 | 4.163652 | 0.000228 | 0.001867 | 0.206977 |
| TLR9 | NA | 0.757002 | 1.905166 | 3.975975 | 0.000386 | 0.002796 | -0.29891 |
| ADA | NA | -0.74742 | -2.20116 | -3.95125 | 0.000413 | 0.002947 | -0.36504 |
| C1QB | NA | -0.74467 | 4.491521 | -2.88129 | 0.007094 | 0.02715 | -3.0554 |
| SAMHD1 | NA | -0.74074 | 0.891706 | -4.18724 | 0.000213 | 0.001776 | 0.271018 |
| BRCA1 | NA | 0.734971 | -1.07007 | 2.971891 | 0.005649 | 0.022759 | -2.84388 |
| ADRB2 | NA | 0.73158 | 2.389627 | 4.485458 | 9.17E-05 | 0.000903 | 1.088421 |
| SOCS3 | NA | -0.73112 | 0.65631 | -3.19932 | 0.00315 | 0.014456 | -2.29748 |
| IKZF3 | NA | 0.729694 | 2.5919 | 4.390113 | 0.00012 | 0.001117 | 0.825681 |
| CSF2 | NA | -0.72908 | 0.023115 | -5.21892 | 1.12E-05 | 0.000181 | 3.138038 |
| BLNK | NA | 0.718702 | 3.597938 | 3.703576 | 0.000818 | 0.005005 | -1.01946 |
| IL21 | NA | -0.71315 | 0.542043 | -3.60257 | 0.001077 | 0.006179 | -1.28182 |
| IL15 | NA | -0.69718 | 1.793104 | -2.94013 | 0.006121 | 0.024157 | -2.91844 |
| DKC1 | NA | 0.693543 | -0.83802 | 4.367251 | 0.000128 | 0.001175 | 0.762863 |
| SOCS1 | NA | -0.68437 | 1.280982 | -3.4288 | 0.001719 | 0.008954 | -1.72611 |
| LILRB2 | NA | -0.68008 | 3.184239 | -3.8958 | 0.000482 | 0.003335 | -0.51281 |
| DPP4 | NA | -0.6703 | -0.14517 | -4.01527 | 0.000346 | 0.002573 | -0.19356 |
| TNFRSF1A | NA | -0.66402 | -0.55851 | -5.02528 | 1.95E-05 | 0.000278 | 2.593549 |
| DNMT3B | NA | -0.66108 | -4.79445 | -3.54019 | 0.001275 | 0.007072 | -1.44238 |
| CHRNE | NA | -0.66003 | 0.821395 | -5.68569 | 2.91E-06 | 6.41E-05 | 4.45305 |
| RAG1 | NA | -0.65538 | -1.29307 | -5.95581 | 1.34E-06 | 3.52E-05 | 5.212684 |
| TNFSF13 | NA | 0.653941 | 1.504479 | 3.748307 | 0.000724 | 0.004549 | -0.90239 |
| PLCG1 | NA | 0.639548 | 0.076978 | 3.962725 | 0.0004 | 0.002878 | -0.33436 |
| RBCK1 | NA | 0.637127 | -0.20716 | 5.121594 | 1.48E-05 | 0.000227 | 2.8642 |

Table S1 (continued)

Table S1 (continued)

| | ID | logFC | AveExpr | t | P.Value | adj.P.Val | B |
|--|---------|----------|----------|----------|----------|-----------|----------|
| | NPM1 | 0.635399 | -0.49527 | 4.144098 | 0.000241 | 0.001943 | 0.153955 |
| | COMT | -0.63459 | -1.08445 | -5.09036 | 1.62E-05 | 0.000242 | 2.776388 |
| | LYN | 0.633134 | 3.61532 | 3.922244 | 0.000448 | 0.003146 | -0.44242 |
| | NCF1 | 0.6328 | 4.967645 | 3.133197 | 0.003739 | 0.016492 | -2.4585 |
| | CARD11 | 0.631842 | 2.292534 | 2.760075 | 0.009576 | 0.034312 | -3.33244 |
| | GP1BA | -0.63143 | 2.998942 | -3.37797 | 0.001969 | 0.009991 | -1.85425 |
| | CD46 | 0.624047 | -0.7421 | 3.546193 | 0.001255 | 0.00698 | -1.42697 |
| | DEF6 | 0.619497 | 1.853448 | 4.181311 | 0.000217 | 0.001799 | 0.254921 |
| | TYK2 | 0.616929 | 0.348497 | 5.636278 | 3.36E-06 | 7.17E-05 | 4.313892 |
| | TLR4 | 0.616436 | 2.664767 | 3.32911 | 0.002241 | 0.011001 | -1.97661 |
| | ITGB2 | -0.6118 | 2.108854 | -3.69272 | 0.000843 | 0.005113 | -1.0478 |
| | NCF2 | -0.60804 | 3.299559 | -2.92001 | 0.006438 | 0.025187 | -2.96545 |
| | IFNGR2 | 0.607834 | 1.286626 | 7.400884 | 2.33E-08 | 1.72E-06 | 9.194598 |
| | FCRL3 | 0.60699 | 3.668538 | 3.123433 | 0.003835 | 0.016846 | -2.48213 |
| | KAT5 | 0.606965 | 0.372061 | 5.764101 | 2.33E-06 | 5.39E-05 | 4.673788 |
| | CD59 | -0.60623 | -0.89629 | -3.88583 | 0.000495 | 0.003405 | -0.53931 |
| | GP1BB | -0.59991 | -2.18688 | -2.8757 | 0.007194 | 0.027459 | -3.06832 |
| | HSPD1 | 0.597155 | -1.48124 | 2.748175 | 0.009859 | 0.035108 | -3.35925 |
| | TNFAIP3 | 0.594758 | 1.568957 | 3.065633 | 0.00445 | 0.01892 | -2.62124 |
| | NCKAP1L | 0.591336 | 2.530371 | 3.878122 | 0.000506 | 0.003454 | -0.55978 |
| | IRF2BP2 | 0.590158 | -0.16871 | 3.702083 | 0.000822 | 0.005021 | -1.02336 |
| | SYK | 0.590153 | 4.274225 | 3.773773 | 0.000675 | 0.004302 | -0.83551 |

