**Supplementary methods**

**Immunohistochemistry**

Mouse tissues were fixed overnight in 4% paraformaldehyde (PFA), dehydrated in an ethanol gradient series, washed in Histoclear and embedded in wax. Sections were cut at 4 μm, rehydrated and antigen retrieval was obtained by gently boiling sections for 20 minutes in the appropriate buffer, see below, and then cooled. Sections were treated with 3% $H_2O_2$ to block endogenous peroxidase activity, washed with PBS and blocked in 10% sheep serum. Primary antibodies in 2.5% horse serum were incubated overnight at 4°C. Anti-mouse or anti-rabbit ImmPRESS HRP detection kits (Vector Laboratories), or anti-sheep VisUCyte HRP detection reagent (Bio-Techne) were used according to manufacturer's instructions. Staining was carried out using DAB chromogen (Sigma) and sections were counterstained with haematoxylin. For all stains, sections were processed from at least three animals of each genotype. The following antibodies were processed for antigen retrieval in citrate buffer (0.1 M sodium citrate pH6, 0.05% Tween); Ki67 (Abcam ab16667), Hoxb9 (Santa Cruz sc-398500), Sf-1 (Abcam ab65815), DAB2 (BD Transduction Labs 610464), Tyrosine Hydroxylase (Merck AB152), 20α HSD (a kind gift from Yacob Weinstein), β-catenin (BD Transduction Labs 610153), Lef1 (Cell Signalling Technology 2230), cleaved Caspase 3 (Abcam ab2302), Fosb (Cell Signalling Technology 2251). Antigen retrieval for Cyp11b1 (2625, a kind gift from Celso Gomez-Sanchez) and Cyp11b2 (2084, a kind gift from Celso Gomez-Sanchez) antibodies was 1 mM EDTA, 10 mM Diethanolamine pH 9.

**Taqman gene expression probes**

Gapdh Mm99999915_g1, Hoxb9 Mm01700220_m1, Sf-1/Nr5a1 Mm00446826_m1, Shh Mm00436528_m1, Ptch1 Mm00436026_m1, Axin2 Mm00443610_m1, Cyp11b1

Mm01204952_m1, Cyp11b2 Mm01204955_g1, Akr1c18 Mm00506289_m1, Pik3c2g Mm00440781_m1, Cdk1 Mm00772472_m1, Ccnb1 Mm03053893_gH, Ccnb2 Mm01171453_m1, Ccne1 Mm01266311_m1, Knstrn Mm00518200_m1, Fos Mm00487425_m1, Fosb Mm00500401_m1, JunB Mm00492781_s1, GAPDH Hs03929097_g1, PBX1 Hs00231228_m1, HOXA10 Hs00538183_m1, HOXA11 Hs00194149_m1, HOXA13 Hs00426284_m1, LEF1 Hs01547250_m1, AXIN2 Hs00610344_m1.

