| | RMSE | Observed Mean | Observed Stdev | RMSE:Stdev | Calculated R^2 |
|-----------|-------|----------------------|----------------|-------------|----------------|
| FAM163A | 0.415 | -0.065791256 | 0.530842838 | 0.781627276 | 0.389058802 |
| BPI | 0.982 | 0.160468252 | 1.244019953 | 0.789574342 | 0.376572359 |
| CRABP1 | 1.328 | 0.341930062 | 1.656896056 | 0.801367092 | 0.357810785 |
| DSG1 | 0.329 | -0.033281764 | 0.397113084 | 0.827979654 | 0.314449693 |
| SMTNL2 | 1.422 | 0.208983342 | 1.670141868 | 0.851217275 | 0.27542915 |
| LAMP5 | 0.773 | -0.042433851 | 0.90379023 | 0.855586193 | 0.267972267 |
| VGLL1 | 1.269 | 0.35409593 | 1.462112286 | 0.868213464 | 0.246205381 |
| MAT1A | 0.629 | 0.095549982 | 0.715781099 | 0.878083244 | 0.228969816 |
| C4BPA | 1.04 | 0.010156146 | 1.182690038 | 0.87914837 | 0.227098144 |
| STC2 | 0.676 | -0.160145875 | 0.765417692 | 0.8829284 | 0.22043744 |
| PNCK | 0.642 | -0.05351794 | 0.723507921 | 0.886717492 | 0.213732089 |
| HIST2H2AC | 0.96 | 0.248831486 | 1.081083801 | 0.887739982 | 0.211917724 |
| EPS8L3 | 0.84 | 0.062774912 | 0.93540751 | 0.897515285 | 0.194466313 |
| FGF8 | 0.651 | 0.000240119 | 0.721227636 | 0.902617342 | 0.185281934 |
| SOX1 | 0.912 | 0.134542625 | 1.00708016 | 0.905646734 | 0.179803994 |
| FABP7 | 0.82 | -0.008640754 | 0.900211915 | 0.910432545 | 0.171112581 |
| PPP1R1A | 0.659 | -0.078717132 | 0.72247389 | 0.91275182 | 0.166884116 |
| SFTPD | 0.643 | -0.119396089 | 0.703925456 | 0.913166451 | 0.166127032 |
| FOLH1 | 0.826 | 0.30355391 | 0.902754401 | 0.915055693 | 0.162673078 |
| SFTPB | 0.99 | 0.130714467 | 1.081418 | 0.915898877 | 0.161129248 |
| SCGB1A1 | 0.625 | -0.08092872 | 0.680977958 | 0.917644239 | 0.15792905 |
| FOXE1 | 1.023 | 0.13314727 | 1.112325599 | 0.920002551 | 0.153595306 |
| HAND1 | 1.176 | 0.18770385 | 1.277220486 | 0.920810842 | 0.152107393 |
| BHLHA15 | 0.734 | -0.11066561 | 0.796501899 | 0.921266832 | 0.151267425 |
| ANXA10 | 0.551 | -0.074748581 | 0.598129868 | 0.921477269 | 0.150879643 |
| SFTPA1 | 1.016 | 0.141901117 | 1.102298025 | 0.921514683 | 0.150810689 |
| ALPPL2 | 0.745 | 0.122744391 | 0.807366543 | 0.922139234 | 0.149659232 |
| RHCG | 0.384 | -0.000940958 | 0.413859522 | 0.927306995 | 0.140101737 |
| IL36G | 0.767 | 0.169821407 | 0.826585304 | 0.928276343 | 0.138303032 |
| OR51E1 | 0.792 | 0.022040592 | 0.850984081 | 0.930590517 | 0.13400129 |
| KRT13 | 1.04 | 0.143186397 | 1.117108942 | 0.930804201 | 0.133603539 |
| UTS2R | 0.698 | -0.129743752 | 0.748435802 | 0.933015712 | 0.129481681 |
| TRPV6 | 0.972 | 0.195611228 | 1.040025933 | 0.934537167 | 0.126640284 |
| DMRT2 | 0.56 | -0.071109095 | 0.598740667 | 0.93555337 | 0.124739891 |
| HR | 1.417 | 0.412419841 | 1.507663959 | 0.940077357 | 0.116254563 |
| ADRA2C | 1.346 | 0.073125231 | 1.430887906 | 0.940526369 | 0.11541015 |
| KLK1 | 0.837 | 0.077432251 | 0.889689106 | 0.940872638 | 0.114758679 |
| UPK2 | 0.519 | 0.007134709 | 0.550880094 | 0.941737995 | 0.113129548 |
| POSTN | 0.844 | 0.024891533 | 0.892981342 | 0.945146168 | 0.106698721 |
| COMP | 0.608 | -0.097518541 | 0.642550407 | 0.946274256 | 0.104565033 |
| LYPD6B | 0.701 | -0.055520966 | 0.740614354 | 0.946280136 | 0.104553905 |
| SPRR3 | 0.952 | 0.151055603 | 1.006187237 | 0.946509034 | 0.104120648 |

| TP63 | 1.027 | 0.090248438 | 1.082344418 | 0.949268995 | 0.098888375 |
|----------|-------|--------------|-------------|-------------|-------------|
| PRSS57 | 1.609 | 0.191317882 | 1.693077589 | 0.950138765 | 0.097236328 |
| P2RX3 | 0.848 | -0.302055634 | 0.892258067 | 0.950455835 | 0.096633707 |
| GLYAT | 0.89 | -0.101256461 | 0.934046576 | 0.952389574 | 0.0929541 |
| LEFTY1 | 1.107 | 0.122482022 | 1.16175156 | 0.95271023 | 0.092343217 |
| GDNF | 0.688 | 0.018270477 | 0.722025396 | 0.952861591 | 0.092054789 |
| HOGA1 | 0.948 | -0.128743033 | 0.994682074 | 0.953040408 | 0.09171398 |
| SLC27A6 | 0.711 | 0.073802278 | 0.744203719 | 0.955247718 | 0.087501798 |
| LRRC14B | 1.143 | 0.061879102 | 1.195224152 | 0.956002235 | 0.086059726 |
| CILP | 0.542 | -0.149522238 | 0.56655932 | 0.956119549 | 0.085835407 |
| PRG4 | 1.715 | 0.20722776 | 1.791487569 | 0.957251915 | 0.083668771 |
| MMP1 | 0.695 | 0.023089209 | 0.725483337 | 0.958380355 | 0.081507095 |
| TFR2 | 1.069 | 0.12403613 | 1.115282519 | 0.958628812 | 0.0810308 |
| C18orf42 | 0.951 | 0.010088922 | 0.990616885 | 0.9597639 | 0.078853257 |
| TRIM31 | 1.359 | 0.17751671 | 1.414467878 | 0.960504925 | 0.077430288 |
| DSG3 | 0.726 | 0.116971404 | 0.755730573 | 0.960868937 | 0.076730886 |
| PKP1 | 0.86 | 0.177236057 | 0.895045286 | 0.960955269 | 0.076564971 |
| LGALS4 | 0.987 | -0.136739731 | 1.025691908 | 0.96243282 | 0.073723067 |
| CRYAB | 1.178 | 0.253457688 | 1.22360258 | 0.962604824 | 0.073391952 |
| LMX1B | 0.888 | -0.223223918 | 0.921021816 | 0.96372584 | 0.071232506 |
| PEG10 | 1.132 | 0.089674556 | 1.173972027 | 0.96460186 | 0.069543252 |
| CTSE | 0.756 | -0.086323271 | 0.783119854 | 0.965088953 | 0.068603313 |
| MS4A3 | 1.1 | -0.091210757 | 1.139069584 | 0.965506588 | 0.067797028 |
| CCR9 | 1.118 | -0.089012858 | 1.158101832 | 0.965736229 | 0.067353536 |
| ASIC4 | 1.375 | 0.160085908 | 1.41949571 | 0.96886765 | 0.061295477 |
| SFRP2 | 0.833 | -0.161237031 | 0.860119172 | 0.96890333 | 0.061226338 |
| PLA2G2A | 0.641 | -0.10886316 | 0.660018012 | 0.971563839 | 0.056063706 |
| GPRC5D | 1.826 | 0.30490297 | 1.878254464 | 0.972444641 | 0.05435142 |
| FCRL3 | 1.268 | 0.084069484 | 1.301989461 | 0.97356465 | 0.052171872 |