Table S2 The 211 differentially expressed immune-related genes between the tumor and normal samples (GSE45717)

| | ID | logFC | AveExpr | t | P.Value | adj.P.Val | B |
|----------|----|----------|----------|----------|----------|-----------|----------|
| ITGB3 | NA | -5.37863 | 9.282084 | -12.1789 | 4.36E-09 | 2.42E-06 | 11.25423 |
| PF4 | NA | -4.54333 | 9.332691 | -13.2757 | 1.35E-09 | 1.42E-06 | 12.36296 |
| IL1B | NA | -4.43291 | 8.880118 | -7.09975 | 4.02E-06 | 0.000153 | 4.527879 |
| IL7R | NA | -4.249 | 8.502605 | -4.87544 | 0.000213 | 0.002162 | 0.531446 |
| CD36 | NA | -4.16718 | 6.948799 | -9.56859 | 1.04E-07 | 1.77E-05 | 8.16905 |
| CCL5 | NA | -4.03612 | 9.149171 | -9.76752 | 8.01E-08 | 1.55E-05 | 8.429306 |
| SELP | NA | -3.87931 | 8.479435 | -9.02883 | 2.18E-07 | 2.52E-05 | 7.439505 |
| SAMHD1 | NA | -3.82632 | 9.042345 | -6.94489 | 5.19E-06 | 0.000176 | 4.272033 |
| ANXA1 | NA | -3.73108 | 8.450661 | -5.81137 | 3.69E-05 | 0.000639 | 2.295266 |
| CLU | NA | -3.66222 | 8.530844 | -14.151 | 5.64E-10 | 1.08E-06 | 13.18054 |
| CX3CR1 | NA | -3.38992 | 7.578126 | -6.24897 | 1.69E-05 | 0.000377 | 3.080049 |
| CCND1 | NA | 3.385463 | 8.716417 | 26.79274 | 6.63E-14 | 1.18E-09 | 20.70443 |
| CD3G | NA | -3.35482 | 8.416163 | -4.69587 | 0.000301 | 0.002801 | 0.181336 |
| S100A8 | NA | -3.34155 | 9.093329 | -5.71977 | 4.36E-05 | 0.000717 | 2.127642 |
| ITGA2B | NA | -3.22657 | 8.929751 | -9.70917 | 8.66E-08 | 1.61E-05 | 8.353445 |
| PTGS2 | NA | -3.16521 | 6.811528 | -5.61271 | 5.30E-05 | 0.000826 | 1.930259 |
| LTF | NA | -3.02304 | 7.613551 | -5.10624 | 0.000137 | 0.001598 | 0.976382 |
| GIMAP4 | NA | -2.94202 | 7.035267 | -5.79581 | 3.80E-05 | 0.000652 | 2.266878 |
| TNFSF4 | NA | -2.90067 | 7.794499 | -8.12742 | 8.05E-07 | 5.57E-05 | 6.140678 |
| ITK | NA | -2.88838 | 7.921964 | -4.32638 | 0.000624 | 0.004715 | -0.54828 |
| CCR2 | NA | -2.82852 | 6.878606 | -8.73135 | 3.32E-07 | 3.29E-05 | 7.022303 |
| CD96 | NA | -2.8022 | 7.449843 | -6.064 | 2.35E-05 | 0.000477 | 2.751605 |
| CD3E | NA | -2.76318 | 7.96063 | -4.77852 | 0.000256 | 0.002488 | 0.342871 |
| ITGB1 | NA | -2.73255 | 9.618882 | -8.83924 | 2.85E-07 | 3.06E-05 | 7.174877 |
| S100A12 | NA | -2.7249 | 6.989337 | -5.00818 | 0.000165 | 0.001799 | 0.788073 |
| LCP2 | NA | -2.70212 | 8.399993 | -6.08957 | 2.24E-05 | 0.00046 | 2.797305 |
| CD3D | NA | -2.70133 | 7.207194 | -5.04037 | 0.000155 | 0.001735 | 0.850017 |
| BTLA | NA | -2.698 | 8.501206 | -8.05301 | 9.00E-07 | 6.06E-05 | 6.028756 |
| GIMAP5 | NA | -2.69207 | 7.938385 | -4.72824 | 0.000283 | 0.002669 | 0.244681 |
| GP1BA | NA | -2.67157 | 7.777197 | -8.40592 | 5.32E-07 | 4.32E-05 | 6.553109 |
| AHR | NA | -2.57682 | 7.216585 | -6.65858 | 8.38E-06 | 0.000238 | 3.790027 |
| CCR4 | NA | -2.55546 | 7.303257 | -8.32496 | 6.00E-07 | 4.63E-05 | 6.434264 |
| CCL3 | NA | -2.53764 | 8.748295 | -3.78164 | 0.001864 | 0.010559 | -1.6387 |
| CD4 | NA | -2.53585 | 7.654467 | -6.42942 | 1.24E-05 | 0.000306 | 3.395781 |
| CD14 | NA | -2.51747 | 8.712835 | -4.10963 | 0.000962 | 0.006429 | -0.98074 |
| BMP6 | NA | -2.50688 | 8.154067 | -10.2145 | 4.49E-08 | 1.07E-05 | 8.997901 |
| CLEC12A | NA | -2.50003 | 6.202993 | -5.0362 | 0.000156 | 0.001747 | 0.841986 |
| PRKCQ | NA | -2.49565 | 7.296953 | -5.6023 | 5.40E-05 | 0.000836 | 1.910986 |
| CD2 | NA | -2.4599 | 7.132974 | -4.94656 | 0.000185 | 0.00195 | 0.669173 |
| NT5E | NA | -2.40497 | 6.38169 | -5.9013 | 3.14E-05 | 0.000573 | 2.458732 |
| ITGB2 | NA | -2.34266 | 9.436504 | -7.08522 | 4.12E-06 | 0.000154 | 4.504006 |
| HBA1 | NA | -2.29516 | 9.073168 | -6.53698 | 1.03E-05 | 0.000269 | 3.581762 |
| CLEC7A | NA | -2.19935 | 6.450692 | -4.20005 | 0.000802 | 0.005612 | -0.80002 |
| CD86 | NA | -2.15934 | 7.156517 | -8.63911 | 3.79E-07 | 3.47E-05 | 6.890694 |
| CCL3L1 | NA | -2.11832 | 9.104742 | -3.3984 | 0.004062 | 0.018901 | -2.4073 |
| FLT3 | NA | -2.11233 | 6.342857 | -6.17395 | 1.93E-05 | 0.000413 | 2.947432 |
| RNASE3 | NA | -2.08258 | 6.888763 | -5.73555 | 4.23E-05 | 0.000702 | 2.156601 |
| GZMB | NA | -2.0757 | 7.8351 | -5.87563 | 3.29E-05 | 0.000587 | 2.412191 |
| ITGAX | NA | -2.07544 | 8.022211 | -7.61724 | 1.76E-06 | 9.10E-05 | 5.358229 |
| CD28 | NA | -2.05421 | 6.928059 | -4.48494 | 0.000456 | 0.003757 | -0.23383 |
| LAT | NA | -2.03298 | 8.414415 | -6.73873 | 7.32E-06 | 0.000217 | 3.926146 |
| PTX3 | NA | -1.98255 | 6.018638 | -3.53198 | 0.003095 | 0.015427 | -2.13992 |
| ICOSLG | NA | 1.979555 | 8.621774 | 7.438971 | 2.33E-06 | 0.000108 | 5.076418 |
| SH2D1A | NA | -1.94979 | 6.862683 | -4.35578 | 0.000588 | 0.004519 | -0.48984 |
| SERPINA1 | NA | -1.92485 | 7.629112 | -3.53752 | 0.003061 | 0.015303 | -2.12883 |
| S100A9 | NA | -1.92423 | 8.190146 | -4.10897 | 0.000963 | 0.006433 | -0.98208 |
| CLEC4E | NA | -1.91313 | 5.351123 | -3.08341 | 0.007705 | 0.030934 | -3.03254 |

Table S2 (continued)