**Supplementary data**
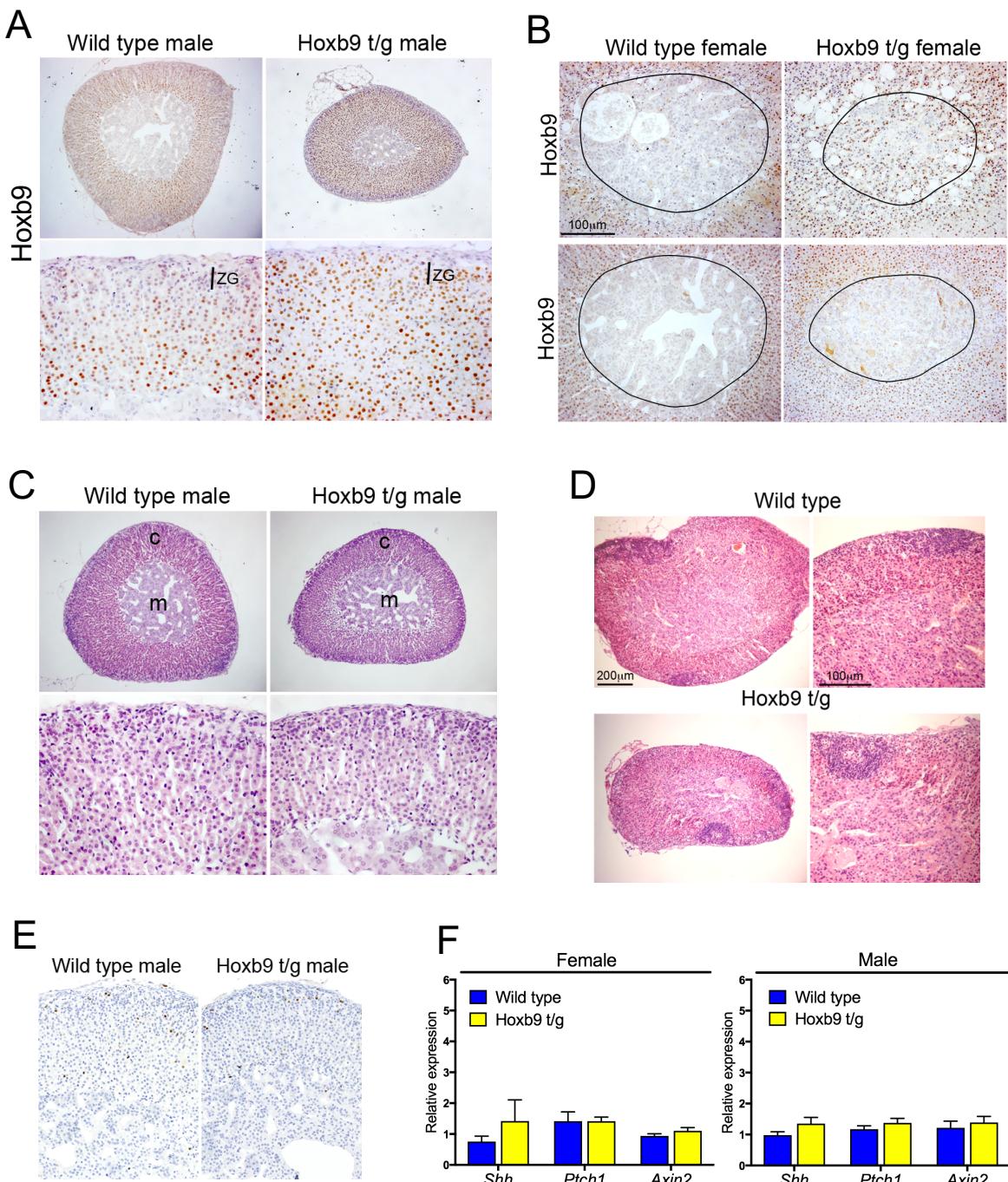


**Figure S1.** (A) Hoxb9 immunohistochemistry on sections of male wild type and Hoxb9 t/g adrenal glands. ZG is zona glomerulosa. (B) Hoxb9 expression in the medulla of 3-month-old female wild type and Hoxb9 t/g adrenal glands. The medulla is highlighted with a black line. (C) Haematoxylin and eosin (H & E) stain on sections from wild type and Hoxb9 t/g adrenal glands. c is cortex, m is medulla. (D) H & E stain of sections from wild type and Hoxb9 transgenic 18-month-old male adrenal glands. (E) Ki67 immunohistochemistry on sections of wild type and Hoxb9 t/g male adrenal glands. (F) qRT-PCR of *Shh*, *Ptch1* and *Axin2* on wild type and Hoxb9 t/g adrenal glands. Hoxb9 t/g indicates Sf1:Hoxb9 transgenic.
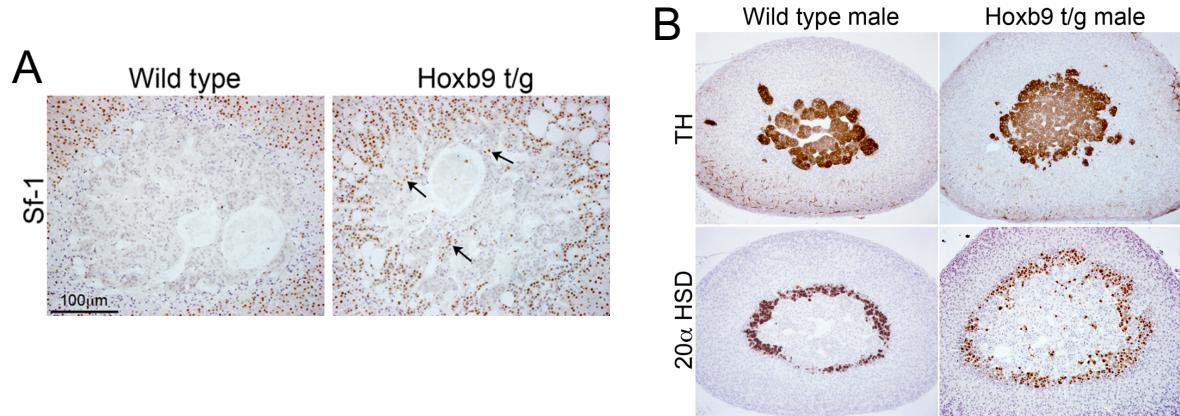
**Figure S2.** (A) Sf-1 IHC stain on sections of wild type and Hoxb9 t/g female adrenals from 3-month-old animals. Arrows indicate positive cells in the medulla. (B) TH and 20α-HSD IHC stains on sections of wild type and Hoxb9 t/g male adrenal glands from 3-week-old animals.
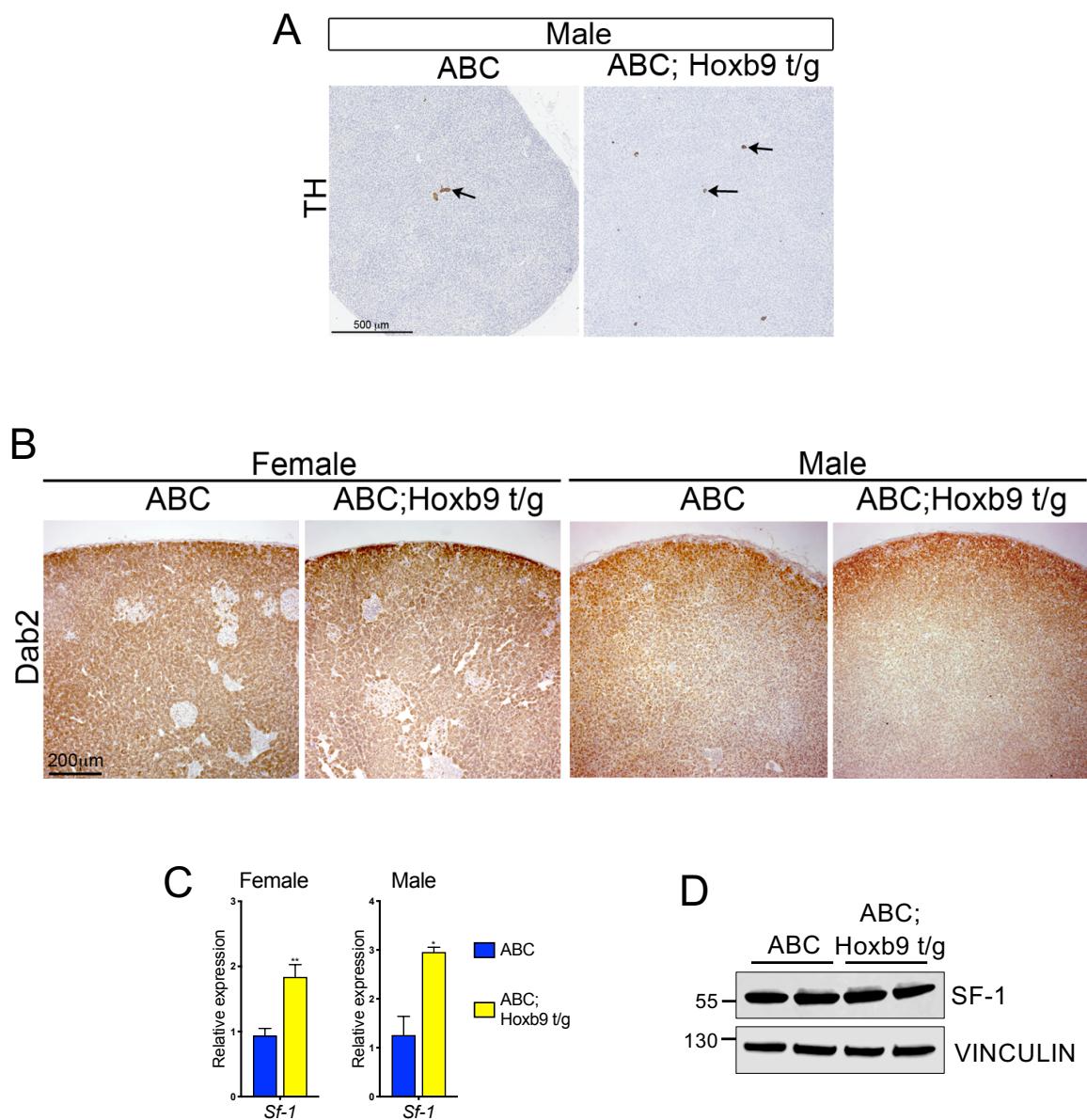
**Figure S3.** (A) Medulla marker TH stains on sections of ABC and ABC; Hoxb9 t/g male 3-month-old adrenal tumours. Arrows indicate few positive cells in these tumours. (B) ZG marker Dab2 stains on sections of ABC and ABC; Hoxb9 t/g 3-month-old adrenals showing expression throughout the tumours. (C) qRT-PCR of *Sf-1* on ABC and ABC; Hoxb9 t/g adrenal tumours. The data represent mean ± SD from three biological repeats. Students t-test, ** $p < 0.01$, * $p < 0.05$. (D) Western blot analysis of SF-1 on ABC and ABC; Hoxb9 t/g adrenal tumours from female animals. Adrenals from 2 animals of each genotype are shown. Vinculin is used as a loading control. ABC indicates Ctnnb1 mutant tumours, ABC; Hoxb9 t/g indicates double mutant tumours.
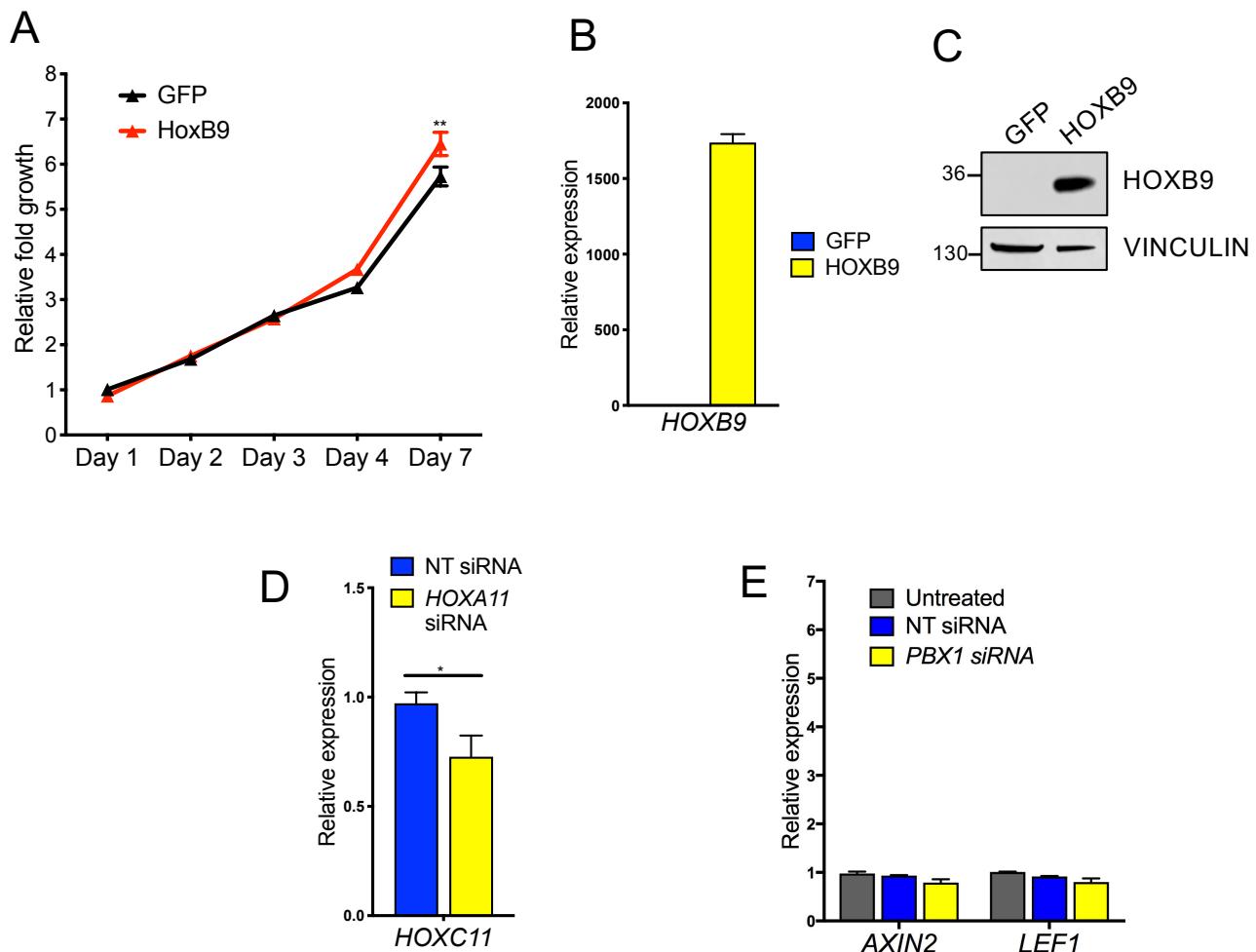
**Figure S4.** (A) Growth curve of H295R cells expressing GFP or HOXB9. The data represent mean ± SD from three biological repeats. One-way ANOVA, ** $p < 0.01$. (B) qRT-PCR of *HOXB9* in H295R cells expressing GFP or HOXB9. (C) Western blot analysis of HOXB9 in H295R cells expressing GFP or HOXB9. Vinculin is used as a loading control. (D) qRT-PCR of *HOXC11* in H295R cells treated with a NT siRNA or an siRNA targeting *HOXA11*. * $p < 0.05$. (E) qRT-PCR of *AXIN2* and *LEF1* in H295R cells untreated, treated with a NT siRNA or an siRNA targeting *PBX1*. The data represent mean ± SD from three biological repeats.
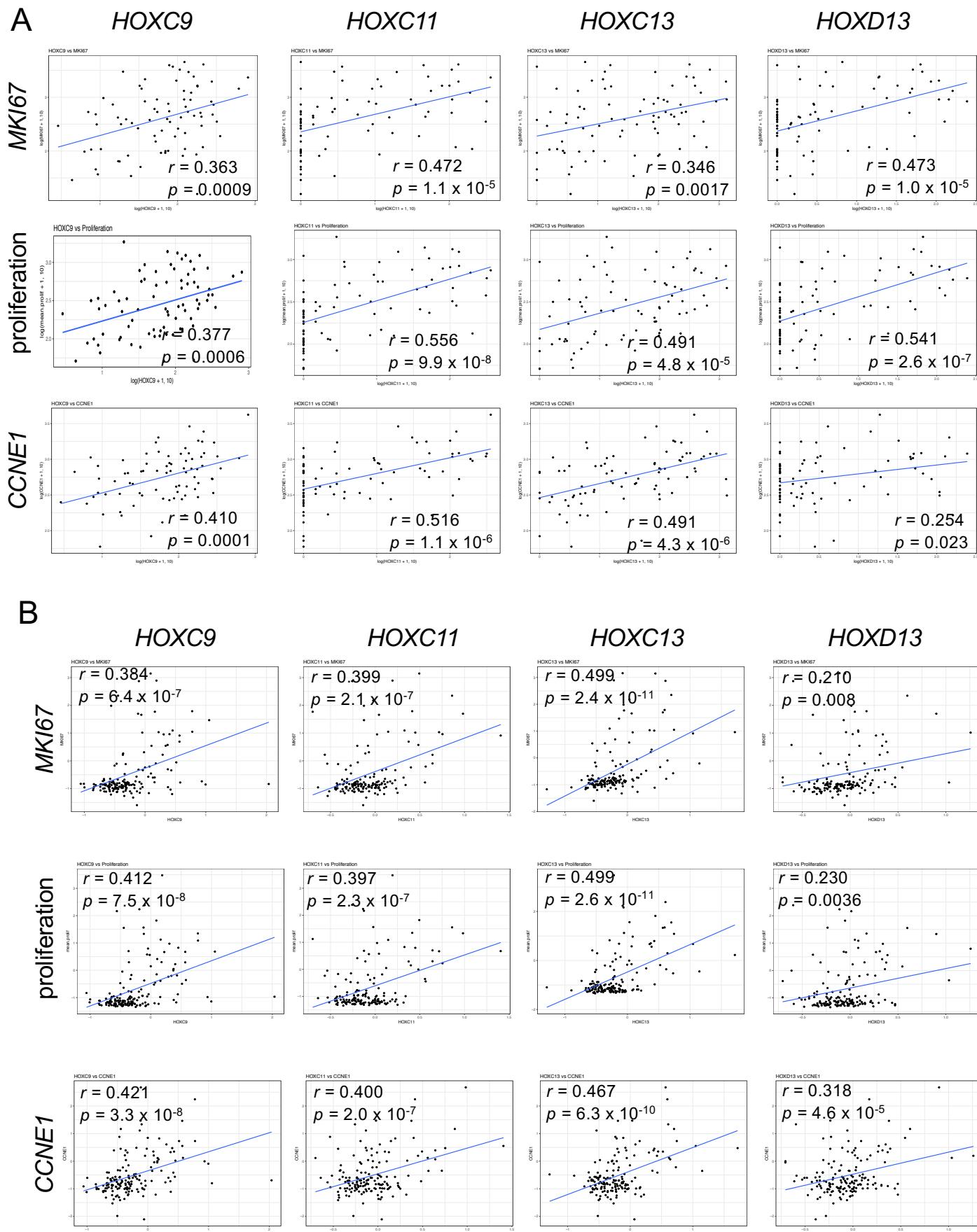
**Figure S5.** (A) TCGA cohort HOX gene correlations with *MKI67*, the proliferation gene signature and *CCNE1*. (B) Cochin cohort HOX gene correlations with *MKI67*, the proliferation gene signature and *CCNE1.*
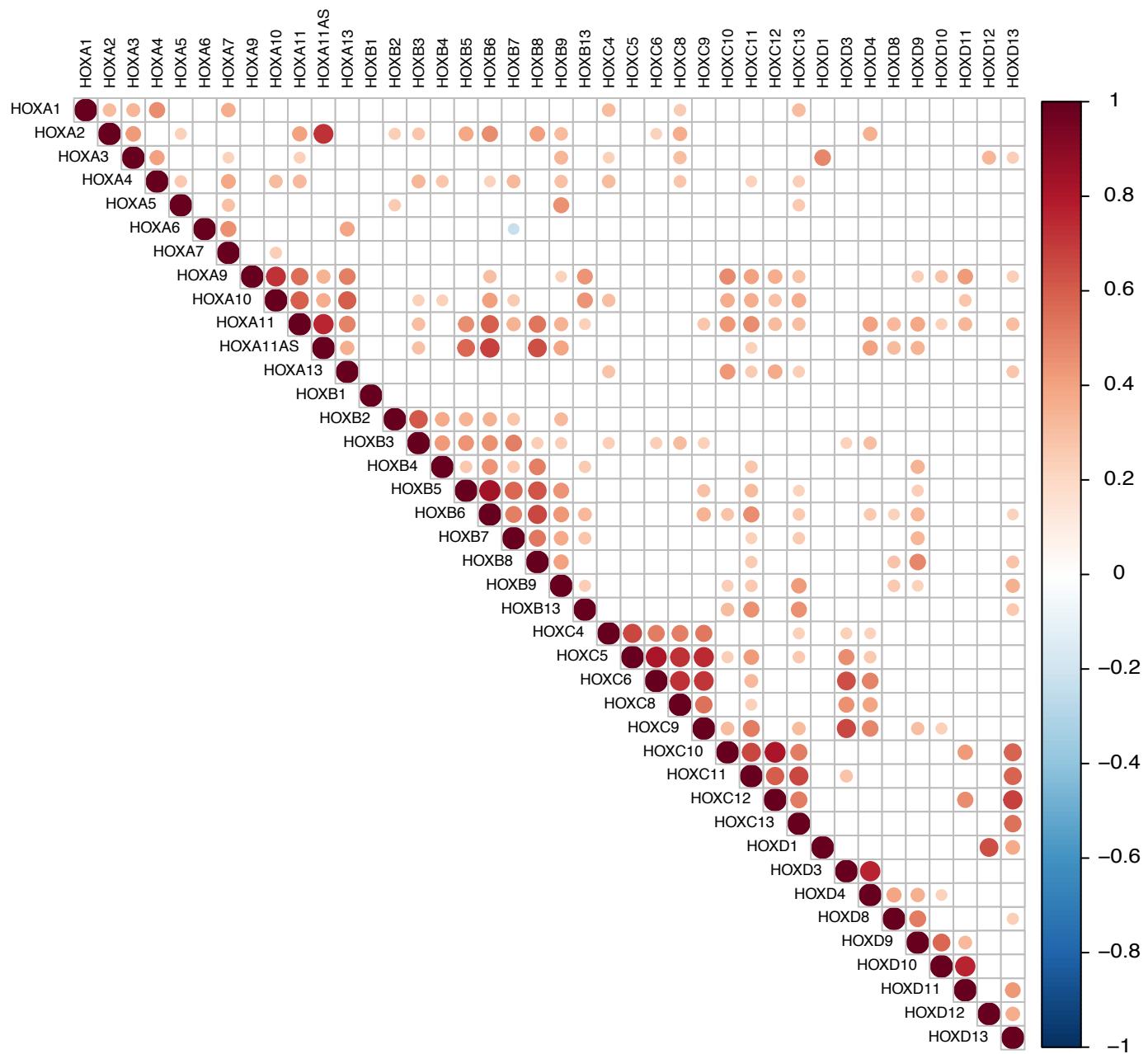
**Figure S6.** Correlogram of HOX gene expression correlation with the expression of other HOX genes in ACC TCGA patient samples. Colour scale is the correlation r value and spot size is the p value.
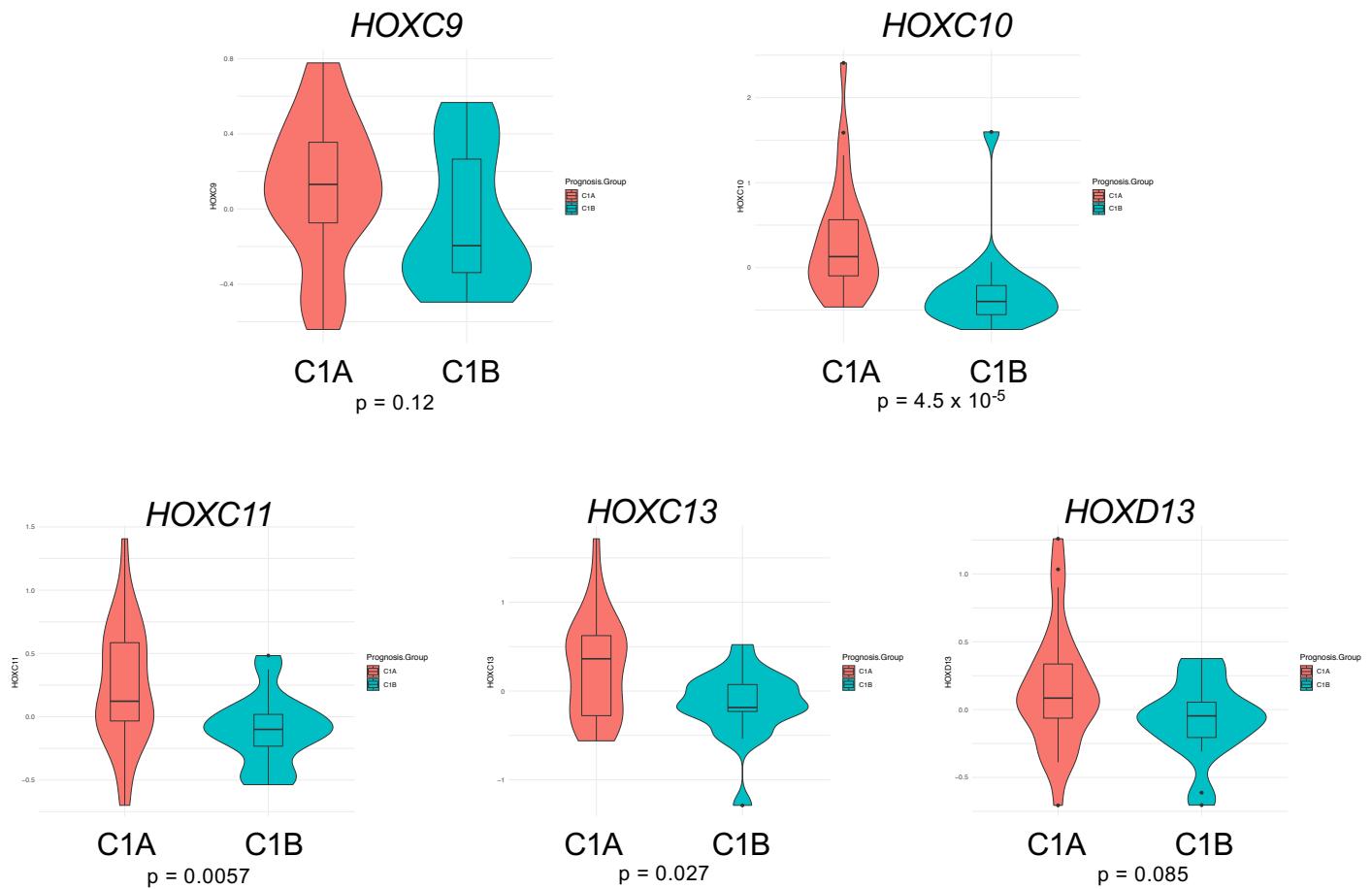
**Figure S7.** Cochin cohort HOX gene expression in C1A and C1B sub-types.