| FAIM3 | 1.283 | -0.027716657 | 1.317303992 | 0.973966087 | 0.051390061 |
| KLK8 | 1.066 | 0.230333984 | 1.094585189 | 0.974249278 | 0.050838345 |
| KCNK15 | 0.885 | -0.162596165 | 0.907191951 | 0.976061871 | 0.047303224 |
| CES1 | 0.843 | -0.100241633 | 0.863264877 | 0.976653302 | 0.046148327 |
| PEBP4 | 0.606 | -0.16300424 | 0.619708101 | 0.977842115 | 0.043824797 |
| CCL13 | 1.151 | 0.07660574 | 1.176228168 | 0.978861871 | 0.041829438 |
| SLAMF7 | 0.875 | -0.037618998 | 0.893939907 | 0.979018698 | 0.04152239 |
| CD70 | 1.368 | -0.015818796 | 1.39760783 | 0.979159869 | 0.041245951 |
| TSPAN32 | 1.4 | 0.022367677 | 1.429842909 | 0.979404354 | 0.040767112 |
| VPREB1 | 1.324 | 0.053109054 | 1.350660979 | 0.980110591 | 0.039383229 |
| TMEM179 | 0.722 | -0.00311051 | 0.736072036 | 0.980481377 | 0.038656269 |
| C8orf46 | 1.174 | 0.139326157 | 1.196763289 | 0.980982221 | 0.037673881 |
| MLPH | 1.023 | -0.170265983 | 1.041429323 | 0.982319265 | 0.035048862 |
| DAPL1 | 1.098 | 0.088442432 | 1.115261571 | 0.984178916 | 0.031391862 |

| CALML5 | 0.883 | 0.037784003 | 0.897381067 | 0.984266483 | 0.031219491 |
|------------|-------|--------------|-------------|-------------|--------------|
| SLC22A2 | 0.762 | 0.007303299 | 0.773670767 | 0.984659583 | 0.030445506 |
| PLA2G2D | 0.803 | -0.027935389 | 0.814854501 | 0.984843283 | 0.030083708 |
| C11orf21 | 1.563 | 0.102137272 | 1.586020027 | 0.985577977 | 0.02863605 |
| NKX3-1 | 1.705 | 0.146585162 | 1.729522277 | 0.985839779 | 0.02811993 |
| TCERG1L | 1.092 | 0.09671696 | 1.108023173 | 0.985884034 | 0.028032672 |
| VSTM1 | 0.853 | -0.098042727 | 0.86451388 | 0.986963313 | 0.025903419 |
| TBX3 | 1.454 | 0.38690137 | 1.471619728 | 0.987786923 | 0.024276995 |
| MMP17 | 1.1 | -0.030553539 | 1.111151143 | 0.989650435 | 0.020592017 |
| BRINP2 | 1.069 | 0.011264399 | 1.077864163 | 0.991676977 | 0.016576774 |
| GPA33 | 1.191 | 0.095348943 | 1.199715143 | 0.992797749 | 0.014352629 |
| AMHR2 | 1.858 | 0.204520278 | 1.87061222 | 0.993229487 | 0.013495186 |
| ВТК | 1.108 | -0.125143233 | 1.115369526 | 0.993780534 | 0.012400251 |
| MUC3A | 1.152 | 0.335308574 | 1.157389586 | 0.995243768 | 0.009489842 |
| NDNF | 0.958 | -0.012819436 | 0.962673472 | 0.995485974 | 0.009007676 |
| MEF2B | 0.967 | 0.128739357 | 0.971066948 | 0.995554979 | 0.008870284 |
| C1orf228 | 1.39 | 0.068336413 | 1.394111068 | 0.997108014 | 0.005775608 |
| LRMP | 1.394 | 0.073894203 | 1.398027054 | 0.99719494 | 0.005602252 |
| DPPA5 | 1.205 | 0.144573693 | 1.208601571 | 0.997227486 | 0.00553734 |
| GBP6 | 1.417 | 0.307771084 | 1.421086686 | 0.997275209 | 0.005442158 |
| HLA-DOB | 1.34 | 0.100183842 | 1.342782559 | 0.997657887 | 0.004678741 |
| AIM2 | 1.641 | 0.32357895 | 1.644530856 | 0.99770964 | 0.004575475 |
| GZMK | 0.952 | -0.090083982 | 0.952587116 | 0.998921734 | 0.002155369 |
| MRGPRF | 1.001 | 0.108082209 | 1.001374966 | 0.999610879 | 0.00077809 |
| HIST1H1B | 0.753 | -0.130615367 | 0.753082664 | 1.000377287 | -0.000754717 |
| PTCRA | 1.438 | 0.137178856 | 1.43691039 | 1.000448571 | -0.000897343 |
| TRABD2B | 1.113 | -0.103409923 | 1.112319833 | 1.000506071 | -0.001012397 |
| P2RX5 | 1.318 | 0.044611399 | 1.317142361 | 1.000560153 | -0.00112062 |
| SFTPA2 | 0.773 | -0.021745683 | 0.771987948 | 1.000803357 | -0.001607359 |
| TLR10 | 1.256 | -0.063742776 | 1.254964433 | 1.000903944 | -0.001808705 |
| CCL20 | 1.858 | 0.253875729 | 1.856619742 | 1.000995069 | -0.001991127 |
| ВМР6 | 0.318 | -0.0721533 | 0.317235387 | 1.001024984 | -0.002051019 |
| CLCNKB | 1.116 | 0.066128262 | 1.114545988 | 1.001177895 | -0.002357177 |
| ST6GALNAC1 | 1.347 | 0.152367898 | 1.345478912 | 1.001392949 | -0.002787839 |
| DPPA4 | 1.652 | 0.2220167 | 1.648800399 | 1.001656411 | -0.003315566 |
| SLC3A1 | 1.752 | 0.276655294 | 1.749237899 | 1.001864765 | -0.003733007 |
| CTNND2 | 1.288 | 0.198427793 | 1.285454966 | 1.002293214 | -0.004591686 |
| SH2D1A | 1.149 | -0.044855428 | 1.145899711 | 1.002356264 | -0.00471808 |
| FAT2 | 1.693 | 0.413129732 | 1.689028678 | 1.002587644 | -0.005181983 |
| DUSP5 | 0.842 | -0.036370025 | 0.839623868 | 1.00283034 | -0.005668691 |
| CHAD | 1.429 | 0.224698344 | 1.424708899 | 1.002874834 | -0.005757932 |
| RNASE3 | 0.718 | 0.209197066 | 0.715702851 | 1.003453826 | -0.006919581 |
| EYA1 | 1.33 | 0.055494953 | 1.325654054 | 1.003492472 | -0.00699714 |

| | | | . ====== | | |
|----------|-------|--------------|-------------|-------------|--------------|
| FCRL2 | 1.728 | 0.220793759 | 1.722204862 | 1.003508107 | -0.007028521 |
| BNC1 | 1.052 | 0.262231372 | 1.048522435 | 1.003541924 | -0.007096393 |
| PTGER3 | 1.517 | -0.004693936 | 1.511394856 | 1.003861892 | -0.007738697 |
| AICDA | 1.487 | 0.19182393 | 1.481605574 | 1.003921343 | -0.007858063 |
| CLEC17A | 1.276 | 0.061918144 | 1.270346086 | 1.004315534 | -0.008649693 |
| SOX17 | 1.405 | 0.093397847 | 1.398765931 | 1.00443213 | -0.008883903 |
| RAB37 | 1.098 | -0.071373597 | 1.092042921 | 1.005317682 | -0.010663641 |
| CAPS | 1.084 | 0.352697904 | 1.078261466 | 1.005696425 | -0.011425299 |
| HOXD11 | 1.283 | 0.042415594 | 1.275690852 | 1.005755501 | -0.011544128 |
| KRT6B | 2.033 | 0.398511041 | 2.019445962 | 1.006796823 | -0.013639843 |
| SERPINC1 | 1.421 | 0.250763464 | 1.410982765 | 1.006939541 | -0.013927239 |
| DEFB1 | 1.882 | 0.433288058 | 1.869079565 | 1.007175493 | -0.014402473 |
| IL21R | 0.987 | -0.045914093 | 0.980023582 | 1.007419789 | -0.014894631 |