Table S2 (continued)

| | ID | logFC | AveExpr | t | P.Value | adj.P.Val | B |
|----------|----|----------|----------|----------|----------|-----------|----------|
| MMP8 | NA | -1.90459 | 5.111232 | -4.04692 | 0.001091 | 0.007057 | -1.1063 |
| SELL | NA | -1.88485 | 10.06285 | -4.14451 | 0.000897 | 0.006095 | -0.91098 |
| SLAMF6 | NA | -1.86912 | 8.830733 | -4.90687 | 0.0002 | 0.002064 | 0.592388 |
| RASGRP1 | NA | -1.8472 | 8.340094 | -5.30391 | 9.40E-05 | 0.001222 | 1.352524 |
| LCN2 | NA | -1.84473 | 7.622743 | -6.53726 | 1.03E-05 | 0.000269 | 3.582244 |
| CD40LG | NA | -1.79776 | 5.554132 | -5.47834 | 6.79E-05 | 0.000968 | 1.680379 |
| ICOS | NA | -1.7787 | 5.936771 | -4.05473 | 0.001074 | 0.00697 | -1.09067 |
| CCL20 | NA | -1.76714 | 5.694856 | -3.38273 | 0.004194 | 0.019352 | -2.4386 |
| DPP4 | NA | -1.76714 | 5.994984 | -4.05815 | 0.001067 | 0.006937 | -1.08382 |
| IL1RN | NA | -1.75618 | 6.362322 | -3.88062 | 0.001526 | 0.009042 | -1.43992 |
| KLRD1 | NA | -1.74808 | 6.187355 | -3.66221 | 0.002375 | 0.012638 | -1.8786 |
| SLAMF1 | NA | -1.74006 | 6.539589 | -7.03534 | 4.47E-06 | 0.000162 | 4.421877 |
| NLRP3 | NA | -1.73482 | 7.721816 | -3.06459 | 0.008004 | 0.031789 | -3.06955 |
| NCF2 | NA | -1.72569 | 8.456846 | -3.74993 | 0.001988 | 0.011048 | -1.70242 |
| IRAK3 | NA | -1.7138 | 7.035374 | -2.92191 | 0.01068 | 0.039619 | -3.34856 |
| TREM1 | NA | -1.70261 | 6.658125 | -3.7132 | 0.002142 | 0.011727 | -1.7762 |
| GIMAP6 | NA | -1.65279 | 7.515436 | -4.43993 | 0.000498 | 0.004002 | -0.3229 |
| TNFSF10 | NA | -1.64713 | 7.308011 | -8.81704 | 2.94E-07 | 3.10E-05 | 7.143604 |
| IL32 | NA | -1.63275 | 8.203102 | -4.378 | 0.000563 | 0.004378 | -0.44571 |
| IL4R | NA | -1.59746 | 9.598201 | -5.14806 | 0.000126 | 0.001502 | 1.056345 |
| TLR8 | NA | -1.59624 | 6.294023 | -4.37062 | 0.000571 | 0.004427 | -0.46035 |
| IL6ST | NA | -1.58958 | 8.578379 | -3.31702 | 0.004794 | 0.021454 | -2.56967 |
| ARPC1B | NA | -1.58672 | 10.44459 | -9.99753 | 5.93E-08 | 1.29E-05 | 8.724643 |
| CCR1 | NA | -1.57827 | 6.637221 | -4.97716 | 0.000175 | 0.001875 | 0.728278 |
| MPL | NA | -1.57569 | 7.403507 | -6.36176 | 1.39E-05 | 0.00033 | 3.277934 |
| TNF | NA | -1.57293 | 7.526785 | -2.78176 | 0.014154 | 0.049174 | -3.61925 |
| TYROBP | NA | -1.56344 | 8.818782 | -4.70668 | 0.000295 | 0.002765 | 0.202498 |
| PIK3CA | NA | 1.546402 | 8.969081 | 6.581673 | 9.54E-06 | 0.000255 | 3.658555 |
| LEPR | NA | -1.52806 | 7.152895 | -5.6974 | 4.54E-05 | 0.000736 | 2.086524 |
| TNFSF13B | NA | -1.52087 | 6.867676 | -6.82748 | 6.31E-06 | 0.000198 | 4.075787 |
| EIF2AK2 | NA | 1.515311 | 8.096611 | 5.431879 | 7.40E-05 | 0.001028 | 1.593435 |
| CD163 | NA | -1.5135 | 6.305524 | -4.17903 | 0.000837 | 0.005798 | -0.842 |
| IL6R | NA | -1.50555 | 7.760218 | -6.70063 | 7.80E-06 | 0.000229 | 3.861562 |
| PRF1 | NA | -1.50305 | 8.539865 | -3.06773 | 0.007954 | 0.031651 | -3.06339 |
| CD33 | NA | -1.50169 | 7.25594 | -5.90603 | 3.11E-05 | 0.000571 | 2.467306 |
| CSF3R | NA | -1.47402 | 7.603482 | -3.79902 | 0.0018 | 0.010297 | -1.6038 |
| CD244 | NA | -1.43246 | 6.94105 | -4.52224 | 0.000423 | 0.003584 | -0.16012 |
| FHL1 | NA | -1.4267 | 7.816043 | -4.44131 | 0.000497 | 0.004001 | -0.32016 |
| CD69 | NA | 1.418387 | 10.49255 | 4.496482 | 0.000445 | 0.003711 | -0.21101 |
| CD247 | NA | -1.4004 | 7.42604 | -4.38534 | 0.000555 | 0.004343 | -0.43114 |
| IL18 | NA | -1.39147 | 4.543753 | -4.94845 | 0.000185 | 0.001945 | 0.67284 |
| CFP | NA | -1.32741 | 7.621652 | -4.96215 | 0.00018 | 0.00191 | 0.6993 |
| ICAM2 | NA | -1.32045 | 8.89803 | -7.16752 | 3.60E-06 | 0.000143 | 4.638758 |
| MAPK8 | NA | 1.315296 | 8.65948 | 7.362504 | 2.63E-06 | 0.000117 | 4.954177 |
| IL2RB | NA | -1.3085 | 7.507569 | -3.93161 | 0.001376 | 0.008374 | -1.33754 |
| BCL11B | NA | -1.28746 | 7.865818 | -3.69084 | 0.002241 | 0.012115 | -1.8211 |
| MEFV | NA | -1.26178 | 7.311186 | -4.30545 | 0.00065 | 0.00484 | -0.58992 |
| TGFB1 | NA | -1.24846 | 9.504369 | -5.37691 | 8.20E-05 | 0.0011 | 1.490208 |
| CXCL2 | NA | -1.23011 | 6.506754 | -3.14235 | 0.006837 | 0.028207 | -2.91631 |
| CLEC4D | NA | -1.21259 | 5.385323 | -2.94285 | 0.010238 | 0.038356 | -3.30781 |
| BCL2L1 | NA | -1.21122 | 8.559229 | -5.05795 | 0.00015 | 0.001695 | 0.88378 |
| MAPK14 | NA | -1.19622 | 8.031008 | -9.08068 | 2.03E-07 | 2.52E-05 | 7.511098 |
| TLR10 | NA | -1.18319 | 8.48787 | -3.10957 | 0.007307 | 0.029673 | -2.981 |
| CYCS | NA | 1.171775 | 9.062436 | 5.585735 | 5.57E-05 | 0.00085 | 1.880293 |
| ITGAL | NA | -1.16613 | 9.126593 | -4.61318 | 0.000354 | 0.003155 | 0.019041 |
| GAPDH | NA | -1.16111 | 11.47616 | -6.61936 | 8.95E-06 | 0.000248 | 3.723092 |
| TGFBR1 | NA | 1.160826 | 9.061441 | 9.783223 | 7.85E-08 | 1.54E-05 | 8.449662 |