**Figure S8.** Kaplan Meier survival curves for ACC patients from the TCGA cohort that had either high or low *HOXC9, HOXC11* or *HOXC13* expression.

# Cochin cohort overall survival

## HOXC9
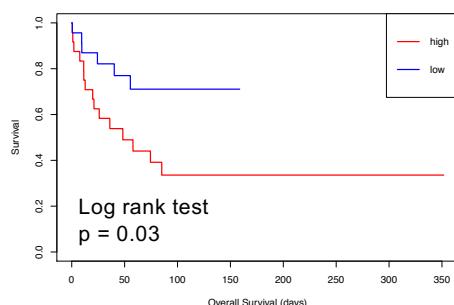


## HOXC11
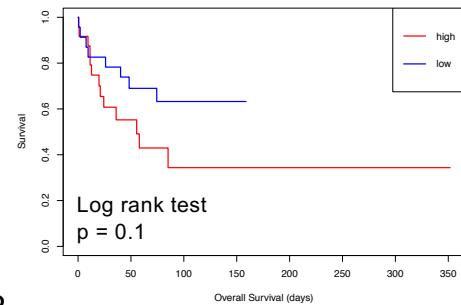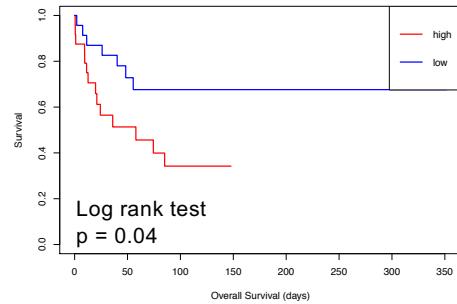


## HOXC13



# Cochin cohort - disease free survival

## HOXC9
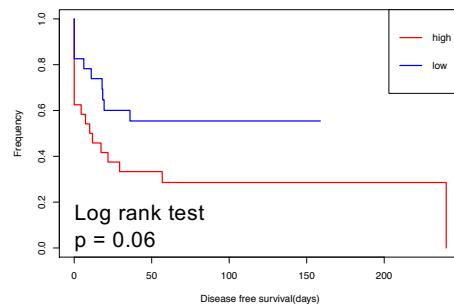


## HOXC11
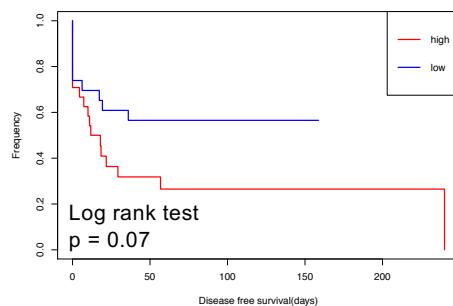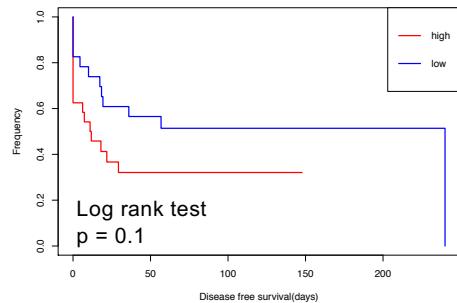


## HOXC13



**Figure S9.** Kaplan Meier survival curves for ACC patients from the Cochin cohort that had either high or low *HOXC9, HOXC11* or *HOXC13* expression.
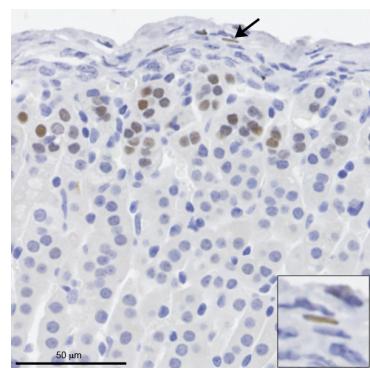
**Figure S10.** Fosb staining on a section of a 3-month-old male adrenal gland. Arrow indicates a positive cell in the capsule that is also shown at high magnification.

**Table S1. Genes used for the proliferation signature**

| Probe Set ID | Gene Symbol | Gene Name |
|---|---|---|
| 201291_s_at | TOP2A | Topoisomerase (DNA) II alpha 170kDa |
| 201292_at | TOP2A | Topoisomerase (DNA) II alpha 170kDa |
| 201890_at | RRM2 | Ribonucleotide reductase M2 |
| 202095_s_at | BIRC5 | Baculoviral IAP repeat-containing 5 |
| 202503_s_at | KIAA0101 | KIAA0101 |
| 202580_x_at | FOXM1 | Forkhead box M1 |
| 202589_at | TYMS | Thymidylate synthetase |
| 202705_at | CCNB2 | Cyclin B2 |
| 202870_s_at | CDC20 | Cell division cycle 20 homolog (S. cerevisiae) |
| 202954_at | UBE2C | Ubiquitin-conjugating enzyme E2C |
| 203213_at | CDK1 | Cyclin-dependent kinase 1 |
| 203214_x_at | CDK1 | Cyclin-dependent kinase 1 |
| 203362_s_at | MAD2L1 | MAD2 mitotic arrest deficient-like 1 (yeast) |
| 203554_x_at | PTTG1 | Pituitary tumor-transforming 1 |
| 203755_at | BUB1B | Budding uninhibited by benzimidazoles 1 homolog beta (yeast) |
| 203764_at | DLGAP5 | Discs, large (Drosophila) homolog-associated protein 5 |
| 204026_s_at | ZWINT | ZW10 interactor |
| 204033_at | TRIP13 | Thyroid hormone receptor interactor 13 |
| 204092_s_at | AURKA | Aurora kinase A |
| 208079_s_at | AURKA | Aurora kinase A |
| 204162_at | NDC80 | NDC80 homolog, kinetochore complex component (S. cerevisiae) |
| 204170_s_at | CKS2 | CDC28 protein kinase regulatory subunit 2 |
| 204444_at | KIF11 | Kinesin family member 11 |
| 204641_at | NEK2 | NIMA (never in mitosis gene a)-related kinase 2 |
| 204822_at | TTK | TTK protein kinase |
| 204825_at | MELK | Maternal embryonic leucine zipper kinase |
| 204962_s_at | CENPA | Centromere protein A |
| 205034_at | CCNE2 | cyclin E2 |
| 205046_at | CENPE | Centromere protein E, 312kDa |
| 206102_at | GINS1 | GINS complex subunit 1 (Psf1 homolog) |
| 206364_at | KIF14 | Kinesin family member 14 |
| 207828_s_at | CENPF | Centromere protein F, 350/400kDa (mitosin) |
| 209172_s_at | CENPF | Centromere protein F, 350/400kDa (mitosin) |
| 209408_at | KIF2C | Kinesin family member 2C |
| 209642_at | BUB1 | Budding uninhibited by benzimidazoles 1 homolog (yeast) |
| 209714_s_at | CDKN3 | Cyclin-dependent kinase inhibitor 3 |
| 209773_s_at | RRM2 | Ribonucleotide reductase M2 |
| 210052_s_at | TPX2 | TPX2, microtubule-associated, homolog (Xenopus laevis) |
| 210559_s_at | CDK1 | Cyclin-dependent kinase 1 |
| 212022_s_at | MKI67 | Antigen identified by monoclonal antibody Ki-67 |
| 212949_at | NCAPH | Non-SMC condensin I complex, subunit H |
| 213226_at | CCNA2 | Cyclin A2 |
| 214710_s_at | CCNB1 | Cyclin B1 |
| 218009_s_at | PRC1 | Protein regulator of cytokinesis 1 |
| 218039_at | NUSAP1 | Nucleolar and spindle associated protein 1 |
| 218355_at | KIF4A | Kinesin family member 4A |
| 218542_at | CEP55 | Centrosomal protein 55kDa |
| 218585_s_at | DTL | Denticleless homolog (Drosophila) |
| 218662_s_at | NCAPG | Non-SMC condensin I complex, subunit G |
| 218663_at | NCAPG | Non-SMC condensin I complex, subunit G |
| 218726_at | HJURP | Holliday junction recognition protein |
| 218755_at | KIF20A | Kinesin family member 20A |
| 218883_s_at | MLF1IP | MLF1 interacting protein |
| 219148_at | PBK | PDZ binding kinase |
| 219306_at | KIF15 | Kinesin family member 15 |
| 219918_s_at | ASPM | asp (abnormal spindle) homolog, microcephaly associated (Drosophila) |
| 220651_s_at | MCM10 | Minichromosome maintenance complex component 10 |
| 221436_s_at | CDCA3 | Cell division cycle associated 3 |
| 221520_s_at | CDCA8 | Cell division cycle associated 8 |
| 222039_at | KIF18B | Kinesin family member 18B |
| 222077_s_at | RACGAP1 | Rac GTPase activating protein 1 |