| HIST1H3G | 1.063 | 0.116374759 | 1.054674421 | 1.008008575 | -0.016081287 |
| MS4A1 | 1.426 | 0.107369675 | 1.413966868 | 1.008390563 | -0.016851527 |
| TXNDC5 | 1.079 | 0.117481249 | 1.069576521 | 1.008398733 | -0.016868004 |
| CD22 | 1.53 | 0.084754658 | 1.516621621 | 1.008534926 | -0.017142696 |
| CYP4B1 | 2.001 | 0.217153042 | 1.983486414 | 1.008739398 | -0.017555172 |
| ZBED2 | 0.919 | -0.09577209 | 0.9101913 | 1.009928392 | -0.019955357 |
| PAX5 | 1.288 | 0.124734768 | 1.275523425 | 1.009985982 | -0.020071684 |
| KRT6A | 1.924 | 0.421414716 | 1.903447548 | 1.010643961 | -0.021401216 |
| BLK | 1.408 | 0.14159879 | 1.392841865 | 1.010728201 | -0.021571496 |
| SDR16C5 | 1.281 | 0.383974848 | 1.266869927 | 1.011184778 | -0.022494656 |
| ASCL2 | 1.074 | 0.024743274 | 1.062509392 | 1.01126446 | -0.022655809 |
| FAM43B | 0.884 | -0.048814285 | 0.874457444 | 1.011328098 | -0.022784523 |
| CD8B | 1.52 | 0.108715314 | 1.501881346 | 1.011837322 | -0.023814767 |
| HIST1H3F | 0.763 | 0.102994097 | 0.754045605 | 1.012061431 | -0.024268341 |
| POU2F2 | 1.594 | 0.120065341 | 1.574237204 | 1.012817261 | -0.025798805 |
| SLC7A8 | 1.157 | 0.182288295 | 1.142070587 | 1.013488413 | -0.027158763 |
| CD19 | 1.625 | 0.226648671 | 1.603317914 | 1.013497177 | -0.027176528 |
| PAX2 | 1.518 | 0.208050149 | 1.497608759 | 1.013601019 | -0.027387026 |
| FOXJ1 | 0.818 | -0.195581051 | 0.807410243 | 1.013684928 | -0.027557133 |
| KLK7 | 1.625 | 0.445035991 | 1.603020453 | 1.01388372 | -0.027960197 |
| CFTR | 1.648 | 0.285928402 | 1.625172396 | 1.01410649 | -0.028411972 |
| KHDC3L | 1.214 | 0.292222634 | 1.196989175 | 1.014417876 | -0.029043627 |
| NTS | 1.784 | 0.274436331 | 1.757934673 | 1.014654405 | -0.029523562 |
| FAM129C | 2.028 | 0.291251485 | 1.997469272 | 1.015414301 | -0.031066203 |
| CD3D | 1.493 | 0.093549487 | 1.46972364 | 1.015508771 | -0.031258064 |
| GFRA1 | 0.967 | -0.141256843 | 0.9516933 | 1.015760383 | -0.031769156 |
| CORO2B | 0.914 | -0.054536026 | 0.899423808 | 1.015847141 | -0.031945413 |
| MLC1 | 2.2 | 0.414998949 | 2.165270384 | 1.015860703 | -0.031972967 |
| PCDH18 | 0.902 | 0.021782238 | 0.888050682 | 1.015964963 | -0.032184805 |
| TCL1A | 1.685 | 0.235971793 | 1.656908882 | 1.017146588 | -0.034587182 |

| ITIH1 | 0.973 | -0.124308838 | 0.956596789 | 1.017554181 | -0.035416512 |
|-----------|-------|--------------|-------------|-------------|--------------|
| TNFRSF13C | 1.507 | 0.190456049 | 1.480872627 | 1.017559039 | -0.035426397 |
| LYG1 | 1.146 | 0.22337652 | 1.126343901 | 1.017802296 | -0.035921513 |
| VSTM2A | 0.833 | 0.041869651 | 0.818850025 | 1.01784976 | -0.036018134 |
| GALNT9 | 0.921 | 0.083713983 | 0.90424495 | 1.018007492 | -0.036339254 |
| IL18RAP | 1.65 | 0.150403845 | 1.620527812 | 1.018034847 | -0.03639495 |
| GFRA3 | 2.203 | 0.428327454 | 2.163559472 | 1.018424884 | -0.037189244 |
| GNG3 | 1.5 | 0.133263513 | 1.472607503 | 1.018491054 | -0.037324028 |
| IRF4 | 1.087 | 0.027894561 | 1.067297191 | 1.018504557 | -0.037351533 |
| HAS1 | 2.014 | 0.331165436 | 1.977114732 | 1.018747139 | -0.037845733 |
| CLECL1 | 1.5 | -0.014553582 | 1.471562384 | 1.01923515 | -0.038840291 |
| NEFM | 0.901 | -0.079680539 | 0.883987822 | 1.019419637 | -0.039216395 |
| CDHR5 | 1.052 | 0.153216708 | 1.031787397 | 1.019611843 | -0.039608311 |
| HOXB13 | 1.623 | 0.39908597 | 1.591085398 | 1.02008576 | -0.040574958 |
| RTN1 | 0.958 | -0.143364547 | 0.938874659 | 1.020394303 | -0.041204533 |
| FCRLA | 1.764 | 0.261523776 | 1.728384892 | 1.02045629 | -0.041331039 |
| PLAC8 | 1.921 | 0.248742421 | 1.88238047 | 1.020739443 | -0.04190901 |
| FCRL5 | 1.004 | 0.121281005 | 0.983341707 | 1.020806939 | -0.042046806 |
| FOXN1 | 1.613 | 0.25520814 | 1.580340663 | 1.020831239 | -0.042096418 |
| IL36RN | 1.809 | 0.310466547 | 1.771942344 | 1.020967421 | -0.042374474 |
| POU2AF1 | 1.139 | 0.136623876 | 1.115575857 | 1.021279889 | -0.043012611 |
| NDUFA4L2 | 2.087 | 0.468760105 | 2.042580755 | 1.021519763 | -0.043502627 |
| TNFRSF17 | 1.044 | 0.127132695 | 1.021076686 | 1.022070559 | -0.044628227 |
| FOXA1 | 1.071 | -0.288990877 | 1.047661458 | 1.022279182 | -0.045054725 |
| PHGR1 | 1.942 | 0.302430473 | 1.899311123 | 1.022303107 | -0.045103642 |
| VRTN | 2.045 | 0.367516818 | 1.999229245 | 1.022907527 | -0.046339809 |
| TNF | 0.722 | -0.360883625 | 0.70530034 | 1.023302984 | -0.047148998 |
| TNFRSF13B | 1.875 | 0.278893262 | 1.831205474 | 1.023809213 | -0.048185305 |
| HEPACAM | 0.763 | -0.097653793 | 0.744850376 | 1.023852962 | -0.048274887 |
| EEF1A2 | 1.579 | 0.325975049 | 1.542333418 | 1.02406858 | -0.048716457 |
| BBOX1 | 1.383 | 0.211235609 | 1.349414403 | 1.024590867 | -0.049786445 |
| CD79B | 1.725 | 0.24756799 | 1.683652926 | 1.02477531 | -0.050164435 |
| C10orf99 | 0.989 | 0.129769468 | 0.964220383 | 1.025656816 | -0.051971903 |
| C1orf61 | 1.013 | 0.128762688 | 0.987534909 | 1.025951883 | -0.052577267 |
| CCR2 | 1.045 | -0.025024077 | 1.018548922 | 1.025991515 | -0.052658588 |
| RGL4 | 1.614 | 0.168202424 | 1.570677587 | 1.027383643 | -0.05551715 |
| LTB | 1.743 | 0.240031318 | 1.69538364 | 1.028180033 | -0.05715418 |
| HP | 0.931 | -0.000141006 | 0.905189119 | 1.028188957 | -0.057172531 |
| TMPRSS11D | 1.243 | 0.362294572 | 1.208177991 | 1.028471536 | -0.0577537 |
| HIST1H3B | 0.891 | 0.110513231 | 0.866618174 | 1.028589544 | -0.05799645 |
| TMEM238 | 1.167 | 0.221601431 | 1.13395227 | 1.0287413 | -0.058308663 |
| MSMB | 0.901 | 0.053968748 | 0.875213438 | 1.029649242 | -0.060177563 |