Table S2 (continued)

Table S2 (continued)

| | ID | logFC | AveExpr | t | P.Value | adj.P.Val | B |
|-----------|----|----------|----------|----------|----------|-----------|----------|
| CASP1 | NA | -1.14989 | 8.561087 | -4.30337 | 0.000653 | 0.004852 | -0.59405 |
| LYST | NA | -1.13961 | 8.787217 | -4.75473 | 0.000269 | 0.002566 | 0.296439 |
| IL12A | NA | 1.139438 | 6.581383 | 4.011327 | 0.001172 | 0.007426 | -1.17764 |
| CD8A | NA | -1.13183 | 7.824094 | -3.63353 | 0.002518 | 0.013188 | -1.93619 |
| PSMB9 | NA | -1.12374 | 9.770962 | -6.81569 | 6.43E-06 | 0.0002 | 4.055979 |
| TNFRSF13C | NA | 1.118974 | 9.568466 | 4.604012 | 0.00036 | 0.003199 | 0.001017 |
| NLRP12 | NA | -1.11405 | 6.557306 | -3.85129 | 0.001619 | 0.009464 | -1.4988 |
| TNFRSF1B | NA | -1.10266 | 8.636796 | -3.92089 | 0.001406 | 0.008511 | -1.35906 |
| IL1A | NA | -1.08698 | 4.939777 | -3.59986 | 0.002696 | 0.013946 | -2.00378 |
| IRF4 | NA | 1.073555 | 8.885989 | 4.273535 | 0.000693 | 0.005049 | -0.65347 |
| CXCR5 | NA | 1.069492 | 8.405519 | 3.080183 | 0.007755 | 0.031063 | -3.03888 |
| JUN | NA | 1.063351 | 9.383574 | 2.975199 | 0.009591 | 0.036467 | -3.24472 |
| STAT5B | NA | -1.06053 | 8.665859 | -8.0379 | 9.21E-07 | 6.08E-05 | 6.005928 |
| RHD | NA | -1.06008 | 6.32956 | -3.67283 | 0.002325 | 0.012449 | -1.85729 |
| NLRC4 | NA | -1.06006 | 5.877551 | -3.52258 | 0.003155 | 0.015639 | -2.15877 |
| U2AF1 | NA | 1.053571 | 8.600477 | 5.92226 | 3.02E-05 | 0.00056 | 2.496672 |
| NOD2 | NA | -1.0413 | 6.729926 | -5.20923 | 0.000112 | 0.001386 | 1.172941 |
| FAS | NA | -1.04048 | 7.18275 | -7.79719 | 1.33E-06 | 7.70E-05 | 5.638266 |
| STXBP2 | NA | -1.02858 | 9.039753 | -5.76589 | 4.01E-05 | 0.00068 | 2.21218 |
| PYCARD | NA | -1.02256 | 7.90997 | -6.20969 | 1.81E-05 | 0.000394 | 3.010707 |
| TNFRSF1A | NA | -1.01803 | 7.468659 | -4.49901 | 0.000443 | 0.003698 | -0.20602 |
| ADAM17 | NA | 0.994027 | 9.017996 | 5.945519 | 2.90E-05 | 0.00055 | 2.538698 |
| P2RX7 | NA | -0.98528 | 7.073159 | -4.3246 | 0.000626 | 0.004726 | -0.55182 |
| CD300LF | NA | -0.98518 | 6.967653 | -3.98428 | 0.001238 | 0.007717 | -1.23187 |
| REL | NA | 0.981528 | 10.10981 | 3.5198 | 0.003173 | 0.015701 | -2.16434 |
| CORO1A | NA | -0.97808 | 10.61024 | -6.19808 | 1.85E-05 | 0.000401 | 2.990179 |
| IKBKE | NA | -0.9773 | 7.853331 | -8.84669 | 2.82E-07 | 3.06E-05 | 7.185369 |
| SPN | NA | -0.97476 | 8.024771 | -3.77904 | 0.001874 | 0.01059 | -1.64393 |
| CXCR4 | NA | 0.971547 | 11.84997 | 7.493145 | 2.14E-06 | 0.000101 | 5.162526 |
| CXCR3 | NA | -0.96781 | 7.038224 | -6.40853 | 1.28E-05 | 0.000314 | 3.359473 |
| UNC13D | NA | -0.96752 | 8.096089 | -7.86786 | 1.19E-06 | 7.17E-05 | 5.747024 |
| RAC2 | NA | -0.96029 | 9.718136 | -4.06788 | 0.001046 | 0.006829 | -1.06432 |
| IL17RA | NA | -0.95491 | 8.60198 | -5.18284 | 0.000118 | 0.00143 | 1.122703 |
| PRKCD | NA | -0.93259 | 9.194209 | -3.5272 | 0.003125 | 0.015527 | -2.1495 |
| DKC1 | NA | 0.924868 | 8.389842 | 4.892243 | 0.000206 | 0.002107 | 0.564034 |
| CD274 | NA | 0.924374 | 5.406502 | 4.632154 | 0.000341 | 0.003074 | 0.05634 |
| IKZF1 | NA | -0.9227 | 9.665849 | -4.8931 | 0.000205 | 0.002106 | 0.565688 |
| ITGA4 | NA | -0.91598 | 9.499474 | -4.00554 | 0.001186 | 0.007497 | -1.18924 |
| SLC11A1 | NA | -0.91573 | 7.597137 | -3.18038 | 0.006329 | 0.026476 | -2.84111 |
| VDR | NA | -0.91389 | 6.48895 | -4.41267 | 0.000526 | 0.004175 | -0.37691 |
| TFRC | NA | 0.903827 | 9.118023 | 3.223724 | 0.005795 | 0.024816 | -2.75519 |
| CIITA | NA | -0.90006 | 9.882884 | -4.06864 | 0.001044 | 0.006825 | -1.0628 |
| LILRB2 | NA | -0.89767 | 8.009604 | -3.53939 | 0.003049 | 0.015257 | -2.12506 |
| HLA-DPB1 | NA | -0.89263 | 11.35136 | -6.1894 | 1.88E-05 | 0.000405 | 2.974795 |
| HAVCR2 | NA | -0.8916 | 6.33564 | -3.17036 | 0.006459 | 0.026884 | -2.86093 |
| HLA-E | NA | -0.88235 | 11.74065 | -7.12533 | 3.86E-06 | 0.00015 | 4.569807 |
| TLR5 | NA | -0.88043 | 6.488195 | -4.29983 | 0.000658 | 0.004872 | -0.60111 |
| TNFRSF17 | NA | -0.87403 | 5.726458 | -2.94932 | 0.010105 | 0.037978 | -3.2952 |
| CD70 | NA | 0.873658 | 7.5497 | 3.533456 | 0.003086 | 0.015399 | -2.13697 |
| CD55 | NA | 0.867373 | 9.832008 | 5.857237 | 3.40E-05 | 0.0006 | 2.378784 |
| ADA | NA | -0.8651 | 7.532385 | -5.58546 | 5.57E-05 | 0.00085 | 1.879776 |
| BRCA2 | NA | 0.86313 | 5.54983 | 3.562984 | 0.002906 | 0.014728 | -2.07775 |
| NRAS | NA | 0.856522 | 9.616677 | 7.072746 | 4.20E-06 | 0.000156 | 4.483505 |
| JAK3 | NA | -0.85485 | 8.678183 | -5.90294 | 3.13E-05 | 0.000573 | 2.46171 |
| RAB27A | NA | -0.85437 | 8.000761 | -4.46539 | 0.000474 | 0.003854 | -0.27249 |
| ITGAM | NA | -0.85256 | 7.573397 | -3.64884 | 0.002441 | 0.012867 | -1.90544 |
| VWF | NA | -0.85233 | 6.556426 | -4.86509 | 0.000217 | 0.002194 | 0.511358 |