**Table S2. Mouse adrenal tumours analysed by RNAseq**

| Animal ID | Sex | Genotype |
|---|---|---|
| 184208-Turq182 | Female | ABC |
| 183159-B200 | Female | ABC |
| B505 | Female | ABC |
| 207386 | Female | ABC |
| 153514 | Female | ABC; Hoxb9 |
| 153516 | Female | ABC; Hoxb9 |
| 189961-B532 | Female | ABC; Hoxb9 |
| 191284 | Female | ABC; Hoxb9 |
| 166836 | Male | ABC |
| 166838 | Male | ABC |
| 182098-Turq199 | Male | ABC |
| 169229 | Male | ABC; Hoxb9 |
| 182083-Turq191 | Male | ABC; Hoxb9 |
| 182086-Turq194 | Male | ABC; Hoxb9 |

# Table S3. Genes differentially expressed in ABC_Hoxb9 Female vs ABC Female

| Gene | ENSEMBL_Gene_ID | baseMean | log2FoldChange | lfcSE | stat | pvalue | padj | 184208_Turq1 | 183159_B200 | B505_Normali | 207386_Norm | 153514_Norm | 153516_Norm | 189961_B532 | 191284_Norma |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Slc27a2 | ENSMUSG00000027359 | 21.9051591 | 4.191942937 | 1.148305906 | 3.650545482 | 0.000261684 | 0.085256787 | 0 | 1 | 2 | 5 | 14 | 20 | 130 | 2 |
| Prg4 | ENSMUSG00000006014 | 10.56221999 | 3.687436402 | 1.012912294 | 3.640430098 | 0.000272183 | 0.085256787 | 2 | 1 | 1 | 2 | 8 | 2 | 30 | 39 |
| Apol7c | ENSMUSG00000044309 | 6.58620907 | 3.28113107 | 0.876188625 | 3.744777068 | 0.000180554 | 0.064025139 | 2 | 0 | 1 | 2 | 10 | 20 | 6 | 11 |
| Trim12a | ENSMUSG00000066258 | 95.97699655 | 3.243870079 | 0.734084608 | 4.418932152 | 9.91898E-06 | 0.010965722 | 22 | 14 | 28 | 10 | 345 | 45 | 276 | 29 |
| Ptprq | ENSMUSG00000035916 | 20.79260951 | 3.047391271 | 0.764611306 | 3.98554304 | 6.7326E-05 | 0.032737491 | 1 | 12 | 2 | 4 | 25 | 47 | 13 | 63 |
| Foxl2 | ENSMUSG00000050397 | 18.98663136 | 3.015393916 | 0.803884277 | 3.751029847 | 0.00017611 | 0.064025139 | 1 | 8 | 0 | 8 | 32 | 55 | 15 | 33 |
| Tchh | ENSMUSG00000052415 | 31.44739379 | 2.76969431 | 0.702768844 | 3.941117105 | 8.1103E-05 | 0.035360644 | 4 | 15 | 6 | 8 | 110 | 15 | 71 | 23 |
| Cfap54 | ENSMUSG00000020014 | 944.4184571 | 2.611899487 | 0.462859836 | 5.642959889 | 1.67151E-08 | 5.23574E-05 | 220 | 226 | 389 | 226 | 2849 | 1038 | 2004 | 602 |
| Nr6a1 | ENSMUSG00000063972 | 592.0603564 | 2.59182928 | 0.414526232 | 6.252509685 | 4.03909E-10 | 2.53035E-06 | 207 | 228 | 151 | 89 | 1053 | 1380 | 432 | 1196 |
| Bdnf | ENSMUSG00000048482 | 15.68834789 | 2.568158658 | 0.627518535 | 4.092562235 | 4.26633E-05 | 0.025657524 | 2 | 5 | 6 | 5 | 35 | 25 | 9 | 39 |
| Egfem1 | ENSMUSG00000063600 | 12.77949348 | 2.458183988 | 0.532236783 | 4.618590947 | 3.86355E-06 | 0.005585499 | 6 | 3 | 4 | 3 | 18 | 28 | 17 | 24 |
| Dnase1l3 | ENSMUSG00000025279 | 36.32121221 | 1.873319968 | 0.314700492 | 5.952707473 | 2.63742E-09 | 1.23919E-05 | 17 | 16 | 14 | 16 | 66 | 65 | 50 | 47 |
| Pex5l | ENSMUSG00000027674 | 141.7561673 | 1.788716732 | 0.412409503 | 4.337234523 | 1.44287E-05 | 0.012912968 | 69 | 31 | 51 | 102 | 233 | 185 | 134 | 328 |
| Slc6a5 | ENSMUSG00000039728 | 184.6835041 | 1.689560986 | 0.358915349 | 4.707408006 | 2.50886E-06 | 0.00471516 | 78 | 79 | 122 | 71 | 193 | 477 | 240 | 219 |
| Cd3e | ENSMUSG00000032093 | 12.68089399 | 1.679113556 | 0.463407924 | 3.62340277 | 0.000290753 | 0.089580378 | 7 | 7 | 5 | 5 | 16 | 23 | 20 | 18 |
| Dsp | ENSMUSG00000054889 | 1085.754275 | 1.635048749 | 0.254713327 | 6.419172365 | 1.37017E-10 | 2.4443E-06 | 627 | 527 | 439 | 523 | 1190 | 2168 | 1323 | 1890 |
| Serpina3f | ENSMUSG00000066363 | 16.46395617 | 1.632374878 | 0.430623559 | 3.790723578 | 0.000150209 | 0.060064445 | 6 | 9 | 9 | 7 | 20 | 23 | 23 | 34 |
| Stard9 | ENSMUSG00000033705 | 536.9815802 | 1.469829889 | 0.316412575 | 4.64529543 | 3.3959E-06 | 0.005385956 | 454 | 211 | 268 | 205 | 808 | 1024 | 689 | 636 |
| Arhgap20 | ENSMUSG00000053199 | 79.52185178 | 1.392139913 | 0.317315969 | 4.387235592 | 1.148E-05 | 0.011647653 | 37 | 30 | 64 | 43 | 114 | 145 | 84 | 119 |
| Zbtb16 | ENSMUSG00000066687 | 112.1571643 | 1.349645638 | 0.283976259 | 4.75267067 | 2.00747E-06 | 0.004192047 | 72 | 60 | 73 | 48 | 158 | 225 | 140 | 123 |
| Nlrc5 | ENSMUSG00000074151 | 82.73442601 | 1.280321807 | 0.29981152 | 4.270422319 | 1.95103E-05 | 0.015942474 | 75 | 31 | 41 | 45 | 110 | 112 | 133 | 115 |
| Pdgfra | ENSMUSG00000029231 | 859.0140792 | 1.274687466 | 0.304411773 | 4.187379002 | 2.82194E-05 | 0.019642819 | 526 | 705 | 310 | 470 | 1159 | 1286 | 856 | 1559 |
| Atp10d | ENSMUSG00000046808 | 80.59708051 | 1.258358531 | 0.344924793 | 3.648211314 | 0.000264072 | 0.085256787 | 67 | 27 | 32 | 63 | 129 | 101 | 99 | 126 |
| Adam12 | ENSMUSG00000054555 | 58.85155406 | 1.193994304 | 0.331918089 | 3.597255897 | 0.000321592 | 0.094437519 | 29 | 38 | 28 | 49 | 54 | 79 | 112 | 83 |
| Cxcl9 | ENSMUSG00000029417 | 56.13421237 | 1.183284704 | 0.314522196 | 3.762165975 | 0.000168448 | 0.064025139 | 29 | 57 | 26 | 27 | 74 | 71 | 82 | 83 |
| Serpina3g | ENSMUSG00000041481 | 85.85680109 | 1.174701512 | 0.283482245 | 4.143827462 | 3.41557E-05 | 0.022251222 | 38 | 47 | 49 | 77 | 118 | 140 | 99 | 119 |
| Gm4070 | ENSMUSG00000078606 | 182.1933688 | 1.142427675 | 0.249652429 | 4.576072746 | 4.73786E-06 | 0.006360237 | 157 | 94 | 109 | 93 | 299 | 215 | 263 | 228 |
| Cers6 | ENSMUSG00000027035 | 80.36201981 | 1.109977474 | 0.300500927 | 3.693757237 | 0.000220965 | 0.076903922 | 53 | 56 | 55 | 40 | 85 | 114 | 82 | 158 |
| Filip1 | ENSMUSG00000034898 | 1076.60538 | 1.10708143 | 0.254310664 | 4.353263895 | 1.34126E-05 | 0.012603776 | 538 | 668 | 764 | 760 | 1005 | 1363 | 1548 | 1966 |
| Gvin1 | ENSMUSG00000045868 | 187.160909 | 1.069610302 | 0.262522575 | 4.074355516 | 4.61419E-05 | 0.025657524 | 166 | 108 | 103 | 106 | 333 | 211 | 251 | 220 |
| Nr5a1 | ENSMUSG00000026751 | 23101.31731 | 1.046153971 | 0.257144039 | 4.06835717 | 4.73458E-05 | 0.025657524 | 12249 | 15538 | 14523 | 17988 | 33572 | 39728 | 19701 | 31512 |
| Pgm2l1 | ENSMUSG00000030729 | 128.3059677 | 1.044079497 | 0.264608681 | 3.94574922 | 7.95508E-05 | 0.035360644 | 86 | 75 | 108 | 66 | 148 | 192 | 215 | 136 |
| Itih5 | ENSMUSG00000025780 | 1828.633184 | 1.034868495 | 0.25403474 | 4.073728243 | 4.62665E-05 | 0.025657524 | 1200 | 1353 | 1399 | 846 | 2310 | 2314 | 1905 | 3301 |
| Tenm4 | ENSMUSG00000048078 | 1271.834504 | 1.017366294 | 0.26614314 | 3.822628288 | 0.000132037 | 0.053945621 | 1134 | 964 | 690 | 577 | 2102 | 1482 | 1684 | 1542 |
| Cdon | ENSMUSG00000038119 | 189.7879037 | 0.915018321 | 0.19708776 | 4.642694802 | 3.43894E-06 | 0.005385956 | 125 | 106 | 142 | 152 | 236 | 221 | 251 | 285 |
| Vcam1 | ENSMUSG00000027962 | 686.1843965 | 0.901959428 | 0.235112037 | 3.836296263 | 0.000124904 | 0.052165345 | 458 | 374 | 509 | 572 | 876 | 1183 | 709 | 808 |
| Flnc | ENSMUSG00000068699 | 166.2070425 | 0.901711554 | 0.240700361 | 3.746199432 | 0.000179534 | 0.064025139 | 138 | 106 | 97 | 123 | 193 | 174 | 216 | 283 |
| Tnfrsf21 | ENSMUSG00000023915 | 129.3081305 | 0.898144543 | 0.23955356 | 3.749243145 | 0.000177369 | 0.064025139 | 106 | 68 | 75 | 112 | 193 | 164 | 148 | 169 |
| Tmem181b-ps | ENSMUSG00000096780 | 285.7006728 | 0.895979863 | 0.211719068 | 4.231928054 | 2.31697E-05 | 0.016748095 | 179 | 190 | 246 | 183 | 385 | 442 | 294 | 366 |
| Dock8 | ENSMUSG00000052085 | 264.9339641 | 0.831284386 | 0.209374408 | 3.970324719 | 7.17747E-05 | 0.033723363 | 244 | 168 | 157 | 193 | 348 | 309 | 387 | 314 |
| Tgfbr3 | ENSMUSG00000029287 | 3527.69397 | 0.822988846 | 0.202464791 | 4.064849213 | 4.80635E-05 | 0.025657524 | 2766 | 1822 | 3052 | 2550 | 4028 | 4489 | 4715 | 4800 |
| Kank1 | ENSMUSG00000032702 | 394.654745 | 0.797933226 | 0.184619767 | 4.322035714 | 1.54596E-05 | 0.013206728 | 250 | 296 | 259 | 349 | 531 | 488 | 433 | 551 |
| Sfxn5 | ENSMUSG00000033720 | 228.116906 | 0.777478386 | 0.213565554 | 3.640467156 | 0.000272144 | 0.085256787 | 191 | 125 | 188 | 167 | 245 | 284 | 340 | 286 |
| Msr1 | ENSMUSG00000025044 | 78.52088009 | 0.743620497 | 0.207709181 | 3.580104121 | 0.000343457 | 0.097860037 | 63 | 54 | 64 | 53 | 108 | 97 | 95 | 94 |
| Kif21a | ENSMUSG00000022629 | 606.8049681 | 0.656018112 | 0.164687737 | 3.983405962 | 6.79346E-05 | 0.032737491 | 468 | 565 | 440 | 412 | 741 | 751 | 805 | 671 |
| Klhl12 | ENSMUSG00000026455 | 805.6268982 | 0.597117643 | 0.120380972 | 4.960232762 | 7.04088E-07 | 0.001654078 | 674 | 601 | 644 | 646 | 988 | 1029 | 906 | 957 |
| Cyyr1 | ENSMUSG00000041134 | 583.3518596 | 0.587586018 | 0.16059243 | 3.658864967 | 0.000253335 | 0.085020959 | 520 | 384 | 505 | 454 | 675 | 756 | 659 | 713 |
| Thnsl2 | ENSMUSG00000054847 | 490.4863057 | -0.775627118 | 0.206034003 | -3.764558795 | 0.000166843 | 0.064025139 | 495 | 785 | 635 | 562 | 415 | 329 | 372 | 330 |
| 1700040L02Rik | ENSMUSG00000019945 | 141.0419481 | -0.895256479 | 0.204316839 | -4.38170677 | 1.17753E-05 | 0.011647653 | 185 | 194 | 196 | 160 | 82 | 99 | 92 | 121 |
| Insc | ENSMUSG00000048782 | 124.1928239 | -1.024209528 | 0.28460116 | -3.598748818 | 0.000319752 | 0.094437519 | 198 | 115 | 211 | 141 | 89 | 60 | 94 | 87 |
| Skap1 | ENSMUSG00000057058 | 529.0237922 | -1.045117196 | 0.252283536 | -4.142629408 | 3.43347E-05 | 0.022251222 | 660 | 931 | 574 | 686 | 455 | 320 | 348 | 258 |
| Sbspon | ENSMUSG00000032719 | 899.2799666 | -1.079379755 | 0.254205857 | -4.24608531 | 2.17538E-05 | 0.016353624 | 1544 | 1070 | 1202 | 1066 | 568 | 495 | 807 | 441 |
| Gstm7 | ENSMUSG00000004035 | 1138.044699 | -1.170350479 | 0.326918171 | -3.579949305 | 0.000343661 | 0.097860037 | 964 | 2486 | 1078 | 1776 | 767 | 630 | 765 | 639 |
| RP23-82I13.8 | ENSMUSG00000107432 | 69.66141325 | -1.231228805 | 0.275430358 | -4.470200064 | 7.81465E-06 | 0.009179279 | 68 | 114 | 94 | 115 | 42 | 35 | 49 | 40 |
| Tspan11 | ENSMUSG00000030351 | 844.6849803 | -1.411743131 | 0.315773244 | -4.470749682 | 7.79459E-06 | 0.009179279 | 1402 | 1757 | 892 | 862 | 353 | 447 | 406 | 639 |
| Hist1h2ad | ENSMUSG00000071478 | 43.66655185 | -1.605926072 | 0.407224753 | -3.943586587 | 8.0272E-05 | 0.035360644 | 40 | 107 | 41 | 75 | 24 | 19 | 23 | 20 |
| Lsr | ENSMUSG00000001247 | 403.2309522 | -1.696471991 | 0.268392687 | -6.320857737 | 2.60115E-10 | 2.4443E-06 | 890 | 633 | 502 | 441 | 206 | 209 | 181 | 165 |
| Rimklb | ENSMUSG00000040649 | 60.58136567 | -1.829022286 | 0.447456305 | -4.08759762 | 4.35859E-05 | 0.025657524 | 139 | 64 | 109 | 66 | 41 | 12 | 34 | 20 |
| Ly6d | ENSMUSG00000034634 | 5414.062031 | -2.352429977 | 0.553969072 | -4.246500561 | 2.17135E-05 | 0.016353624 | 3055 | 13550 | 12918 | 6696 | 1161 | 1244 | 3737 | 951 |
| 4930481A15Rik | ENSMUSG00000086938 | 150.0490934 | -2.377103166 | 0.58829502 | -4.040665117 | 5.32998E-05 | 0.027073429 | 89 | 618 | 163 | 136 | 37 | 31 | 58 | 68 |
| Gulo | ENSMUSG00000034450 | 45.19409874 | -2.455849138 | 0.482481479 | -5.090038159 | 3.57991E-07 | 0.000961156 | 76 | 121 | 74 | 35 | 18 | 21 | 10 | 8 |
| Guca1a | ENSMUSG00000032982 | 124.8593841 | -2.493240255 | 0.678372319 | -3.675327227 | 0.000237545 | 0.081171201 | 49 | 583 | 78 | 138 | 36 | 27 | 49 | 39 |
| Ly6k | ENSMUSG00000044678 | 438.3079278 | -2.58237902 | 0.451272697 | -5.722435766 | 1.05008E-08 | 3.94702E-05 | 976 | 294 | 551 | 1182 | 175 | 71 | 121 | 135 |
| Mapk15 | ENSMUSG00000083704 | 10.48941833 | -2.59584537 | 0.659481693 | -3.936190188 | 8.27854E-05 | 0.035360644 | 13 | 28 | 11 | 20 | 5 | 3 | 3 | 1 |
| Gm26917 | ENSMUSG00000097971 | 3932.585527 | -2.786087543 | 0.686288254 | -4.059646261 | 4.91471E-05 | 0.025657524 | 2252 | 18573 | 1140 | 5512 | 1056 | 804 | 811 | 1312 |
| Ptprv | ENSMUSG00000097993 | 13.11079293 | -4.36468208 | 1.211114255 | -3.603856582 | 0.00031353 | 0.094437519 | 60 | 19 | 21 | 0 | 0 | 1 | 2 | 2 |