| CCNA1 | 1.963 | 0.537311907 | 1.904892794 | 1.030345652 | -0.061612162 |

| STK32A | 0.68 | -0.066134582 | 0.660273947 | 1.03039518 | -0.061714227 |
|------------|-------|--------------|-------------|-------------|--------------|
| FAM3D | 1.77 | 0.461776421 | 1.717100149 | 1.031012379 | -0.062986525 |
| ICAM3 | 1.08 | 0.001054966 | 1.047036381 | 1.031012373 | -0.063956215 |
| DAAM2 | 0.664 | -0.035059864 | 0.643575613 | 1.031978846 | -0.064980338 |
| GATA3 | 1.12 | -0.250049574 | 1.084983356 | 1.032196084 | -0.065428756 |
| HSD3B2 | 1.155 | 0.13434504 | 1.119158415 | 1.032199049 | -0.065434878 |
| SPNS3 | 1.992 | 0.259368449 | 1.929802667 | 1.032373538 | -0.065795122 |
| MXRA8 | 1.359 | 0.22094262 | 1.315039071 | 1.033414452 | -0.06794543 |
| PTGDS | 1.517 | 0.200929375 | 1.466416063 | 1.034573445 | -0.070342213 |
| DCX | 1.466 | 0.071414118 | 1.41679097 | 1.034708025 | -0.070620698 |
| HIST1H2BG | 1.013 | 0.03320709 | 0.978342229 | 1.03498115 | -0.071185981 |
| INSC | 0.807 | -0.013536015 | 0.779268735 | 1.03500897 | -0.071243568 |
| AHSP | 1.662 | 0.426935602 | 1.605248437 | 1.035513526 | -0.072288263 |
| SHISA2 | 1.604 | 0.188667238 | 1.548916287 | 1.035582282 | -0.072430663 |
| STMN2 | 1.608 | 0.303729446 | 1.55246763 | 1.035805969 | -0.072894005 |
| HEPACAM2 | 0.751 | -0.0785055 | 0.724827268 | 1.036397364 | -0.074119496 |
| SLC45A3 | 1.794 | 0.447114241 | 1.730398128 | 1.03689143 | -0.075143837 |
| SLC26A4 | 2.088 | 0.427207829 | 2.013737627 | 1.037008854 | -0.075387363 |
| PMEL | 1.285 | 0.126742302 | 1.238148555 | 1.037607385 | -0.076629086 |
| CXCL8 | 1.061 | 0.140486124 | 1.022264214 | 1.038344681 | -0.078159676 |
| PNOC | 1.29 | 0.155235964 | 1.242590475 | 1.038552923 | -0.078592174 |
| S100P | 1.714 | 0.390112408 | 1.649825947 | 1.039006507 | -0.079534521 |
| AL138751.1 | 1.716 | 0.249266436 | 1.651280063 | 1.039160365 | -0.079854265 |
| IGLL1 | 0.768 | -0.009721496 | 0.73916636 | 1.039253395 | -0.08004762 |
| DNER | 2.036 | 0.42284353 | 1.956924728 | 1.040384921 | -0.082400783 |
| TMEM213 | 0.682 | 0.046134683 | 0.655039957 | 1.040618512 | -0.082886888 |
| GPR64 | 1.097 | 0.059327088 | 1.053218569 | 1.041218059 | -0.084135047 |
| DLX5 | 1.583 | 0.356158894 | 1.520499452 | 1.041236352 | -0.084173141 |
| GAPT | 1.418 | -0.083766172 | 1.358254146 | 1.04414583 | -0.090240515 |
| C2orf88 | 2.034 | 0.438286401 | 1.947262546 | 1.044411549 | -0.090795483 |
| KLK6 | 0.961 | 0.274916141 | 0.919773285 | 1.045041513 | -0.092111764 |
| CDX1 | 1.429 | 0.313097346 | 1.366937879 | 1.045564875 | -0.093205907 |
| REG4 | 0.695 | -0.012695264 | 0.664552911 | 1.046253093 | -0.094645535 |
| SPX | 1.137 | 0.187661601 | 1.086363512 | 1.046611413 | -0.09539545 |
| F2 | 1.94 | 0.355399115 | 1.853017077 | 1.047108129 | -0.096435434 |
| CA9 | 1.867 | 0.587967655 | 1.782713952 | 1.047228455 | -0.096687436 |
| AXIN2 | 0.95 | -0.115324002 | 0.906532272 | 1.047470274 | -0.097193975 |
| TRABD2A | 1.31 | 0.008630427 | 1.249126928 | 1.048336393 | -0.099009194 |
| NAPSA | 1.18 | 0.297318074 | 1.125118218 | 1.048447885 | -0.099242967 |
| DSC3 | 1.364 | 0.41037887 | 1.300705614 | 1.048454545 | -0.099256933 |
| PTPRN | 1.414 | 0.257726847 | 1.348488226 | 1.048514327 | -0.099382295 |
| GYG2 | 1.113 | 0.062354181 | 1.061730775 | 1.048699614 | -0.099770881 |
| SLC28A1 | 1.033 | 0.072911514 | 0.984578376 | 1.048843276 | -0.100072218 |

| FAM19A3 | 1.997 | 0.468919287 | 1.903307652 | 1.049014185 | -0.10043076 |
|----------|-------|--------------|-------------|-------------|--------------|
| NCAN | 2.246 | 0.537750201 | 2.140271537 | 1.049209819 | -0.100841245 |
| KRT5 | 1.76 | 0.56164433 | 1.677642471 | 1.049275534 | -0.100979147 |
| PVALB | 0.831 | 0.060000473 | 0.791741156 | 1.04949761 | -0.101445233 |
| LRRC26 | 1.845 | 0.280349912 | 1.757409375 | 1.0495982 | -0.101656382 |
| GATA4 | 1.52 | 0.067965383 | 1.448052039 | 1.049796453 | -0.102072594 |
| CPNE5 | 1.08 | 0.185402594 | 1.028791079 | 1.050185722 | -0.10289005 |
| DACH1 | 1.201 | 0.159900592 | 1.143836583 | 1.050365947 | -0.103268623 |
| C16orf89 | 1.328 | 0.18322213 | 1.263483671 | 1.050720641 | -0.104013866 |
| F7 | 0.853 | -0.198734948 | 0.811017238 | 1.051228958 | -0.105082322 |
| CYP11B1 | 0.699 | -0.181669216 | 0.664824852 | 1.051915911 | -0.106527083 |
| HIST1H4C | 1.193 | 0.359013188 | 1.131911585 | 1.053541476 | -0.109949642 |
| EFHD1 | 1.321 | -0.076864013 | 1.253589412 | 1.053624735 | -0.110125083 |
| TUBB4A | 2.11 | 0.513522809 | 1.999699413 | 1.054967949 | -0.112957374 |
| KRT17 | 2.015 | 0.577981936 | 1.90990288 | 1.054995614 | -0.113015745 |
| TGM1 | 1.474 | 0.365462743 | 1.39559378 | 1.056002165 | -0.115140573 |
| DES | 0.556 | -0.066155066 | 0.525828624 | 1.056583433 | -0.116368551 |
| HSPB2 | 1.125 | 0.050330722 | 1.064391161 | 1.057073889 | -0.117405207 |
| SCRG1 | 2.016 | 0.45473407 | 1.906722461 | 1.057157683 | -0.117582366 |
| S100B | 2.107 | 0.441371456 | 1.991924034 | 1.057572992 | -0.118460633 |
| MTRNR2L8 | 2.051 | 0.358622616 | 1.937293685 | 1.058502295 | -0.120427109 |
| SHISA8 | 1.45 | 0.242106365 | 1.369676834 | 1.058567016 | -0.120564127 |
| ATP6V1G3 | 1.559 | 0.284153059 | 1.472923429 | 1.058755765 | -0.12096377 |
| ACTG2 | 2.238 | 0.43528386 | 2.110960265 | 1.060121472 | -0.123857536 |
| SERPINE2 | 2.064 | 0.20081987 | 1.94606175 | 1.060814855 | -0.125328157 |
| KLHDC8A | 1.408 | 0.456378064 | 1.326712858 | 1.06133512 | -0.126432238 |
| SPINK2 | 2.002 | 0.484701511 | 1.886069365 | 1.061609453 | -0.12701463 |