Table S2 (continued)

Table S2 (continued)

| | ID | logFC | AveExpr | t | P.Value | adj.P.Val | B |
|----------|----|----------|----------|----------|----------|-----------|----------|
| LILRB1 | NA | -0.8509 | 8.211945 | -2.8986 | 0.011193 | 0.040954 | -3.39383 |
| TGFB2 | NA | -0.83917 | 6.21494 | -3.8972 | 0.001475 | 0.008809 | -1.40662 |
| FCGR1A | NA | -0.83335 | 5.221652 | -2.95372 | 0.010016 | 0.037725 | -3.28662 |
| WDR1 | NA | -0.82592 | 10.68916 | -5.41984 | 7.57E-05 | 0.001044 | 1.570854 |
| GATA2 | NA | -0.82453 | 7.284386 | -5.0498 | 0.000152 | 0.001717 | 0.868129 |
| CASP3 | NA | 0.794223 | 7.841942 | 3.271859 | 0.005255 | 0.023022 | -2.65957 |
| HP | NA | -0.78615 | 5.371592 | -3.03865 | 0.008436 | 0.033176 | -3.1205 |
| KRAS | NA | 0.781433 | 8.55993 | 4.649912 | 0.000329 | 0.002985 | 0.091213 |
| IL15 | NA | -0.78012 | 5.676656 | -3.02191 | 0.008727 | 0.034021 | -3.15334 |
| CCR7 | NA | 0.766675 | 10.62601 | 4.699049 | 0.000299 | 0.002791 | 0.187553 |
| TPI1 | NA | -0.75783 | 8.684928 | -7.09185 | 4.07E-06 | 0.000153 | 4.514895 |
| LTBR | NA | -0.75168 | 7.091528 | -3.78847 | 0.001838 | 0.010443 | -1.62498 |
| CHUK | NA | 0.747385 | 7.743892 | 4.385896 | 0.000554 | 0.00434 | -0.43003 |
| XIAP | NA | 0.742263 | 7.364187 | 3.918203 | 0.001414 | 0.00854 | -1.36445 |
| RELB | NA | 0.716497 | 8.30302 | 2.87535 | 0.01173 | 0.042472 | -3.43889 |
| ALOX5 | NA | 0.708848 | 10.03028 | 3.366691 | 0.004333 | 0.019822 | -2.47062 |
| COMT | NA | -0.69536 | 8.476 | -5.18715 | 0.000117 | 0.001427 | 1.130903 |
| TNFSF9 | NA | 0.692365 | 7.833685 | 2.847883 | 0.012396 | 0.044289 | -3.492 |
| GATA3 | NA | -0.68424 | 7.062541 | -3.4114 | 0.003956 | 0.018539 | -2.38133 |
| MYO5A | NA | 0.681197 | 8.625516 | 2.809432 | 0.013391 | 0.047034 | -3.56611 |
| VAV1 | NA | -0.67739 | 8.535164 | -3.91479 | 0.001424 | 0.008578 | -1.37131 |
| IL27RA | NA | -0.67457 | 8.143211 | -5.315 | 9.21E-05 | 0.001201 | 1.373471 |
| ELF4 | NA | -0.65875 | 7.996843 | -4.73028 | 0.000282 | 0.002661 | 0.248669 |
| NFE2L2 | NA | 0.650126 | 8.530494 | 3.557677 | 0.002938 | 0.014846 | -2.0884 |
| HFE | NA | -0.64649 | 5.873079 | -5.64672 | 4.98E-05 | 0.00079 | 1.993124 |
| STAT2 | NA | -0.63759 | 9.41475 | -3.53951 | 0.003048 | 0.015257 | -2.12483 |
| IL10RB | NA | -0.63743 | 9.049835 | -5.58148 | 5.61E-05 | 0.000853 | 1.872395 |
| BIRC2 | NA | 0.63084 | 8.861359 | 4.069731 | 0.001042 | 0.006815 | -1.06062 |
| CREBBP | NA | 0.630745 | 9.687881 | 5.900812 | 3.14E-05 | 0.000573 | 2.457851 |
| LYN | NA | 0.629063 | 10.92456 | 3.526258 | 0.003131 | 0.015548 | -2.15139 |
| HLA-DPA1 | NA | -0.62906 | 12.06943 | -3.63566 | 0.002507 | 0.013141 | -1.93192 |
| IL10RA | NA | 0.621421 | 10.38763 | 3.535988 | 0.00307 | 0.015336 | -2.13189 |
| PTPN2 | NA | 0.618951 | 8.269377 | 3.548386 | 0.002994 | 0.015065 | -2.10703 |
| MDM2 | NA | 0.617463 | 8.298324 | 4.930219 | 0.000191 | 0.001998 | 0.637582 |
| CARD11 | NA | 0.609514 | 8.671536 | 5.018925 | 0.000161 | 0.001778 | 0.80876 |
| IL2RG | NA | -0.60798 | 10.0719 | -3.71566 | 0.002131 | 0.011679 | -1.77125 |
| DNASE1 | NA | -0.6052 | 6.879174 | -3.07984 | 0.007761 | 0.031071 | -3.03957 |
| CXCL1 | NA | -0.59804 | 7.006248 | -3.71102 | 0.002151 | 0.011763 | -1.78058 |
| CCR3 | NA | -0.5951 | 5.066051 | -3.78524 | 0.001851 | 0.010494 | -1.63149 |
| DHCR24 | NA | -0.59421 | 6.704014 | -5.04897 | 0.000152 | 0.001719 | 0.866541 |