# Table S4. Genes differentially expressed ABC_Hoxb9 Male vs ABC Male

| Gene | ENSEMBL_Gene_ID | baseMean | log2FoldChange | lfcSE | stat | pvalue | padj | Read count | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 166836_Norma | 166838_Norma | 182098_Turq19 | 169229_Norma | 182083_Turq19 | 182086_Turq19 |
| Nr6a1 | ENSMUSG00000069972 | 811.1701312 | 3.641534655 | 0.245763457 | 14.81723402 | 1.13357E-49 | 2.06933E-45 | 162 | 107 | 92 | 1392 | 1573 | 1541 |
| Dnah10 | ENSMUSG00000038011 | 152.0821039 | 6.82144082 | 0.624115351 | 10.92977573 | 8.30534E-28 | 7.5807E-24 | 1 | 0 | 7 | 345 | 354 | 205 |
| Rbm24 | ENSMUSG00000038132 | 5273.455917 | 1.773547782 | 0.167771116 | 10.57123433 | 4.05127E-26 | 2.4652E-22 | 2269 | 2637 | 2253 | 9027 | 8255 | 7198 |
| Nr5a1 | ENSMUSG00000026751 | 27438.90468 | 1.928280233 | 0.192796792 | 10.00161993 | 1.49924E-23 | 6.84217E-20 | 9584 | 11915 | 12757 | 48019 | 37251 | 45108 |
| Mgst2 | ENSMUSG00000074604 | 105.3306037 | 4.490598127 | 0.513797543 | 8.740014792 | 2.3308E-18 | 8.50975E-15 | 8 | 12 | 7 | 322 | 102 | 181 |
| Fos | ENSMUSG00000021250 | 384.6775037 | 3.007200438 | 0.350950691 | 8.568726353 | 1.04636E-17 | 3.21255E-14 | 86 | 87 | 83 | 482 | 495 | 1075 |
| Pagr5 | ENSMUSG00000032278 | 185.3234288 | -2.309866975 | 0.270957864 | -8.524819832 | 1.53048E-17 | 3.99127E-14 | 269 | 340 | 317 | 58 | 47 | 82 |
| Trib3 | ENSMUSG00000032715 | 170.4274959 | -3.619400083 | 0.430849623 | -8.400610998 | 4.44161E-17 | 1.01352E-13 | 379 | 424 | 143 | 22 | 27 | 28 |
| Frzb | ENSMUSG00000027004 | 836.0153116 | 2.038833721 | 0.251602439 | 8.103394107 | 5.34467E-16 | 1.08408E-12 | 440 | 277 | 265 | 1445 | 1175 | 1415 |
| Agtr1b | ENSMUSG00000054988 | 1536.290434 | 1.49896675 | 0.191315668 | 7.835044379 | 4.68677E-15 | 8.5557E-12 | 814 | 904 | 691 | 2611 | 2128 | 2070 |
| Kcnj2 | ENSMUSG00000041695 | 487.6945518 | 1.447861269 | 0.190014778 | 7.619729798 | 2.54207E-14 | 4.21869E-11 | 239 | 279 | 267 | 692 | 629 | 820 |
| Fam19a4 | ENSMUSG00000046500 | 150.052925 | 2.16280513 | 0.293579078 | 7.367027452 | 1.74475E-13 | 2.65311E-10 | 43 | 75 | 46 | 280 | 205 | 251 |
| Cfap69 | ENSMUSG00000040473 | 339.1089167 | 1.286672976 | 0.174905264 | 7.356399375 | 1.88937E-13 | 2.65311E-10 | 196 | 197 | 199 | 455 | 454 | 533 |
| Atp1b3 | ENSMUSG00000041329 | 4032.080709 | -1.153090881 | 0.157907027 | -7.302340516 | 2.82804E-13 | 3.68757E-10 | 5416 | 5324 | 5949 | 2329 | 2354 | 2822 |
| Fosb | ENSMUSG00000003545 | 159.7474241 | 2.972023973 | 0.413977847 | 7.179186021 | 7.01277E-13 | 8.15558E-10 | 35 | 58 | 15 | 335 | 278 | 237 |
| Sbspon | ENSMUSG00000032719 | 1233.201099 | -1.631661149 | 0.227359428 | -7.176571316 | 7.14814E-13 | 8.15558E-10 | 1867 | 1503 | 2224 | 690 | 619 | 496 |
| Mthfd1l | ENSMUSG00000040675 | 394.8709454 | 1.756469142 | 0.246346008 | 7.130089728 | 1.00304E-12 | 1.07708E-09 | 137 | 230 | 174 | 692 | 552 | 584 |
| Pgm5 | ENSMUSG00000041731 | 2289.168586 | -2.038119805 | 0.29106696 | -7.002236892 | 2.51908E-12 | 2.55476E-09 | 4090 | 4694 | 2262 | 832 | 839 | 1018 |
| Dusp5 | ENSMUSG00000033765 | 147.9975236 | 1.437935789 | 0.208199793 | 6.906518816 | 4.96691E-12 | 4.77216E-09 | 75 | 86 | 79 | 229 | 207 | 213 |
| Steap1 | ENSMUSG00000016652 | 4208.069022 | 1.483700474 | 0.221663401 | 6.69348422 | 2.17919E-11 | 1.98905E-08 | 1996 | 2781 | 1872 | 6132 | 5417 | 7049 |
| Hpcal4 | ENSMUSG00000046093 | 334.9135465 | 2.224448287 | 0.333777622 | 6.664462024 | 2.65637E-11 | 2.30914E-08 | 126 | 161 | 68 | 565 | 653 | 437 |
| Wnt2 | ENSMUSG00000010797 | 73.84562318 | -3.588946637 | 0.546114877 | -6.571379658 | 4.97174E-11 | 4.03224E-08 | 179 | 169 | 62 | 20 | 7 | 8 |
| Fam169a | ENSMUSG00000041817 | 25.71259866 | 3.85457296 | 0.586821405 | 6.568562307 | 5.08034E-11 | 4.03224E-08 | 4 | 3 | 3 | 46 | 58 | 41 |
| Klhdc7a | ENSMUSG00000078234 | 691.3638177 | -2.274411209 | 0.347327557 | -6.548317766 | 5.81888E-11 | 4.42599E-08 | 1369 | 1374 | 695 | 267 | 290 | 153 |
| Slit1 | ENSMUSG00000025020 | 676.9815123 | -1.647007297 | 0.253274036 | -6.502866714 | 7.88036E-11 | 5.75424E-08 | 1207 | 1047 | 825 | 421 | 278 | 284 |
| Egr1 | ENSMUSG00000038418 | 1195.432914 | 1.60613355 | 0.251572311 | 6.384381275 | 1.72092E-10 | 1.20828E-07 | 590 | 555 | 629 | 1535 | 1426 | 2438 |
| Cpb1 | ENSMUSG00000011463 | 1154.039819 | 1.114970515 | 0.175539376 | 6.351683269 | 2.12971E-10 | 1.43992E-07 | 816 | 727 | 643 | 1749 | 1516 | 1473 |
| 1810041L15Rik | ENSMUSG00000062760 | 73.96064017 | -3.352228182 | 0.528672156 | -6.340844972 | 2.28508E-10 | 1.48979E-07 | 245 | 85 | 75 | 13 | 14 | 13 |
| Cela1 | ENSMUSG00000023031 | 300.3591209 | 1.320252192 | 0.208989162 | 6.317323724 | 2.66132E-10 | 1.67525E-07 | 172 | 141 | 203 | 397 | 447 | 443 |
| Dkk2 | ENSMUSG00000028031 | 269.3411136 | -1.206639835 | 0.191678566 | -6.295121349 | 3.07159E-10 | 1.86907E-07 | 363 | 362 | 403 | 145 | 159 | 184 |
| Lin7a | ENSMUSG00000019906 | 1025.814724 | 1.803173034 | 0.287815956 | 6.26502108 | 3.72775E-10 | 2.19573E-07 | 488 | 488 | 395 | 2146 | 1596 | 1042 |
| Nt5e | ENSMUSG00000032420 | 80.81971649 | -1.929206081 | 0.308747557 | -6.248490183 | 4.14439E-10 | 2.36425E-07 | 159 | 115 | 110 | 32 | 41 | 28 |
| Tspan7 | ENSMUSG00000058254 | 1035.205687 | -1.107060862 | 0.178791325 | -6.191915966 | 5.94372E-10 | 3.28796E-07 | 1448 | 1259 | 1536 | 649 | 583 | 738 |
| Plin1 | ENSMUSG00000030546 | 1388.832783 | -2.272761886 | 0.373505401 | -6.08495053 | 1.16527E-09 | 6.25649E-07 | 3482 | 2143 | 1279 | 343 | 589 | 497 |
| Csgp5 | ENSMUSG00000032482 | 1383.626308 | 1.15906072 | 0.192840094 | 6.010475815 | 1.8498E-09 | 9.64801E-07 | 896 | 792 | 879 | 1540 | 2111 | 2083 |
| Mid1 | ENSMUSG00000035299 | 799.443562 | 1.097425918 | 0.184206721 | 5.957578061 | 2.56003E-09 | 1.29815E-06 | 446 | 567 | 515 | 1228 | 1001 | 1040 |
| Tnfaip8 | ENSMUSG00000062210 | 376.9331839 | 1.50346739 | 0.254791142 | 5.900783586 | 3.61779E-09 | 1.78494E-06 | 165 | 209 | 216 | 717 | 442 | 513 |
| Exoc3l4 | ENSMUSG00000021280 | 154.2430421 | -1.267063492 | 0.217953685 | -5.813452934 | 6.11972E-09 | 2.93988E-06 | 224 | 240 | 190 | 85 | 90 | 96 |
| Gdf15 | ENSMUSG00000038508 | 69.08074119 | -2.443812257 | 0.420806397 | -5.807450355 | 6.34314E-09 | 2.96908E-06 | 129 | 159 | 63 | 23 | 23 | 18 |
| Slc29a4 | ENSMUSG00000050822 | 198.1680778 | -1.206592712 | 0.208074283 | -5.798855554 | 6.6769E-09 | 3.04717E-06 | 291 | 239 | 299 | 109 | 125 | 125 |
| Cox6a2 | ENSMUSG00000045573 | 38.77786332 | -3.341112475 | 0.576854298 | -5.791952121 | 6.9573E-09 | 3.09769E-06 | 69 | 107 | 35 | 10 | 7 | 4 |
| Penk | ENSMUSG00000045573 | 135.0352103 | -1.507702023 | 0.261427113 | -5.767198391 | 8.06002E-09 | 3.50323E-06 | 229 | 151 | 220 | 72 | 66 | 72 |
| Map6d1 | ENSMUSG00000041205 | 49.82055941 | 1.967603981 | 0.342124283 | 5.751138049 | 8.8644E-09 | 3.76328E-06 | 17 | 23 | 21 | 89 | 85 | 64 |
| Anxa5 | ENSMUSG00000027712 | 9137.620151 | -1.243399416 | 0.216753164 | -5.736476423 | 9.66665E-09 | 4.01056E-06 | 12423 | 11209 | 14913 | 4424 | 6547 | 5309 |
| Kcnk2 | ENSMUSG00000037624 | 264.8281644 | -1.465054446 | 0.255653381 | -5.730628084 | 1.00059E-08 | 4.09008E-06 | 418 | 422 | 327 | 179 | 108 | 136 |
| Fstl4 | ENSMUSG00000036264 | 24.65736113 | 2.949956187 | 0.519652097 | 5.676790691 | 1.37245E-08 | 5.44653E-06 | 6 | 5 | 6 | 34 | 56 | 41 |
| Cpa3 | ENSMUSG00000001865 | 57.95538103 | 1.815944878 | 0.32448714 | 5.596353913 | 2.18907E-08 | 8.50243E-06 | 27 | 18 | 32 | 87 | 86 | 97 |
| Chl1 | ENSMUSG00000033077 | 281.3478027 | 1.206816812 | 0.216101554 | 5.584489287 | 2.34388E-08 | 8.91407E-06 | 190 | 186 | 134 | 379 | 371 | 428 |
| Prkg2 | ENSMUSG00000029334 | 30.74707979 | -2.563170366 | 0.460640122 | -5.564366285 | 2.63107E-08 | 9.82007E-06 | 66 | 39 | 52 | 8 | 12 | 7 |
| Ap1s2 | ENSMUSG00000031367 | 695.5804607 | 0.92856082 | 0.168724199 | 5.50342407 | 3.72485E-08 | 1.35994E-05 | 463 | 445 | 529 | 967 | 824 | 945 |
| Ly6d | ENSMUSG00000034634 | 5887.589686 | -1.644395494 | 0.298992026 | -5.499797152 | 3.80228E-08 | 1.36099E-05 | 8995 | 9206 | 8563 | 2126 | 2159 | 4276 |
| Bcam | ENSMUSG00000002980 | 3901.500115 | -0.651860589 | 0.119143108 | -5.47124045 | 4.46896E-08 | 1.56886E-05 | 4690 | 4842 | 4772 | 3093 | 3009 | 3002 |
| Ckap2 | ENSMUSG00000037725 | 159.104734 | 1.431784668 | 0.262800805 | 5.448174584 | 5.08994E-08 | 1.7528E-05 | 98 | 92 | 69 | 225 | 191 | 281 |
| Apobec3 | ENSMUSG00000009585 | 277.3259051 | 0.969816691 | 0.178474497 | 5.433923083 | 5.51284E-08 | 1.86364E-05 | 196 | 193 | 173 | 346 | 395 | 361 |
| Ncam1 | ENSMUSG00000039542 | 236.6945035 | -1.167093931 | 0.217964939 | -5.354503045 | 8.57919E-08 | 2.84751E-05 | 320 | 283 | 380 | 137 | 135 | 166 |
| Col5a1 | ENSMUSG00000026837 | 565.3864131 | -1.243681773 | 0.232980216 | -5.33814328 | 9.39032E-08 | 3.06108E-05 | 951 | 830 | 604 | 337 | 373 | 297 |
| Rftn2 | ENSMUSG00000025978 | 1918.492163 | -0.809012404 | 0.152260883 | -5.313330561 | 1.0764E-07 | 3.4473E-05 | 2683 | 2179 | 2466 | 1405 | 1413 | 1365 |
| P4ha3 | ENSMUSG00000051048 | 202.6466646 | 1.545987005 | 0.294881699 | 5.242736368 | 1.58213E-07 | 4.9796E-05 | 83 | 120 | 107 | 406 | 231 | 269 |
| Atf5 | ENSMUSG00000038539 | 1406.063858 | -1.33372337 | 0.259934149 | -5.13100481 | 2.882E-07 | 8.91709E-05 | 2004 | 2649 | 1386 | 765 | 828 | 803 |
| Pid1 | ENSMUSG00000045658 | 1367.769562 | -1.05164338 | 0.205231538 | -5.124180173 | 2.98835E-07 | 9.09206E-05 | 2179 | 1532 | 1825 | 976 | 921 | 773 |
| Htra3 | ENSMUSG00000029096 | 189.7669777 | -1.337749516 | 0.261306198 | -5.119471051 | 3.06394E-07 | 9.16921E-05 | 303 | 258 | 255 | 78 | 136 | 109 |
| Chgb | ENSMUSG00000063362 | 8095.581355 | -1.188705675 | 0.234087049 | -5.078049722 | 3.81329E-07 | 0.000112277 | 14303 | 8586 | 10873 | 4706 | 4533 | 5573 |
| Steap3 | ENSMUSG00000026389 | 310.1783864 | 1.015680981 | 0.200891592 | 5.055866053 | 4.28442E-07 | 0.000120286 | 203 | 239 | 173 | 428 | 432 | 385 |
| Hdc | ENSMUSG00000027360 | 110.7635733 | -2.112889946 | 0.41815351 | -5.05290496 | 4.3514E-07 | 0.000120286 | 271 | 134 | 135 | 26 | 60 | 39 |
| Scg2 | ENSMUSG00000050711 | 2584.996508 | -1.286987469 | 0.254717831 | -5.052600602 | 4.35835E-07 | 0.000120286 | 4700 | 2642 | 3659 | 1359 | 1404 | 1745 |
| Per3 | ENSMUSG00000028957 | 572.1838259 | 1.434590944 | 0.283999042 | 5.051393596 | 4.38598E-07 | 0.000120286 | 226 | 420 | 281 | 939 | 905 | 663 |
| Dlk1 | ENSMUSG00000040856 | 1526.188676 | -1.419475048 | 0.281175867 | -5.048353056 | 4.45635E-07 | 0.000120286 | 2848 | 1601 | 2217 | 669 | 771 | 1052 |
| Npas2 | ENSMUSG00000026077 | 128.286461 | -3.333086666 | 0.660728031 | -5.044566764 | 4.5455E-07 | 0.000120286 | 492 | 131 | 78 | 11 | 20 | 38 |
| Tubb2a | ENSMUSG00000058672 | 1237.174186 | 1.034832624 | 0.205139867 | 5.044522251 | 4.54656E-07 | 0.000120286 | 747 | 904 | 783 | 1760 | 1326 | 1902 |
| Per2 | ENSMUSG00000055866 | 1319.724987 | 1.724530894 | 0.342387983 | 5.03677401 | 4.73443E-07 | 0.000123467 | 383 | 933 | 523 | 2512 | 1721 | 1847 |