| ARG1 | 1.259 | 0.200106184 | 1.1852039 | 1.062204283 | -0.12827794 |
| ABCB5 | 0.829 | -0.038129111 | 0.780089304 | 1.062564951 | -0.129044274 |
| S100A1 | 0.543 | -0.119809836 | 0.51013312 | 1.063938145 | -0.131964377 |
| PTPRN2 | 1.315 | 0.305401895 | 1.235682943 | 1.063991867 | -0.132078693 |
| SOX8 | 2.241 | 0.578937592 | 2.106259388 | 1.064148276 | -0.132411554 |
| NAT8 | 0.714 | -0.062831778 | 0.670630478 | 1.065228159 | -0.134711031 |
| FLT3 | 0.952 | -0.192486701 | 0.89265997 | 1.065927567 | -0.136201577 |
| APOB | 1.147 | 0.138402839 | 1.07408294 | 1.067651621 | -0.139879985 |
| MIA | 1.999 | 0.474354275 | 1.869144083 | 1.069343602 | -0.143495739 |
| BSND | 1.495 | 0.097617829 | 1.397977039 | 1.069727468 | -0.144316857 |
| SPON1 | 1.203 | 0.113645911 | 1.123735091 | 1.070229086 | -0.145390297 |
| UTF1 | 1.04 | 0.061423883 | 0.970758932 | 1.071574252 | -0.148271377 |
| ZCCHC12 | 0.95 | 0.310978772 | 0.886411768 | 1.072170059 | -0.149548634 |
| HAND2 | 2.029 | 0.396556993 | 1.892100311 | 1.072270014 | -0.149762983 |
| CCL25 | 1.161 | 0.137458705 | 1.081121943 | 1.074031283 | -0.153543198 |
| IGFBP1 | 1.197 | 0.197187738 | 1.114432543 | 1.074300863 | -0.154122344 |

| SLC24A2 | 0.798 | -0.067663792 | 0.742818791 | 1.074496296 | -0.15454229 |
|-----------|-------|--------------|-------------|-------------|--------------|
| FCN1 | 1.698 | 0.135884369 | 1.579576457 | 1.074751823 | -0.155091481 |
| TMEM119 | 1.151 | 0.044511433 | 1.069972902 | 1.075892336 | -0.157544319 |
| FABP1 | 1.914 | 0.488503816 | 1.776486244 | 1.07729403 | -0.160562427 |
| RGS20 | 2.166 | 0.67922674 | 2.010172239 | 1.07758453 | -0.161188419 |
| SLC4A1 | 1.238 | 0.361076386 | 1.148036633 | 1.078350101 | -0.162838939 |
| CD177 | 0.586 | -0.131844774 | 0.542783459 | 1.079706313 | -0.165765723 |
| KIF26A | 0.964 | 0.176486552 | 0.8920881 | 1.080520451 | -0.167524446 |
| CACNG7 | 0.879 | -0.072310201 | 0.813567125 | 1.080555934 | -0.167601127 |
| SNX22 | 2.01 | 0.453642109 | 1.858005862 | 1.081726039 | -0.170131224 |
| KREMEN2 | 1.092 | -0.001405821 | 1.007730155 | 1.083134793 | -0.17318098 |
| SLC6A17 | 1.834 | 0.368851476 | 1.692747594 | 1.083188195 | -0.173296666 |
| PTPRZ1 | 0.638 | 0.126151169 | 0.589020212 | 1.083315312 | -0.173572066 |
| HIST1H2AH | 0.869 | -0.009937102 | 0.801550026 | 1.08436253 | -0.175842097 |
| DPEP1 | 1.187 | -0.05841041 | 1.094132572 | 1.084803349 | -0.176798306 |
| RAB3B | 1.318 | 0.110678839 | 1.213625869 | 1.085907998 | -0.17919618 |
| GPM6B | 1.05 | 0.093360273 | 0.967261483 | 1.085948184 | -0.179283458 |
| GFAP | 0.764 | -0.198228893 | 0.702449991 | 1.087421937 | -0.182486469 |
| PLP1 | 1.081 | -0.032842214 | 0.993641547 | 1.087462454 | -0.182574589 |
| ANXA8 | 0.809 | 0.051536492 | 0.743658401 | 1.087744648 | -0.183188419 |
| APOD | 0.9 | -0.092462994 | 0.827169043 | 1.088609666 | -0.185071005 |
| NOX1 | 1.107 | 0.112195705 | 1.017031268 | 1.088800925 | -0.185487453 |
| HNF4A | 0.345 | -0.03425108 | 0.316493826 | 1.089420056 | -0.186836059 |
| ANXA13 | 0.67 | -0.195515928 | 0.614264193 | 1.090353824 | -0.188871461 |
| MIXL1 | 1.225 | 0.1355969 | 1.12365956 | 1.090390466 | -0.188951367 |
| LCN12 | 1.397 | 0.102580958 | 1.280687141 | 1.090894991 | -0.190051881 |
| SAA1 | 0.665 | -0.185282636 | 0.609457715 | 1.091599858 | -0.19159025 |
| FGF9 | 1.106 | 0.143505516 | 1.012559327 | 1.092390426 | -0.193316842 |
| SPDEF | 1.154 | 0.137722334 | 1.05581701 | 1.092541919 | -0.193647845 |
| CYSLTR1 | 0.817 | -0.27082044 | 0.747807777 | 1.092547686 | -0.193660446 |
| MEP1A | 0.932 | -0.033294516 | 0.852358485 | 1.093656621 | -0.196084804 |
| MMP12 | 1.114 | 0.177629816 | 1.018020012 | 1.094129975 | -0.197120403 |
| MFAP5 | 0.715 | -0.06529057 | 0.653066979 | 1.094589526 | -0.198126231 |
| HOXD8 | 0.779 | -0.287679038 | 0.710459457 | 1.095829218 | -0.200841675 |
| DMGDH | 1.087 | -0.024588296 | 0.991644433 | 1.096550241 | -0.202422431 |
| PAX9 | 1.397 | 0.148791562 | 1.273694166 | 1.096910035 | -0.203211625 |
| PNMAL2 | 1.342 | 0.299928523 | 1.223469289 | 1.096942043 | -0.203281845 |
| MMP25 | 1.533 | 0.376258459 | 1.397153313 | 1.09750901 | -0.204526027 |
| HIST1H2BO | 0.552 | 0.000633768 | 0.503098788 | 1.097571818 | -0.204663897 |
| ITIH5 | 0.824 | -0.029747614 | 0.750720849 | 1.097921498 | -0.205431615 |
| TRPS1 | 0.708 | -0.257417073 | 0.64307265 | 1.101490501 | -0.213281324 |
| KLK5 | 2.158 | 0.732527333 | 1.958419571 | 1.101814302 | -0.213994757 |
| P2RX1 | 0.798 | -0.049093255 | 0.722622366 | 1.104636759 | -0.22022237 |

| FAM101A | 1.868 | 0.41398301 | 1.690425574 | 1.105202856 | -0.221473353 |
|-----------|-------|--------------|-------------|-------------|--------------|
| LZTS1 | 1.279 | 0.354094885 | 1.155029654 | 1.107059373 | -0.225580456 |
| GAPDHS | 0.875 | 0.132202962 | 0.787942313 | 1.110758291 | -0.233783981 |
| APOA2 | 0.697 | -0.045291319 | 0.625559427 | 1.113504609 | -0.239892514 |
| HIST1H2AB | 0.756 | 0.064090074 | 0.677705513 | 1.115219593 | -0.243714741 |
| CYP17A1 | 0.859 | -0.033562578 | 0.769585601 | 1.116040659 | -0.245546752 |
| RXRG | 1.277 | 0.093730074 | 1.144359938 | 1.116245811 | -0.246004711 |
| CEACAM3 | 0.864 | -0.289526438 | 0.773580526 | 1.117436949 | -0.248665335 |
| CTSV | 1.696 | 0.570934427 | 1.513457448 | 1.120328102 | -0.255135056 |
| BEX1 | 0.637 | -0.100794143 | 0.568159306 | 1.120349202 | -0.255182334 |
| MAB21L2 | 0.815 | 0.037390156 | 0.726902304 | 1.120781191 | -0.256150477 |