Table S3 The average rankings of 77 common differentially expressed immune-related genes via 10-fold cross-validation using a SVM-RFE algorithm

| FeatureName | FeatureID | AvgRank |
|-------------|-----------|---------|
| GATA3 | 34 | 3.2 |
| CD247 | 14 | 5.9 |
| CD28 | 15 | 7.5 |
| IL6R | 47 | 9.6 |
| CD4 | 21 | 9.7 |
| HLA-DPB1 | 40 | 10.6 |
| CD3E | 19 | 11.6 |
| ICOS | 41 | 12.7 |
| TLR10 | 70 | 14 |
| ITK | 53 | 14.1 |
| LYN | 58 | 14.7 |
| GZMB | 39 | 15.1 |
| CD96 | 25 | 15.2 |
| NT5E | 60 | 15.6 |
| IRF4 | 50 | 15.9 |
| GIMAP4 | 35 | 17.2 |
| IL7R | 49 | 19.4 |
| PRKCQ | 61 | 19.6 |
| CD3G | 20 | 20.3 |
| CCND1 | 8 | 20.4 |
| BCL11B | 4 | 21.6 |
| CD3D | 18 | 23.5 |
| LCP2 | 56 | 23.8 |
| CD40LG | 22 | 24.2 |
| BTLA | 6 | 24.3 |
| TLR5 | 71 | 25.7 |
| FLT3 | 32 | 26 |
| VDR | 77 | 26.1 |
| IL4R | 46 | 27.8 |
| GIMAP6 | 37 | 28.5 |
| GAPDH | 33 | 29 |
| GIMAP5 | 36 | 29.8 |
| CXCR3 | 29 | 33.3 |
| CD8A | 24 | 34.2 |
| SLAMF1 | 68 | 34.6 |
| TNFRSF13C | 72 | 35.2 |
| ITGB1 | 51 | 35.6 |
| ADA | 1 | 38.6 |
| CD70 | 23 | 38.6 |
| SELP | 66 | 42.1 |
| TNFSF10 | 74 | 42.1 |
| LILRB2 | 57 | 43.5 |
| CD244 | 13 | 45.1 |
| IL2RB | 44 | 46.4 |
| SELL | 65 | 47 |
| DKC1 | 30 | 48.1 |
| ITGB2 | 52 | 48.8 |
| TNFSF4 | 76 | 51.2 |
| COMT | 26 | 51.3 |
| TFRC | 69 | 52.6 |
| CD33 | 16 | 52.7 |
| LAT | 55 | 53.1 |
| SH2D1A | 67 | 53.8 |
| IL6ST | 48 | 54.3 |
| CD14 | 10 | 54.9 |
| CD163 | 11 | 55.1 |

Table S3 (continued)

Table S3 (continued)

| FeatureName | FeatureID | AvgRank |
|-------------|-----------|---------|
| SAMHD1 | 64 | 55.5 |
| RAB27A | 62 | 56.2 |
| CXCL2 | 28 | 56.4 |
| GP1BA | 38 | 57.2 |
| BRCA2 | 5 | 58.6 |
| CD2 | 12 | 60.4 |
| CD36 | 17 | 60.4 |
| DPP4 | 31 | 61 |
| KLRD1 | 54 | 61.3 |
| IL1B | 43 | 63.9 |
| ANXA1 | 3 | 64.6 |
| CX3CR1 | 27 | 64.6 |
| IL15 | 42 | 64.7 |
| AHR | 2 | 65.2 |
| CCR2 | 9 | 66.4 |
| TNFSF13B | 75 | 67.7 |
| NCF2 | 59 | 68 |
| IL32 | 45 | 68.1 |
| RASGRP1 | 63 | 68.7 |
| TNFRSF1A | 73 | 69.3 |
| CARD11 | 7 | 70 |

Table S4 The 26 immune-related hub genes selected using a random forest algorithm

| | normal | tumor | MeanDecreaseAccuracy | MeanDecreaseGini |
|--------|----------|----------|----------------------|------------------|
| CD96 | 0.080333 | 0.037016 | 0.048578089 | 0.941935484 |
| ITK | 0.06 | 0.009079 | 0.015666667 | 0.727741935 |
| CD4 | 0.053333 | 0.014667 | 0.022820513 | 0.686451613 |
| LCP2 | 0.052 | 0.017 | 0.022545455 | 0.660645161 |
| GIMAP6 | 0.026667 | 0.008444 | 0.012820513 | 0.658064516 |
| ICOS | 0.046667 | 0.006167 | 0.01034965 | 0.632258065 |
| IL6R | 0.045 | 0.007175 | 0.011414141 | 0.632258065 |
| IRF4 | 0.02 | 0.001818 | 0.003333333 | 0.624516129 |
| GIMAP5 | 0.01 | 0.002222 | 0.003636364 | 0.500645161 |
| PRKCQ | 0.02 | 0.0025 | 0.004444444 | 0.454193548 |
| CD40LG | 0.02 | 0.006667 | 0.01 | 0.40516129 |
| CD3D | 0.016667 | 0.007778 | 0.010598291 | 0.361290323 |
| GATA3 | 0.03 | 0.008889 | 0.013426573 | 0.332903226 |
| IL2RB | 0.032 | 0.013571 | 0.018 | 0.32516129 |
| SH2D1A | 0.01 | 0.002 | 0.003333333 | 0.283870968 |
| CD28 | 0.013333 | 0.003077 | 0.005 | 0.270967742 |
| CD3E | 0.02 | 0.002 | 0.003636364 | 0.270967742 |
| CD3G | 0.02 | 0.002 | 0.003636364 | 0.255483871 |
| GIMAP4 | 0 | 0 | 0 | 0.255483871 |
| LAT | 0.01 | 0.001667 | 0.002857143 | 0.255483871 |
| BRCA2 | 0 | 0 | 0 | 0.237419355 |
| FLT3 | 0.02 | 0.0025 | 0.004444444 | 0.216774194 |
| LILRB2 | -0.005 | -0.002 | -0.002857143 | 0.216774194 |
| TLR5 | 0.006667 | 0.002857 | 0.004 | 0.193548387 |
| CD247 | 0.013333 | 0.004444 | 0.006666667 | 0.167741935 |
| GZMB | 0.01 | 0.004 | 0.005714286 | 0.139354839 |

Table S5 The 63 familiar immune checkpoint molecules and the 41 immune checkpoint molecules in GSE93291

| 63 familiar immune checkpoint molecules | 41 immune checkpoint molecules in GSE93291 |
|---|--|
| CD80 | BTLA |
| CD86 | BTN1A1 |
| CD273 | BTN2A1 |
| CD274 | BTN2A2 |
| CD275 | BTN3A1 |
| CD276 | BTN3A2 |
| VTCN1 | BTN3A3 |
| VSIR | BTNL2 |
| NCR3LG1 | BTNL3 |
| HHLA2 | BTNL8 |
| CD28 | BTNL9 |
| CTLA-4 | CD200 |
| CD279 | CD200R1 |
| ICOS | CD27 |
| TMIGD2 | CD274 |
| BTLA | CD276 |
| HVEM | CD28 |
| TNFSF14 | CD40 |
| BTN1A1 | CD80 |
| BTN2A1 | CD86 |
| BTN2A2 | CEACAM1 |
| BTN2A3 | HAVCR1 |
| BTN3A1 | HHLA2 |
| BTN3A2 | ICOS |
| BTN3A3 | IDO1 |
| BTNL2 | IL2RB |
| BTNL3 | KIR3DL1 |
| BTNL8 | LAG3 |
| BTNL9 | LAIR1 |
| BTNL10 | NCR3LG1 |
| SKINTL | PVR |
| TNFRSF9 | SIGLEC10 |
| TNFSF9 | SIGLEC15 |
| CD27 | SIGLEC9 |