| Junb | ENSMUSG00000052837 | 1537.064516 | 1.639579174 | 0.327288633 | 5.009581782 | 5.45484E-07 | 0.000120286 | 463 | 674 | 1104 | 2305 | 1938 | 2739 |
| 3110002H16Rik | ENSMUSG00000024410 | 851.2247873 | 0.730811755 | 0.147118391 | 4.967507802 | 6.78188E-07 | 0.000171949 | 649 | 684 | 587 | 1065 | 1072 | 1050 |
| RimkIb | ENSMUSG00000040649 | 25.55652204 | -3.569394691 | 0.721252118 | -4.948886253 | 7.46393E-07 | 0.000186352 | 40 | 18 | 84 | 5 | 3 | 4 |
| Syp | ENSMUSG00000031144 | 299.0434991 | -0.99936094 | 0.202559665 | -4.933662083 | 8.0702E-07 | 0.000199083 | 448 | 339 | 409 | 199 | 182 | 218 |
| Agmat | ENSMUSG00000040706 | 109.9081043 | 1.749480608 | 0.356346257 | 4.909496239 | 9.13107E-07 | 0.00022225 | 43 | 76 | 32 | 141 | 165 | 203 |
| Fah | ENSMUSG00000030630 | 277.5693319 | -2.329499925 | 0.474897669 | -4.905267126 | 9.33003E-07 | 0.000224105 | 592 | 535 | 262 | 143 | 97 | 37 |
| Gm10259 | ENSMUSG00000069083 | 134.3520769 | 1.049901905 | 0.214274679 | 4.899794548 | 9.59369E-07 | 0.000227445 | 87 | 80 | 96 | 190 | 169 | 184 |
| Egfl6 | ENSMUSG00000000402 | 1006.992389 | 1.61791971 | 0.330863982 | 4.889984403 | 1.00844E-06 | 0.000236014 | 520 | 695 | 270 | 1668 | 1532 | 1357 |
| Prss35 | ENSMUSG00000033491 | 9930.443383 | -1.041148054 | 0.213173269 | -4.884046011 | 1.03931E-06 | 0.000240159 | 13228 | 14921 | 11949 | 8033 | 5346 | 6106 |
| Nr4a2 | ENSMUSG00000026826 | 184.9261161 | 1.323367864 | 0.272155921 | 4.86253564 | 1.15892E-06 | 0.000266445 | 87 | 138 | 92 | 306 | 218 | 268 |
| Nupr1 | ENSMUSG00000030717 | 152.3822309 | -1.195960888 | 0.246092968 | -4.859793018 | 1.17509E-06 | 0.000264829 | 185 | 213 | 239 | 72 | 104 | 101 |
| Slc18a1 | ENSMUSG00000026330 | 140.5386292 | -1.255212075 | 0.258760383 | -4.8508665 | 1.22923E-06 | 0.000273654 | 233 | 150 | 212 | 78 | 83 | 89 |
| Rab3c | ENSMUSG00000031700 | 223.3071547 | -1.565523907 | 0.32367495 | -4.836712299 | 1.32002E-06 | 0.000293324 | 489 | 278 | 235 | 113 | 127 | 98 |
| Pla2g2d | ENSMUSG00000041202 | 249.0889622 | 1.485023824 | 0.307456326 | 4.830031772 | 1.36511E-06 | 0.00029464 | 103 | 123 | 167 | 274 | 333 | 494 |
| Mthfd2 | ENSMUSG00000005667 | 619.374188 | -1.413069033 | 0.292618964 | -4.829041164 | 1.37192E-06 | 0.00029464 | 923 | 1192 | 587 | 355 | 283 | 377 |
| Parvb | ENSMUSG00000022438 | 907.9631483 | -1.232852212 | 0.256581684 | -4.804911216 | 1.5482E-06 | 0.000328633 | 1694 | 1150 | 978 | 468 | 558 | 600 |
| Cdk1 | ENSMUSG00000019942 | 147.4672881 | 1.160514945 | 0.242896962 | 4.777807583 | 1.7721E-06 | 0.00037185 | 94 | 79 | 101 | 176 | 192 | 243 |
| Gucy1b3 | ENSMUSG00000028005 | 306.6615008 | -0.98913099 | 0.207202732 | -4.773735262 | 1.8084E-06 | 0.00037514 | 357 | 406 | 461 | 206 | 232 | 178 |
| Knstrn | ENSMUSG00000027331 | 103.0268642 | 1.417207893 | 0.298321675 | 4.750603158 | 2.02811E-06 | 0.00041599 | 71 | 60 | 37 | 148 | 135 | 167 |
| Cda | ENSMUSG00000028755 | 146.8801099 | -1.646082627 | 0.347579709 | -4.735842126 | 2.18147E-06 | 0.00044706 | 203 | 157 | 309 | 51 | 71 | 92 |
| Mki67 | ENSMUSG00000031004 | 291.4866668 | 1.137088925 | 0.240383525 | 4.730311389 | 2.24176E-06 | 0.000449706 | 236 | 163 | 148 | 397 | 370 | 435 |
| Car2 | ENSMUSG00000027350 | 1253.218039 | 1.10429218 | 0.234213154 | 4.714902473 | 2.41827E-06 | 0.000479842 | 680 | 752 | 955 | 1387 | 1652 | 2094 |
| Lonrf1 | ENSMUSG00000039633 | 331.2282891 | 1.233435024 | 0.262628882 | 4.696494213 | 2.64665E-06 | 0.000519511 | 179 | 237 | 177 | 593 | 445 | 357 |
| Mpped2 | ENSMUSG00000016386 | 3139.876544 | 0.63849334 | 0.136304467 | 4.684317059 | 2.80895E-06 | 0.000539869 | 2318 | 2538 | 2513 | 3699 | 3697 | 4075 |
| Cd83 | ENSMUSG00000015396 | 416.4796849 | -1.161294329 | 0.247913281 | -4.684276398 | 2.80951E-06 | 0.000539869 | 729 | 566 | 432 | 281 | 259 | 231 |
| Nr5a1os | ENSMUSG00000087164 | 27.26914142 | 2.404874689 | 0.513904957 | 4.679609827 | 2.87421E-06 | 0.0005465 | 9 | 7 | 10 | 64 | 27 | 46 |
| Nr4a1 | ENSMUSG00000023034 | 3218.217325 | 1.748964944 | 0.374141382 | 4.67460973 | 2.94513E-06 | 0.000554262 | 861 | 2284 | 1282 | 6701 | 4141 | 4040 |
| Aldh1a3 | ENSMUSG00000015134 | 467.2695007 | -1.107896714 | 0.237124674 | -4.672211853 | 2.97973E-06 | 0.000555051 | 700 | 725 | 489 | 350 | 268 | 271 |
| Gm5532 | ENSMUSG00000073535 | 488.5305659 | -0.84929822 | 0.182738729 | -4.647609322 | 3.35804E-06 | 0.000619202 | 607 | 581 | 698 | 392 | 338 | 316 |
| Zfand5 | ENSMUSG00000024750 | 8665.759624 | 0.941811005 | 0.203888944 | 4.619235286 | 3.85157E-06 | 0.000703104 | 5182 | 6080 | 6539 | 12992 | 9122 | 12080 |
| Tfap2b | ENSMUSG00000025927 | 55.44423196 | -1.934508352 | 0.419775028 | -4.608440769 | 4.057E-06 | 0.000733272 | 128 | 54 | 82 | 18 | 27 | 24 |
| Olfml3 | ENSMUSG00000027848 | 969.5445239 | -1.888547516 | 0.193186402 | -4.599430952 | 4.23647E-06 | 0.000751378 | 1081 | 1447 | 1249 | 603 | 679 | 758 |
| Th | ENSMUSG00000000214 | 664.8652159 | -1.271184803 | 0.276387647 | -4.599282266 | 4.23949E-06 | 0.000751378 | 1213 | 944 | 663 | 343 | 352 | 474 |
| Aldh1l2 | ENSMUSG00000020256 | 61.43684502 | -3.40199281 | 0.74213638 | -4.56048E-06 | 0.000797931 | | 167 | 156 | 14 | 14 | 10 | 8 |
| Atp1a3 | ENSMUSG00000049007 | 839.1563675 | 0.979117024 | 0.213823698 | 4.579085644 | 4.67013E-06 | 0.000797931 | 605 | 659 | 431 | 1193 | 1083 | 1065 |
| 2dhhc14 | ENSMUSG00000034265 | 239.2364174 | 0.950774351 | 0.207657838 | 4.578562317 | 4.68183E-06 | 0.000797931 | 151 | 185 | 153 | 289 | 360 | 297 |
| Bhlha15 | ENSMUSG00000052271 | 68.0021665 | -2.708629647 | 0.591612861 | -4.578381956 | 4.68586E-06 | 0.000797931 | 134 | 174 | 45 | 31 | 16 | 8 |
| Col6a5 | ENSMUSG00000091345 | 170.3833496 | -1.259524317 | 0.275195686 | -4.57683162 | 4.72071E-06 | 0.000797931 | 289 | 180 | 252 | 90 | 122 | 89 |
| Bcl11b | ENSMUSG00000048251 | 70.78187861 | 1.415546566 | 0.309417976 | 4.574868549 | 4.76519E-06 | 0.0008234 | 30 | 38 | 47 | 106 | 119 | 84 |
| Kif22 | ENSMUSG00000030677 | 82.12110479 | 1.282323201 | 0.280817175 | 4.566398765 | 4.96174E-06 | 0.000823424 | 59 | 46 | 38 | 101 | 123 | 124 |
| RP23-177G20.1 | ENSMUSG00000107863 | 11.29025076 | 5.962062886 | 1.308885947 | 4.555066774 | 5.23689E-06 | 0.000853948 | 0 | 1 | 0 | 14 | 28 | 24 |
| Cdh12 | ENSMUSG00000040452 | 69.66354156 | 3.090593993 | 0.678509851 | 4.554972911 | 5.23923E-06 | 0.000853948 | 12 | 16 | 16 | 237 | 23 | 114 |
| Ikzf4 | ENSMUSG00000002578 | 328.2742075 | -1.518673221 | 0.33362031 | -4.552100622 | 5.31129E-06 | 0.000858023 | 728 | 413 | 319 | 190 | 145 | 175 |
| Hlf | ENSMUSG00000003949 | 2227.842391 | 1.41579152 | 0.31178142 | 4.540974636 | 5.59948E-06 | 0.000896653 | 792 | 1475 | 1376 | 4308 | 2947 | 2468 |
| Cxcl12 | ENSMUSG00000061353 | 776.7368749 | -1.124499586 | 0.247850689 | -4.537004069 | 5.7059E-06 | 0.000909075 | 764 | 1062 | 1368 | 468 | 488 | 509 |
| Smpdl3b | ENSMUSG00000028885 | 403.4786527 | 1.424143899 | 0.315357333 | 4.515968877 | 6.30279E-06 | 0.000991875 | 129 | 218 | 311 | 571 | 625 | 567 |
| Rrm2 | ENSMUSG00000020649 | 200.7001551 | 1.259444837 | 0.278970172 | 4.512930312 | 6.3938E-06 | 0.000991875 | 156 | 120 | 79 | 281 | 274 | 294 |
| Itgb8 | ENSMUSG00000025321 | 411.931421 | -1.136509041 | 0.253143141 | -4.489590504 | 7.13602E-06 | 0.001103967 | 667 | 580 | 452 | 289 | 289 | 195 |
| Six6 | ENSMUSG00000034460 | 85.3605262 | 1.116569134 | 0.248857753 | 4.48659628 | 7.237E-06 | 0.00111018 | 55 | 48 | 58 | 107 | 120 | 123 |
| Hid1 | ENSMUSG00000034586 | 640.697366 | -0.897692436 | 0.20170544 | -4.450511773 | 8.56659E-06 | 0.001301371 | 781 | 1012 | 708 | 471 | 446 | 426 |
| Kcnd3 | ENSMUSG00000040896 | 352.5475759 | -1.163155586 | 0.261440278 | -4.449029794 | 8.62591E-06 | 0.001301371 | 578 | 543 | 342 | 190 | 219 | 243 |
| Ccne1 | ENSMUSG00000002068 | 51.40427609 | 1.376878286 | 0.311138328 | 4.425293067 | 9.63114E-06 | 0.001429637 | 31 | 32 | 23 | 78 | 66 | 79 |
| Glipr2 | ENSMUSG00000028480 | 100.6326047 | -1.824346566 | 0.412257704 | -4.425257672 | 9.63272E-06 | 0.001429637 | 253 | 116 | 102 | 34 | 50 | 48 |
| Frmd5 | ENSMUSG00000027238 | 308.5170237 | 1.254043188 | 0.283906998 | 4.417091505 | 1.00038E-05 | 0.001472735 | 165 | 234 | 148 | 567 | 362 | 375 |
| Ccnb2 | ENSMUSG00000027330 | 93.646426 | 1.271830893 | 0.293061728 | 4.34003228 | 1.18592E-05 | 0.001731919 | 52 | 56 | 56 | 116 | 109 | 89 |
| Gm43549 | ENSMUSG00000106334 | 218.6876104 | 1.650182437 | 0.377453149 | 4.371886786 | 1.23177E-05 | 0.001784606 | 81 | 78 | 158 | 320 | 453 | 222 |
| Pea15a | ENSMUSG00000013698 | 1770.064806 | -0.705215423 | 0.161790252 | -4.358825167 | 1.30763E-05 | 0.001879583 | 2469 | 2189 | 1925 | 1331 | 1377 | 1330 |
| Avpr1a | ENSMUSG00000020123 | 80.03141989 | -2.26477525 | 0.519823701 | -4.356811435 | 1.31969E-05 | 0.001882088 | 145 | 120 | 132 | 56 | 14 | 14 |
| Plin5 | ENSMUSG00000011305 | 45.53551057 | -1.837287844 | 0.422187614 | -4.351827912 | 1.35007E-05 | 0.001910509 | 95 | 69 | 49 | 28 | 18 | 14 |
| Lcn2 | ENSMUSG00000026822 | 19.07541613 | -2.739861335 | 0.630756443 | -4.343770669 | 1.40058E-05 | 0.001953918 | 36 | 44 | 19 | 7 | 2 | 6 |
| Gata1 | ENSMUSG00000031162 | 31.1883529 | -1.807619632 | 0.416164341 | -4.343523586 | 1.40215E-05 | 0.001953918 | 56 | 51 | 38 | 14 | 17 | 10 |
| Hoxb8 | ENSMUSG00000001657 | 762.8319993 | -0.924543214 | 0.213445098 | -4.33152704 | 1.48079E-05 | 0.002053128 | 871 | 873 | 1253 | 491 | 549 | 540 |
| Ciapin1 | ENSMUSG00000031781 | 955.7178131 | 0.608711614 | 0.140602789 | 4.329299712 | 1.49584E-05 | 0.002053128 | 732 | 737 | 802 | 1118 | 1145 | 1201 |
| Rbms3 | ENSMUSG00000039607 | 788.4523645 | -0.795127202 | 0.184499007 | -4.309655719 | 1.63509E-05 | 0.002227504 | 878 | 941 | 1182 | 568 | 602 | 559 |
| Insm1 | ENSMUSG00000068154 | 66.30212499 | -1.884121868 | 0.439333449 | -4.28860166 | 1.79802E-05 | 0.002431316 | 143 | 52 | 118 | 24 | 24 | 37 |
| Pak3 | ENSMUSG00000031284 | 2208.544469 | -0.771156726 | 0.179974439 | -4.284812489 | 1.82893E-05 | 0.002454113 | 2872 | 3038 | 2446 | 1682 | 1414 | 1800 |
| Syt1 | ENSMUSG00000035864 | 110.9936341 | -1.347834733 | 0.314675094 | -4.283258377 | 1.84176E-05 | 0.002454113 | 224 | 121 | 133 | 61 | 63 | 64 |
| Slc18a2 | ENSMUSG00000025094 | 108.3077177 | -1.337595663 | 0.312449386 | -4.280880983 | 1.86056E-05 | 0.002461194 | 183 | 113 | 169 | 67 | 45 | 72 |
| Nrxn1 | ENSMUSG00000024109 | 142.5119076 | -1.677779904 | 0.392106942 | -4.278878351 | 1.87837E-05 | 0.002466887 | 235 | 115 | 301 | 49 | 79 | 76 |
| Hs3st1 | ENSMUSG00000051022 | 533.6212262 | 0.808736786 | 0.189319747 | 4.271307656 | 1.93898E-05 | 0.002512257 | 447 | 353 | 364 | 753 | 614 | 671 |
| Chga | ENSMUSG00000021194 | 6300.082438 | -1.303450585 | 0.305140868 | -4.271635571 | 1.94045E-05 | 0.002512257 | 9487 | 5817 | 11598 | 3035 | 3157 | 4707 |
| Sparcl1 | ENSMUSG00000029309 | 1612.766187 | -0.862006038 | 0.20266049 | -4.253448898 | 2.10503E-05 | 0.002706149 | 2306 | 2206 | 1730 | 1194 | 1276 | 964 |
| Zfp185 | ENSMUSG00000031351 | 209.2415304 | -1.112940497 | 0.261808366 | -4.250973771 | 2.12843E-05 | 0.002717098 | 352 | 286 | 221 | 153 | 134 | 110 |