| SERPINA5 | 0.993 | 0.035042104 | 0.88598334 | 1.121058155 | -0.256771387 |
| SCARF2 | 1.061 | 0.324092162 | 0.94519431 | 1.123032187 | -0.261201292 |
| PENK | 1.345 | 0.103966564 | 1.19704007 | 1.12363105 | -0.262546736 |
| TSPAN8 | 1.222 | 0.144978141 | 1.087036946 | 1.124368062 | -0.264203539 |
| HOXC10 | 1.094 | -0.061856408 | 0.970952688 | 1.126428281 | -0.268840673 |
| RNASE2 | 0.741 | -0.204572491 | 0.656248891 | 1.128722345 | -0.274014133 |
| CD1C | 1.068 | -0.200533577 | 0.945660749 | 1.128884842 | -0.274380986 |
| CHST4 | 1.325 | 0.208460492 | 1.173563023 | 1.129086062 | -0.274835335 |
| ELANE | 1.263 | 0.086187428 | 1.11786165 | 1.129547534 | -0.275877632 |
| ITLN2 | 0.293 | -0.067942899 | 0.258857238 | 1.131108389 | -0.279406187 |
| APOC3 | 1.263 | 0.052510233 | 1.115426861 | 1.132605256 | -0.282794666 |
| DERL3 | 1.267 | 0.129365126 | 1.117117665 | 1.133903404 | -0.285736929 |
| NANOGP8 | 1.46 | 0.109760109 | 1.285956323 | 1.135344477 | -0.289007081 |
| ARPP21 | 0.642 | -0.186649623 | 0.565463171 | 1.13542576 | -0.289191656 |
| EDNRB | 1.42 | 0.196599978 | 1.248072383 | 1.13736363 | -0.293596028 |
| FOXC1 | 0.936 | 0.168438701 | 0.822629691 | 1.13789145 | -0.294796952 |
| CD1E | 0.938 | -0.282002071 | 0.824332029 | 1.13828918 | -0.295702257 |
| FAM166B | 0.962 | -0.30769759 | 0.844681824 | 1.139290639 | -0.297983161 |
| SLC7A4 | 0.697 | -0.227511131 | 0.610359302 | 1.14126738 | -0.302491233 |
| AZGP1 | 0.862 | -0.307553692 | 0.755286626 | 1.141286076 | -0.302533907 |
| PRPH | 0.567 | -0.17811402 | 0.496935334 | 1.141688996 | -0.303453764 |
| CRP | 0.623 | -0.036824484 | 0.544531739 | 1.143460987 | -0.307503029 |
| CXCR2 | 0.962 | -0.217600845 | 0.84092656 | 1.144545265 | -0.309983863 |
| PTHLH | 0.578 | -0.075647956 | 0.504547233 | 1.145352626 | -0.311832638 |
| SPINK1 | 1.039 | 0.105374649 | 0.906954185 | 1.145716312 | -0.312665868 |
| MLANA | 0.743 | -0.228129377 | 0.648610237 | 1.14579852 | -0.312854248 |
| CDO1 | 1.085 | -0.067159315 | 0.943446224 | 1.149880752 | -0.322225744 |
| MEOX1 | 0.946 | -0.165587697 | 0.821891876 | 1.150633743 | -0.323958011 |
| SCG5 | 1.491 | 0.304518147 | 1.292199693 | 1.154022187 | -0.331767208 |
| GATA6 | 1.436 | 0.288763385 | 1.242613235 | 1.155737225 | -0.335728534 |
| TLX2 | 0.959 | 0.007151656 | 0.828515169 | 1.156961812 | -0.338560635 |
| CALB2 | 0.764 | 0.050656456 | 0.660005921 | 1.15770147 | -0.340272694 |

| ATCAY | 0.881 | -0.027391324 | 0.761299765 | 1.157741122 | -0.340364506 |
|-----------|-------|--------------|-------------|-------------|--------------|
| CHRNA3 | 1.389 | 0.332760426 | 1.198476049 | 1.158598231 | -0.34234986 |
| MAB21L1 | 0.815 | -0.219443262 | 0.701296078 | 1.162677839 | -0.351819758 |
| HIST1H3D | 0.909 | -0.213443202 | 0.781814193 | 1.163067836 | -0.351819738 |
| CPA4 | 1.663 | 0.215726686 | 1.428001645 | 1.16443675 | -0.355912944 |
| PRAC2 | 1.039 | 0.213720080 | 0.891980686 | 1.164540341 | -0.355912944 |
| ESR1 | 0.749 | -0.321767764 | 0.639651751 | 1.170545496 | -0.370176758 |
| CD1B | 0.749 | -0.321707704 | 0.82990195 | 1.171620789 | -0.372695274 |
| | 0.972 | 0.017396091 | 0.820615559 | 1.171878349 | -0.373298864 |
| C1QTNF4 | | | | | |
| GPRC5B | 1.043 | 0.04955383 | 0.888708185 | 1.173721248 | -0.377621569 |
| PLG | 1.219 | 0.136875212 | 1.035768074 | 1.177218417 | -0.3858432 |
| MECOM | 0.961 | -0.160345726 | 0.815763163 | 1.177602311 | -0.386747203 |
| SNCA | 0.824 | -0.350013439 | 0.699771375 | 1.177917247 | -0.38748904 |
| BHMT2 | 0.764 | -0.089939388 | 0.646979833 | 1.180222216 | -0.392924478 |
| TCF21 | 0.603 | -0.316474635 | 0.510993896 | 1.180282886 | -0.393067691 |
| TMEM100 | 0.714 | -0.094557437 | 0.604214819 | 1.181677262 | -0.396361152 |
| MGAM | 0.671 | 0.047632976 | 0.567584391 | 1.182102409 | -0.397366105 |
| HIST1H4D | 1.225 | 0.078105698 | 1.032945748 | 1.186302448 | -0.407313498 |
| KCNJ16 | 0.588 | -0.225222107 | 0.491816324 | 1.194854865 | -0.427678148 |
| PRDM14 | 1.06 | 0.235941314 | 0.885077807 | 1.197121493 | -0.43309987 |
| GNG7 | 1.671 | 0.22259335 | 1.391506892 | 1.201142163 | -0.442742497 |
| GCG | 0.983 | -0.001762068 | 0.817371579 | 1.202052886 | -0.444931142 |
| G0S2 | 0.512 | -0.138750686 | 0.426147225 | 1.202093475 | -0.445028722 |
| MT1H | 0.968 | -0.050541564 | 0.804795461 | 1.202746903 | -0.446600114 |
| KL | 0.867 | -0.129546412 | 0.717446256 | 1.208142167 | -0.459607495 |
| ADRB1 | 0.386 | -0.194212049 | 0.318084259 | 1.212268122 | -0.469593999 |
| HRG | 1.238 | 0.022705776 | 1.017564866 | 1.216891879 | -0.480825845 |
| RASGRP3 | 0.871 | -0.042439086 | 0.714179939 | 1.21976344 | -0.48782285 |
| FGF18 | 0.748 | -0.178834529 | 0.613110365 | 1.220036223 | -0.488488385 |
| HSPB6 | 0.534 | -0.133755024 | 0.436889921 | 1.221883206 | -0.492998568 |
| KLK4 | 0.491 | -0.070658309 | 0.401707285 | 1.22267024 | -0.494922515 |
| SLC26A7 | 0.435 | -0.059268312 | 0.355545996 | 1.223784236 | -0.497647857 |
| HIST1H2AI | 0.96 | 0.112904797 | 0.784015874 | 1.22476817 | -0.50005707 |
| SP7 | 0.576 | -0.173793585 | 0.468400624 | 1.228754416 | -0.509837414 |
| HMP19 | 0.286 | -0.095140181 | 0.232647334 | 1.230864646 | -0.515027777 |
| SLC30A2 | 1.067 | 0.042596943 | 0.866662825 | 1.231028428 | -0.515430991 |
| ММР9 | 0.512 | -0.206935175 | 0.415093431 | 1.234391872 | -0.523723294 |
| HIST1H4L | 1.853 | 0.750426904 | 1.50015993 | 1.235006271 | -0.52524049 |
| VENTX | 0.84 | -0.207200366 | 0.678235537 | 1.238691233 | -0.534355972 |