Table S5 (continued)

Table S5 (continued)

| 63 familiar immune checkpoint molecules | 41 immune checkpoint molecules in GSE93291 |
|---|--|
| CD70 | TIGIT |
| CD40 | TMIGD2 |
| TNFSF5 | TNFRSF18 |
| TNFRSF18 | TNFRSF9 |
| TNFSF18 | TNFSF14 |
| TNFRSF4 | TNFSF18 |
| TNFSF4 | VTCN1 |
| TNFRSF25 | |
| IDO1 | |
| LAG3 | |
| GAL3 | |
| TIGIT | |
| CD266 | |
| PVR | |
| PVRL2 | |
| TIM3 | |
| CEACAM1 | |
| HAVCR1 | |
| SIGLEC15 | |
| SIGLEC9 | |
| SIGLEC10 | |
| CD200R1 | |
| CD200 | |
| LAIR1 | |
| ADORA2A | |
| KIR3DL1 | |
| SLAM | |
| NAIL | |
| IL2RB | |

Table S6 The 65 differentially expressed genes of the MCL molecular clusters in GSE93291

| | ID | logFC | AveExpr | t | P.Value | adj.P.Val | B |
|--------------|----|----------|----------|----------|----------|-----------|----------|
| IGKV1OR2-108 | NA | 1.725786 | 9.891089 | 4.054258 | 8.81E-05 | 0.003222 | 1.217952 |
| GATA3 | NA | 1.661045 | 7.52284 | 10.99958 | 4.58E-20 | 9.96E-16 | 34.22037 |
| CD3E | NA | 1.533081 | 9.340488 | 10.7921 | 1.47E-19 | 1.60E-15 | 33.13177 |
| ICOS | NA | 1.487337 | 8.011179 | 7.710273 | 3.49E-12 | 6.34E-09 | 17.17792 |
| UBASH3A | NA | 1.441929 | 7.469967 | 6.787777 | 4.17E-10 | 3.63E-07 | 12.67496 |
| MIRLET7DHG | NA | -1.39599 | 5.436358 | -4.21669 | 4.73E-05 | 0.002156 | 1.789733 |
| ITK | NA | 1.335994 | 10.16584 | 9.610046 | 1.10E-16 | 5.98E-13 | 26.93171 |
| CHRM3-AS2 | NA | 1.319179 | 6.640439 | 5.327256 | 4.52E-07 | 0.000107 | 6.112613 |
| DAPK1-IT1 | NA | 1.317312 | 6.349707 | 5.035428 | 1.64E-06 | 0.000252 | 4.911914 |
| LOC541472 | NA | 1.313824 | 6.945098 | 5.336134 | 4.34E-07 | 0.000106 | 6.149803 |
| LOC101928173 | NA | 1.302212 | 6.525837 | 5.222522 | 7.21E-07 | 0.000144 | 5.676812 |
| LGALS2 | NA | 1.257316 | 8.376114 | 4.676772 | 7.48E-06 | 0.00063 | 3.497142 |
| HIST1H3B | NA | -1.25651 | 5.971813 | -3.28853 | 0.00131 | 0.016778 | -1.23821 |
| LOC100130744 | NA | 1.251725 | 6.474463 | 3.550655 | 0.000544 | 0.009955 | -0.44373 |
| CLEC4G | NA | 1.247639 | 6.332951 | 3.91782 | 0.000147 | 0.004456 | 0.750852 |
| RGL4 | NA | 1.241336 | 6.171024 | 4.886389 | 3.10E-06 | 0.000368 | 4.315552 |
| FCAMR | NA | 1.233756 | 8.882764 | 3.692392 | 0.000331 | 0.007358 | 0.006382 |
| CD7 | NA | 1.221377 | 7.669667 | 7.528463 | 9.12E-12 | 1.32E-08 | 16.274 |
| DBH-AS1 | NA | 1.214772 | 7.165114 | 5.482219 | 2.25E-07 | 6.69E-05 | 6.767061 |
| C1QA | NA | 1.202467 | 9.971415 | 5.222496 | 7.21E-07 | 0.000144 | 5.676706 |
| IGFBP4 | NA | 1.188228 | 9.155561 | 4.942455 | 2.44E-06 | 0.000321 | 4.538513 |
| IGKV1OR2-118 | NA | 1.178275 | 10.34301 | 4.157538 | 5.95E-05 | 0.002518 | 1.579568 |
| CCL21 | NA | 1.177312 | 11.88468 | 4.33749 | 2.95E-05 | 0.001618 | 2.225716 |
| LAMP3 | NA | 1.166764 | 9.032171 | 7.186134 | 5.44E-11 | 7.39E-08 | 14.59271 |
| HIST1H2AE | NA | -1.1628 | 6.172081 | -3.59067 | 0.000473 | 0.009158 | -0.3181 |
| ITGB2-AS1 | NA | 1.158801 | 9.352488 | 8.450758 | 6.55E-14 | 1.53E-10 | 20.92418 |
| GIMAP4 | NA | 1.153945 | 9.577252 | 7.661143 | 4.53E-12 | 7.04E-09 | 16.93296 |
| IL32 | NA | 1.146985 | 10.6535 | 6.741181 | 5.27E-10 | 4.25E-07 | 12.45365 |
| XXYLT1 | NA | -1.14056 | 6.37961 | -3.71177 | 0.000309 | 0.00709 | 0.069002 |
| CD5L | NA | 1.139343 | 5.876073 | 3.306695 | 0.001235 | 0.016182 | -1.18479 |
| LAT | NA | 1.138842 | 9.24213 | 10.0969 | 7.25E-18 | 5.26E-14 | 29.48214 |
| CLEC4M | NA | 1.136007 | 6.899561 | 3.870316 | 0.000175 | 0.004892 | 0.591112 |
| LRRC52 | NA | 1.134241 | 6.635244 | 4.28439 | 3.64E-05 | 0.001818 | 2.03296 |
| KCNMA1-AS1 | NA | 1.122273 | 6.284585 | 4.650462 | 8.34E-06 | 0.000663 | 3.39615 |
| TBC1D4 | NA | 1.120043 | 9.594577 | 8.907928 | 5.37E-15 | 1.67E-11 | 23.2777 |
| BLID | NA | 1.11623 | 5.561732 | 4.994848 | 1.95E-06 | 0.000277 | 4.748377 |
| IGK | NA | 1.112652 | 10.7369 | 4.396901 | 2.33E-05 | 0.001364 | 2.443421 |
| ERV9-1 | NA | -1.09491 | 5.297691 | -4.58342 | 1.10E-05 | 0.000802 | 3.140603 |
| RGS13 | NA | 1.092277 | 5.061149 | 3.161243 | 0.001974 | 0.021485 | -1.60572 |
| SCGB3A1 | NA | 1.083837 | 4.880187 | 3.917169 | 0.000147 | 0.00446 | 0.748653 |
| FAM111B | NA | -1.07981 | 6.465732 | -4.04109 | 9.26E-05 | 0.003315 | 1.172354 |
| RPS11 | NA | -1.073 | 8.64878 | -3.33126 | 0.001139 | 0.01544 | -1.11214 |
| FAM30A | NA | 1.066288 | 5.935028 | 4.800437 | 4.46E-06 | 0.000469 | 3.977037 |
| KLK1 | NA | 1.063356 | 7.788423 | 5.011356 | 1.81E-06 | 0.000266 | 4.814797 |
| AICDA | NA | 1.061618 | 5.207496 | 2.855943 | 0.005031 | 0.038443 | -2.43656 |
| DEFB114 | NA | -1.0616 | 3.251285 | -3.25746 | 0.00145 | 0.017799 | -1.32905 |
| CTSW | NA | 1.056524 | 7.723959 | 4.140112 | 6.36E-05 | 0.002605 | 1.518076 |
| LOC100652768 | NA | 1.051942 | 7.529488 | 4.141099 | 6.34E-05 | 0.002602 | 1.521555 |
| PRKCQ | NA | 1.046411 | 8.241333 | 9.044692 | 2.53E-15 | 1.02E-11 | 23.98628 |
| P2RY13 | NA | 1.042396 | 8.417228 | 5.521527 | 1.88E-07 | 5.92E-05 | 6.934844 |
| BTNL8 | NA | 1.040863 | 5.397862 | 3.698448 | 0.000324 | 0.007282 | 0.02593 |
| LOC200772 | NA | 1.036349 | 6.757967 | 3.464044 | 0.000731 | 0.011894 | -0.71177 |
| LOC101930452 | NA | -1.0361 | 4.885293 | -3.48843 | 0.000673 | 0.011332 | -0.63686 |
| IFI44L | NA | 1.029892 | 9.596683 | 2.902035 | 0.004388 | 0.035093 | -2.3158 |
| C1QC | NA | 1.025014 | 10.27267 | 4.954184 | 2.32E-06 | 0.000312 | 4.585366 |
| TRAC | NA | 1.024629 | 11.68657 | 7.677973 | 4.15E-12 | 6.94E-09 | 17.01681 |
| PTK2B | NA | 1.022714 | 8.781337 | 4.145533 | 6.23E-05 | 0.002586 | 1.537187 |
| CD3D | NA | 1.021117 | 11.69704 | 6.008716 | 1.92E-08 | 9.31E-06 | 9.070514 |
| SOCS2-AS1 | NA | 1.019459 | 5.417911 | 4.207945 | 4.90E-05 | 0.002202 | 1.758527 |
| NOG | NA | 1.019158 | 4.891756 | 3.392039 | 0.000931 | 0.013734 | -0.93048 |
| CNDP1 | NA | 1.010564 | 4.857911 | 3.989375 | 0.000112 | 0.003735 | 0.9943 |
| LINC00943 | NA | 1.006716 | 5.813805 | 4.383566 | 2.46E-05 | 0.001411 | 2.394369 |
| LRRC25 | NA | 1.006531 | 8.02439 | 3.792852 | 0.000231 | 0.005825 | 0.333879 |
| BTBD11 | NA | 1.006402 | 6.026008 | 5.937572 | 2.70E-08 | 1.18E-05 | 8.752451 |
| TNIK | NA | 1.002548 | 6.650659 | 8.003599 | 7.32E-13 | 1.45E-09 | 18.65045 |