| ENPEP | 1.364 | 0.586093914 | 1.100901254 | 1.238921266 | -0.534925904 |
| AR | 1.032 | -0.360425625 | 0.82968557 | 1.244140367 | -0.547885253 |
| PGLYRP1 | 0.714 | -0.096725776 | 0.571090556 | 1.25007343 | -0.562683581 |
| CA14 | 0.492 | -0.227798968 | 0.392875704 | 1.252630133 | -0.569082249 |

| LUCTALIOAL | 0.400 | 0.002047005 | 0.206222600 | 4 25 6200500 | 0.570242000 |
|------------|-------|--------------|-------------|--------------|--------------|
| HIST1H2AJ | 0.498 | -0.062917865 | 0.396323689 | 1.256309599 | -0.578313808 |
| RNF186 | 0.821 | -0.174113029 | 0.651606394 | 1.259325484 | -0.585900675 |
| HIST1H2BH | 0.48 | -0.078818772 | 0.380888544 | 1.261261714 | -0.590781112 |
| SLC18A1 | 0.666 | -0.319269593 | 0.527488586 | 1.261798709 | -0.592135982 |
| CYP11A1 | 1.023 | -0.086015873 | 0.806308074 | 1.269143038 | -0.61072405 |
| CFHR1 | 0.829 | -0.121208783 | 0.648374618 | 1.279063196 | -0.63600266 |
| NEFL | 1.06 | -0.055107899 | 0.827239929 | 1.281379019 | -0.64193219 |
| AMPD1 | 0.635 | -0.22263895 | 0.495079555 | 1.283630554 | -0.647707398 |
| SNCG | 1.004 | -0.164962829 | 0.779403061 | 1.28823462 | -0.659548435 |
| SHISA3 | 0.836 | -0.196983252 | 0.648962645 | 1.288724287 | -0.660810288 |
| DLX3 | 0.963 | 0.069370411 | 0.745374356 | 1.292306847 | -0.670056988 |
| FOXD1 | 0.761 | -0.06294301 | 0.588960124 | 1.292579255 | -0.670761132 |
| RBP5 | 0.727 | -0.240067864 | 0.558782802 | 1.301152441 | -0.692997675 |
| UPK3B | 0.776 | -0.043892352 | 0.594746487 | 1.304478693 | -0.701664662 |
| CLDN10 | 0.72 | -0.138924758 | 0.548617851 | 1.312907432 | -0.723725926 |
| PHOX2B | 0.553 | -0.108894245 | 0.417486645 | 1.32347429 | -0.751584196 |
| APOH | 0.789 | -0.158764935 | 0.594376755 | 1.327700651 | -0.762789019 |
| NLRP7 | 0.633 | -0.052956106 | 0.475754467 | 1.329651908 | -0.767974197 |
| HIST1H3J | 0.602 | -0.089975791 | 0.451256198 | 1.334784034 | -0.781648417 |
| IGJ | 0.653 | -0.234949918 | 0.48737515 | 1.339483601 | -0.794216318 |
| S100A14 | 1.395 | 0.04291335 | 1.031754017 | 1.352038119 | -0.828007075 |
| CLRN3 | 0.803 | -0.218706983 | 0.592435381 | 1.355577495 | -0.837590345 |
| DBH | 0.503 | -0.321832965 | 0.367234041 | 1.368454737 | -0.872668367 |
| TUBB2B | 0.481 | -0.154151597 | 0.350939111 | 1.369608337 | -0.875826998 |
| SERPINB10 | 0.72 | -0.040941131 | 0.523702715 | 1.374753423 | -0.889946974 |
| HIST1H2BL | 0.491 | -0.001792065 | 0.357040016 | 1.375957111 | -0.893257972 |
| IFITM5 | 0.764 | -0.179542792 | 0.551284236 | 1.386640044 | -0.922770613 |
| HIST1H2AM | 0.62 | -0.16164287 | 0.44467274 | 1.394835018 | -0.945564729 |
| NPW | 0.548 | -0.165210044 | 0.387359865 | 1.4152148 | -1.002832931 |
| SERPINA6 | 0.899 | -0.073630128 | 0.634774764 | 1.415664202 | -1.004105133 |
| SPOCK3 | 0.697 | -0.29688517 | 0.491771742 | 1.418102869 | -1.011015747 |
| DEFA4 | 0.463 | -0.150777092 | 0.325717648 | 1.422745395 | -1.02420446 |
| MAG | 0.833 | -0.370446424 | 0.580893704 | 1.433547007 | -1.055057021 |
| AGXT | 0.653 | -0.180991549 | 0.45110028 | 1.44769011 | -1.095806656 |
| HIST1H1D | 0.465 | -0.205414608 | 0.317818751 | 1.461829974 | -1.136946872 |
| MAL | 0.394 | -0.076096794 | 0.267346888 | 1.473020514 | -1.169789436 |
| HOXA5 | 0.538 | -0.110278508 | 0.361415055 | 1.489135584 | -1.217524786 |
| RSPO1 | 0.333 | -0.046618483 | 0.222135725 | 1.500294629 | -1.250883972 |
| PIGR | 0.456 | -0.19249366 | 0.300625479 | 1.517774464 | -1.303639325 |
| INSM2 | 0.635 | -0.058967694 | 0.41777855 | 1.521041013 | -1.313565763 |
| TTR | 0.661 | -0.309022871 | 0.434229224 | 1.522011633 | -1.316519411 |
| | - | | = | | |
| DKK1 | 0.819 | -0.115124272 | 0.535233063 | 1.530398939 | -1.342120914 |

| CLDN6 | 0.484 | -0.108162919 | 0.312302332 | 1.551137562 | -1.406027737 |
|-----------|-------|--------------|-------------|-------------|--------------|
| PADI4 | 0.355 | -0.108102919 | 0.22831264 | 1.555252957 | -1.41881176 |
| | | | | | |
| F13B | 0.612 | -0.146155891 | 0.393070692 | 1.558071898 | -1.42758804 |
| REEP6 | 0.8 | -0.526336227 | 0.512829074 | 1.560010322 | -1.433632205 |
| SOX18 | 0.956 | -0.174669178 | 0.612298255 | 1.560986508 | -1.436678877 |
| STAR | 0.755 | -0.03604492 | 0.482831175 | 1.564582119 | -1.447917206 |
| CPB1 | 0.65 | -0.156810583 | 0.415668943 | 1.564685953 | -1.448242131 |
| NNAT | 0.733 | -0.257714881 | 0.465201521 | 1.576591342 | -1.485640261 |
| TMEM252 | 0.709 | -0.380298835 | 0.449724356 | 1.576844502 | -1.486438585 |
| RAB44 | 0.562 | -0.156242442 | 0.35608577 | 1.577004286 | -1.486942519 |
| RAB3C | 0.575 | -0.186138322 | 0.363869528 | 1.580808875 | -1.498956699 |
| MGP | 0.53 | -0.222041544 | 0.33286098 | 1.590771848 | -1.530555073 |
| TM4SF4 | 1.246 | 0.090293725 | 0.783191813 | 1.590834722 | -1.530755111 |
| CNTFR | 1.018 | 0.024145351 | 0.634728839 | 1.60326324 | -1.570453017 |
| FAM19A4 | 0.734 | -0.120708095 | 0.452375726 | 1.622931158 | -1.633905542 |
| NTRK1 | 0.527 | -0.273285165 | 0.322195882 | 1.634682511 | -1.672186912 |
| MTRNR2L12 | 0.66 | -0.320639279 | 0.401591742 | 1.64362537 | -1.701504357 |
| BHMT | 0.417 | -0.082849332 | 0.25140814 | 1.656939427 | -1.745448265 |
| EPHX3 | 0.702 | -0.083789827 | 0.412617348 | 1.700293872 | -1.89099925 |
| ADH1A | 0.427 | -0.233754326 | 0.251337311 | 1.700686566 | -1.892334795 |
| ATP1A3 | 0.311 | -0.154145657 | 0.182399234 | 1.705719651 | -1.909479528 |
| STEAP2 | 0.694 | -0.336997351 | 0.406500668 | 1.708118243 | -1.917667933 |
| CLC | 1.093 | -0.0692826 | 0.631784721 | 1.729619612 | -1.991584001 |
| NANOG | 0.448 | -0.111751828 | 0.255357378 | 1.754263276 | -2.07743964 |
| RAB38 | 1.218 | 0.011710493 | 0.693551266 | 1.756764139 | -2.086220241 |
| MB | 1.011 | -0.204507949 | 0.573373581 | 1.764037122 | -2.111826966 |
| MUC13 | 0.398 | -0.120166161 | 0.221572861 | 1.797809395 | -2.232118621 |
| TMEM151A | 0.373 | -0.140224075 | 0.206073393 | 1.811111796 | -2.280125938 |
| EMR3 | 0.75 | -0.434889489 | 0.413027517 | 1.814955095 | -2.294061998 |
| STMN4 | 0.624 | -0.311338616 | 0.339087748 | 1.841176695 | -2.389931623 |
| KRTDAP | 1.194 | 0.042802381 | 0.633148015 | 1.88649953 | -2.558880476 |
| NPY | 0.489 | -0.059769148 | 0.256780952 | 1.904628593 | -2.627610076 |
| HNF1B | 0.514 | -0.109208034 | 0.269520451 | 1.907305881 | -2.637815724 |
| ATP6V0D2 | 0.693 | -0.293735175 | 0.355856907 | 1.947416659 | -2.792431642 |
| UPK3A | 0.615 | -0.160686355 | 0.311585263 | 1.973820766 | -2.895968414 |
| C7 | 0.703 | -0.412823787 | 0.352697974 | 1.993901485 | -2.975643133 |
| SNAP91 | 0.501 | -0.086869256 | 0.250999959 | 1.99417987 | -2.976753352 |
| SLC22A31 | 0.719 | -0.044144697 | 0.356958182 | 2.012965727 | -3.052031019 |
| CDH15 | 0.559 | -0.224460866 | 0.271447793 | 2.060106799 | -3.244040022 |
| HABP2 | 0.618 | -0.384958946 | 0.29582707 | 2.088707445 | -3.362698791 |
| ACSM2B | 0.573 | -0.138812211 | 0.272595698 | 2.101379842 | -3.415797241 |
| KRT20 | 0.373 | -0.138812211 | 0.201812266 | 2.101379842 | -3.56919834 |
| | | | | | |
| RBP4 | 0.793 | -0.155032272 | 0.364316884 | 2.175637314 | -3.733397723 |

| CRISP3 | 0.642 | -0.151884813 | 0.293490643 | 2.18651665 | -3.780855059 |
|------------|-------|--------------|-------------|-------------|--------------|
| AC234582.1 | 0.56 | -0.217414928 | 0.251808182 | 2.222096617 | -3.937713373 |
| SPIB | 0.613 | -0.086721689 | 0.275424557 | 2.224576425 | -3.948740269 |
| BMPER | 0.361 | -0.11761039 | 0.158947718 | 2.269397856 | -4.150166629 |
| GIP | 0.419 | -0.129244625 | 0.184141517 | 2.274238165 | -4.172159232 |
| KRT16 | 1.084 | 0.00501004 | 0.447637353 | 2.42240068 | -4.868025054 |
| G6PC | 1.082 | -0.299192719 | 0.411693039 | 2.628963606 | -5.911449643 |
| HPX | 0.688 | -0.293604305 | 0.255517581 | 2.690911217 | -6.241003176 |
| DCDC2 | 0.489 | -0.192951805 | 0.178039946 | 2.747949732 | -6.551227729 |
| DRD2 | 0.369 | -0.211609786 | 0.12809265 | 2.87708176 | -7.277599456 |
| MUC15 | 1.094 | -0.056172309 | 0.380027561 | 2.879828164 | -7.293410252 |
| TH | 1.01 | -0.165393354 | 0.344165144 | 2.936054087 | -7.620413602 |
| GJB1 | 0.579 | -0.323613245 | 0.193850822 | 2.985762955 | -7.914780425 |
| DDC | 0.66 | -0.152472333 | 0.220307159 | 2.993645849 | -7.961915467 |
| AGT | 0.669 | -0.360472419 | 0.209234692 | 3.195311631 | -9.210016416 |
| KNG1 | 0.455 | -0.342660133 | 0.130740413 | 3.4768269 | -11.08832529 |
| TCN1 | 0.395 | -0.210341915 | 0.113313179 | 3.485592736 | -11.14935672 |
| KCNQ2 | 0.364 | -0.094063538 | 0.101433492 | 3.584352274 | -11.84758123 |
| CST1 | 0.832 | -0.506823178 | 0.211196759 | 3.939961255 | -14.52329469 |
| REG1A | 0.283 | -0.095522646 | 0.070908428 | 3.988458017 | -14.90779735 |
| SYP | 0.39 | -0.183558862 | 0.089659539 | 4.350348064 | -17.92552828 |
| CPB2 | 0.316 | -0.103721055 | 0.064542392 | 4.89089016 | -22.92080656 |
| OCA2 | 0.601 | -0.091329868 | 0.121481331 | 4.945672084 | -23.45967236 |
| ELAVL3 | 0.346 | -0.132662253 | 0.069717655 | 4.960516693 | -23.60672586 |
| TNR | 0.496 | -0.262264774 | 0.079032417 | 6.274341106 | -38.36735632 |
| ISL1 | 0.566 | -0.106336722 | 0.0851301 | 6.646545853 | -43.17657178 |
| BCHE | 0.368 | -0.120232115 | 0.05251209 | 7.002673373 | -48.03743437 |
| RUNDC3A | 0.453 | -0.224651017 | 0.061679606 | 7.3435958 | -52.92839927 |
| NR1H4 | 0.323 | -0.104533289 | 0.043689806 | 7.403540741 | -53.8124155 |
| ORM2 | 0.868 | -0.250368494 | 0.110230378 | 7.873971868 | -60.99943297 |
| NDP | 0.474 | -0.273410874 | 0.058972005 | 8.033724479 | -63.540729 |
| SFTA3 | 0.332 | -0.099336468 | 0.040327498 | 8.229370242 | -66.72253457 |
| GCGR | 0.292 | -0.124791096 | 0.035358447 | 8.266859137 | -67.34095999 |
| CLDN16 | 0.516 | -0.144287254 | 0.057478676 | 8.979259153 | -79.62709494 |
| VTN | 0.465 | -0.150982615 | 0.050002764 | 9.302356409 | -85.53383476 |
| AMER2 | 0.339 | -0.186513275 | 0.031821294 | 10.63916596 | -112.1918524 |
| AOC1 | 0.331 | -0.124805365 | 0.030289827 | 10.9153548 | -118.1449704 |
| LGR5 | 0.561 | -0.116743318 | 0.044418417 | 12.63217016 | -158.5717231 |
| CPLX2 | 0.388 | -0.161963694 | 0.028233619 | 13.74317457 | -187.8748474 |
| CDK5R2 | 0.333 | -0.169813564 | 0.022253044 | 14.96378562 | -222.91488 |
| C8B | 0.49 | -0.127774104 | 0.031206119 | 15.71201396 | -245.8673826 |
| NKX2-1 | 0.326 | -0.102801441 | 0.01803894 | 18.08462956 | -326.0538264 |
| SLC4A4 | 0.442 | -0.202537075 | 0.023309819 | 18.9805361 | -359.2607508 |

| LIN28A | 0.335 | -0.170681459 | 0.013588191 | 24.67583362 | -607.8967649 |
|--------|-------|--------------|-------------|-------------|--------------|
| IGF2 | 1.057 | -0.113417266 | 0.036175563 | 29.22939874 | -853.3577505 |
| CHGA | 0.417 | -0.119431028 | 0.013980359 | 29.81756086 | -888.0869355 |
| ORM1 | 0.697 | -0.253404712 | 0.013763406 | 50.64618492 | -2564.036047 |
| UGT2B4 | 0.34 | -0.109563847 | 0.002050723 | 166.0051034 | -27556.69435 |
| DEFA3 | 0.517 | -0.265493269 | 5.55E-17 | 9.31212E+15 | -8.67156E+31 |
| INS | 0.495 | -0.215801525 | 2.78E-17 | 1.79E+16 | -3.18687E+32 |