Table S7 The 20 prognostic differentially expressed genes of the MCL molecular clusters in GSE93291

| | coef | se | z | p | HR | HRse | HRz | HRp | HRCILL | HRCIUL |
|--------------|--------|-------|--------|-------|-------|-------|--------|-------|--------|--------|
| FCAMR | -0.774 | 0.231 | -3.354 | 0.001 | 0.461 | 0.106 | -5.064 | 0 | 0.315 | 0.674 |
| LGALS2 | -0.716 | 0.23 | -3.116 | 0.002 | 0.489 | 0.112 | -4.553 | 0 | 0.335 | 0.713 |
| ICOS | -0.703 | 0.233 | -3.013 | 0.003 | 0.495 | 0.116 | -4.371 | 0 | 0.337 | 0.727 |
| CD3D | -0.664 | 0.23 | -2.89 | 0.004 | 0.515 | 0.118 | -4.101 | 0 | 0.353 | 0.751 |
| GATA3 | -0.66 | 0.228 | -2.892 | 0.004 | 0.517 | 0.118 | -4.096 | 0 | 0.355 | 0.752 |
| PRKCQ | -0.649 | 0.231 | -2.808 | 0.005 | 0.522 | 0.121 | -3.954 | 0 | 0.357 | 0.764 |
| UBASH3A | -0.645 | 0.228 | -2.828 | 0.005 | 0.525 | 0.12 | -3.971 | 0 | 0.361 | 0.764 |
| BTBD11 | -0.61 | 0.231 | -2.636 | 0.008 | 0.543 | 0.126 | -3.632 | 0 | 0.371 | 0.795 |
| LAMP3 | -0.555 | 0.231 | -2.402 | 0.016 | 0.574 | 0.133 | -3.21 | 0.001 | 0.393 | 0.84 |
| HIST1H2AE | -0.572 | 0.239 | -2.388 | 0.017 | 0.565 | 0.135 | -3.222 | 0.001 | 0.381 | 0.837 |
| FAM30A | -0.544 | 0.234 | -2.321 | 0.02 | 0.58 | 0.136 | -3.085 | 0.002 | 0.395 | 0.853 |
| ITK | -0.533 | 0.23 | -2.318 | 0.02 | 0.587 | 0.135 | -3.063 | 0.002 | 0.402 | 0.856 |
| IGFBP4 | 0.521 | 0.229 | 2.275 | 0.023 | 1.684 | 0.386 | 1.773 | 0.076 | 1.155 | 2.454 |
| IGKV1OR2-108 | -0.525 | 0.23 | -2.279 | 0.023 | 0.592 | 0.136 | -2.997 | 0.003 | 0.405 | 0.864 |
| ERV9-1 | 0.524 | 0.239 | 2.19 | 0.029 | 1.689 | 0.404 | 1.704 | 0.088 | 1.139 | 2.504 |
| IGKV1OR2-118 | -0.48 | 0.229 | -2.097 | 0.036 | 0.619 | 0.142 | -2.691 | 0.007 | 0.425 | 0.902 |
| C1QA | 0.485 | 0.234 | 2.076 | 0.038 | 1.625 | 0.38 | 1.645 | 0.1 | 1.106 | 2.387 |
| RPS11 | -0.486 | 0.234 | -2.076 | 0.038 | 0.615 | 0.144 | -2.673 | 0.008 | 0.419 | 0.904 |
| P2RY13 | -0.471 | 0.229 | -2.051 | 0.04 | 0.625 | 0.143 | -2.619 | 0.009 | 0.428 | 0.911 |
| LRRC52 | -0.459 | 0.228 | -2.016 | 0.044 | 0.632 | 0.144 | -2.559 | 0.011 | 0.434 | 0.919 |