# Table S4. Genes differentially expressed ABC_Hoxb9 Male vs ABC Male

| Gene | ENSEMBL_Gene_ID | baseMean | log2FoldChange | lfcSE | stat | pvalue | padj | Read count | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 166836_Norma | 166838_Norma | 182098_Norma | 165229_Norma | 182083_Turq1 | 182086_Turq19 |
| Tubb2b | ENSMUSG00000045136 | 418.5396414 | 1.023461693 | 0.241586642 | 4.236416726 | 2.27115E-05 | 0.002879157 | 232 | 338 | 258 | 555 | 460 | 668 |
| Srebf1 | ENSMUSG00000205538 | 3228.829072 | -1.202333941 | 0.286028738 | -4.203542473 | 2.6277E-05 | 0.003330182 | 5151 | 5488 | 2865 | 2329 | 1857 | 1684 |
| Lsr | ENSMUSG00000001247 | 283.1756427 | -1.108270339 | 0.263881828 | -4.199873661 | 2.67064E-05 | 0.003339214 | 426 | 297 | 439 | 136 | 204 | 199 |
| Klrg2 | ENSMUSG00000071537 | 245.896566 | -0.978859296 | 0.234352281 | -4.176811208 | 2.95546E-05 | 0.003670202 | 316 | 280 | 383 | 164 | 195 | 138 |
| Pcsk1n | ENSMUSG00000039278 | 383.7963342 | -0.968025839 | 0.232271051 | -4.167656005 | 3.07748E-05 | 0.003795904 | 524 | 426 | 575 | 207 | 263 | 309 |
| Hoxc6 | ENSMUSG00000001661 | 779.2579327 | -0.721850596 | 0.173300011 | -4.165323424 | 3.10911E-05 | 0.003883073 | 929 | 959 | 1022 | 617 | 646 | 502 |
| Faim2 | ENSMUSG00000023011 | 186.8510305 | -1.320852704 | 0.317539162 | -4.15965292 | 3.18732E-05 | 0.003878963 | 382 | 193 | 226 | 90 | 121 | 109 |
| Zswim6 | ENSMUSG00000032846 | 355.830239 | 0.763581377 | 0.183646231 | 4.157893004 | 3.21196E-05 | 0.003883073 | 298 | 239 | 254 | 483 | 444 | 417 |
| Ociad2 | ENSMUSG00000029153 | 600.0175298 | 0.820427614 | 0.197690863 | 4.150053279 | 3.32398E-05 | 0.003992055 | 473 | 480 | 349 | 807 | 784 | 708 |
| Plk1 | ENSMUSG00000030867 | 75.24432344 | 1.372584478 | 0.331057263 | 4.146063629 | 3.3824E-05 | 0.004035666 | 43 | 34 | 49 | 84 | 98 | 144 |
| Chac1 | ENSMUSG00000027313 | 77.72657713 | -1.377953876 | 0.332627834 | -4.142629492 | 3.43346E-05 | 0.004065097 | 130 | 124 | 83 | 42 | 55 | 32 |
| Racgap1 | ENSMUSG00000023015 | 157.7841987 | 1.059080788 | 0.255728818 | 4.141421363 | 3.4516E-05 | 0.004065097 | 119 | 104 | 84 | 182 | 199 | 258 |
| Cdca2 | ENSMUSG00000048922 | 42.83410558 | 1.600410171 | 0.387753942 | 4.127385946 | 3.6691E-05 | 0.004266612 | 26 | 25 | 13 | 57 | 56 | 80 |
| Lnx1 | ENSMUSG00000029228 | 152.7537176 | -1.38522923 | 0.335620789 | -4.127364205 | 3.66945E-05 | 0.004266612 | 310 | 167 | 187 | 75 | 111 | 68 |
| Actg1 | ENSMUSG00000062825 | 18153.77224 | 0.629414448 | 0.152608351 | 4.124377477 | 3.71739E-05 | 0.004294995 | 12984 | 15636 | 14146 | 23458 | 22312 | 20387 |
| Traf4 | ENSMUSG00000017386 | 309.3234089 | 0.794445591 | 0.19400769 | 4.094918047 | 4.22318E-05 | 0.004848686 | 240 | 250 | 189 | 383 | 381 | 414 |
| Neto2 | ENSMUSG00000036902 | 125.3040039 | 0.882450042 | 0.216704236 | 4.072140246 | 4.65831E-05 | 0.005290626 | 82 | 88 | 95 | 160 | 151 | 176 |
| Slc4a11 | ENSMUSG00000074796 | 92.41990767 | -1.555342622 | 0.381983559 | -4.071752786 | 4.66607E-05 | 0.005290626 | 107 | 171 | 135 | 69 | 45 | 27 |
| Suox | ENSMUSG00000049858 | 659.1906862 | -0.712076157 | 0.175500642 | -4.057399148 | 4.96222E-05 | 0.005557291 | 897 | 804 | 754 | 561 | 453 | 485 |
| Lrat | ENSMUSG00000028003 | 19.52735844 | -2.770320728 | 0.682811146 | -4.057241512 | 4.96557E-05 | 0.005557291 | 30 | 21 | 51 | 8 | 6 | 1 |
| Dbh | ENSMUSG00000023000 | 432.0742937 | -0.9257802 | 0.228251019 | -4.055974004 | 4.99258E-05 | 0.005557291 | 665 | 599 | 434 | 327 | 299 | 268 |
| Cpeb1 | ENSMUSG00000025586 | 520.8678764 | 0.967181581 | 0.238678455 | 4.052236645 | 5.07303E-05 | 0.005612617 | 351 | 354 | 353 | 867 | 692 | 508 |
| Pdgfd | ENSMUSG00000032006 | 1118.682583 | -0.760131781 | 0.187830337 | -4.046906342 | 5.1899E-05 | 0.005707326 | 1503 | 1494 | 1223 | 956 | 796 | 740 |
| Etv4 | ENSMUSG00000017724 | 122.4242107 | 0.942811535 | 0.233150257 | 4.043793675 | 5.25932E-05 | 0.005749036 | 93 | 84 | 75 | 168 | 176 | 140 |
| Tspan11 | ENSMUSG00000030351 | 977.1611964 | -1.118791587 | 0.277710736 | -4.028622026 | 5.61047E-05 | 0.005985548 | 1507 | 1037 | 1471 | 421 | 680 | 747 |
| Gm21857 | ENSMUSG00000095134 | 106.8579732 | 1.002202919 | 0.248839525 | 4.027506967 | 5.63714E-05 | 0.005985548 | 79 | 72 | 63 | 164 | 142 | 122 |
| Ccna2 | ENSMUSG00000027715 | 143.9642223 | 1.058331069 | 0.262783311 | 4.027390722 | 5.63993E-05 | 0.005985548 | 122 | 86 | 73 | 180 | 195 | 208 |
| Sord | ENSMUSG00000027227 | 5442.175027 | 0.852213272 | 0.211733615 | 4.024931377 | 5.69919E-05 | 0.005985548 | 3046 | 3995 | 4600 | 7689 | 7122 | 6202 |
| Ptprn | ENSMUSG00000026204 | 209.2467642 | -1.045424662 | 0.259820211 | -4.023646419 | 5.73039E-05 | 0.005985548 | 361 | 258 | 227 | 123 | 158 | 128 |
| Camkv | ENSMUSG00000032936 | 1616.278286 | 0.815798385 | 0.202770784 | 4.023254089 | 5.73995E-05 | 0.005985548 | 1032 | 1197 | 1285 | 2295 | 2234 | 1655 |
| 6430573F11Rik | ENSMUSG00000039620 | 174.2666171 | 0.970284357 | 0.241196295 | 4.022799585 | 5.75104E-05 | 0.005985548 | 117 | 112 | 124 | 256 | 260 | 176 |
| Slc31a2 | ENSMUSG00000066152 | 650.4244709 | -0.631960782 | 0.157105468 | -4.022525701 | 5.75774E-05 | 0.005985548 | 739 | 789 | 843 | 551 | 485 | 495 |
| Dbh | ENSMUSG00000000889 | 1248.142421 | -0.997680203 | 0.248056191 | -4.021992748 | 5.77078E-05 | 0.005985548 | 1974 | 1317 | 1699 | 689 | 761 | 1048 |
| Ddc | ENSMUSG00000020182 | 202.2755968 | -1.262810715 | 0.314300967 | -4.017839108 | 5.87343E-05 | 0.006057594 | 278 | 204 | 375 | 86 | 127 | 144 |
| Myot | ENSMUSG00000024471 | 56.33413627 | 1.489116893 | 0.370820691 | 4.015733013 | 5.92613E-05 | 0.006599479 | 31 | 34 | 24 | 113 | 80 | 57 |
| D930016D06Rik | ENSMUSG00000097392 | 107.0065075 | 1.209674013 | 0.30280176 | 3.994937195 | 6.47114E-05 | 0.006599479 | 65 | 47 | 82 | 119 | 179 | 150 |
| Wisp2 | ENSMUSG00000027656 | 27.63785264 | 2.186899876 | 0.547867235 | 3.991660268 | 6.56123E-05 | 0.006688509 | 8 | 13 | 9 | 24 | 41 | 71 |
| Sun2 | ENSMUSG00000042524 | 1959.570288 | -0.54766398 | 0.137304051 | -3.988694994 | 6.64378E-05 | 0.006688509 | 2366 | 2443 | 2172 | 1631 | 1623 | 1523 |
| Fam64a | ENSMUSG00000020808 | 61.2169183 | 1.503846138 | 0.377227773 | 3.986573224 | 6.70344E-05 | 0.006688509 | 44 | 26 | 26 | 70 | 79 | 122 |
| Nr1h4 | ENSMUSG00000047638 | 188.2740738 | 0.938459797 | 0.235426862 | 3.986205269 | 6.71384E-05 | 0.006688509 | 135 | 120 | 132 | 303 | 203 | 236 |
| Rnd5 | ENSMUSG00000017144 | 562.0778444 | 0.801450268 | 0.201188466 | 3.983579601 | 6.78849E-05 | 0.006688509 | 332 | 467 | 431 | 783 | 688 | 671 |
| Kcnn2 | ENSMUSG00000054477 | 4631.750122 | 0.731446193 | 0.183645116 | 3.982932997 | 6.80729E-05 | 0.006688509 | 2874 | 3521 | 4052 | 5619 | 5643 | 6081 |
| Slc35f2 | ENSMUSG00000004195 | 37.32932634 | -1.539792276 | 0.386624401 | -3.982656736 | 6.81492E-05 | 0.006688509 | 72 | 45 | 49 | 18 | 23 | 16 |
| Igf2bp2 | ENSMUSG00000033581 | 282.0886669 | 0.698542651 | 0.175517186 | 3.979910265 | 6.89413E-05 | 0.006730071 | 236 | 214 | 196 | 347 | 346 | 355 |
| Rgs7bp | ENSMUSG00000021719 | 377.4442783 | 0.813921858 | 0.204803114 | 3.974167392 | 7.06259E-05 | 0.006857848 | 290 | 269 | 262 | 560 | 490 | 393 |
| Pclo | ENSMUSG00000061601 | 122.3815225 | -1.29127948 | 0.325665306 | -3.965050798 | 7.33803E-05 | 0.007087607 | 237 | 171 | 113 | 78 | 63 | 72 |
| Fam181b | ENSMUSG00000051515 | 335.0259434 | -0.63348465 | 0.159833141 | -3.963412386 | 7.3886E-05 | 0.007098888 | 399 | 405 | 418 | 273 | 251 | 263 |
| Tpx2 | ENSMUSG00000027469 | 144.7638874 | 0.96516283 | 0.243618182 | 3.961784883 | 7.43916E-05 | 0.007110041 | 114 | 96 | 85 | 190 | 162 | 222 |
| Camk2b | ENSMUSG00000057897 | 400.1141363 | -1.045379948 | 0.265207226 | -3.941747607 | 8.08901E-05 | 0.007690876 | 543 | 667 | 407 | 255 | 212 | 317 |
| Ndufa4l2 | ENSMUSG00000040280 | 240.4354708 | -0.906539219 | 0.230904626 | -3.926033155 | 8.63583E-05 | 0.008168238 | 302 | 269 | 370 | 154 | 198 | 149 |
| Malt1 | ENSMUSG00000032688 | 919.7664413 | 0.768525872 | 0.196926278 | 3.902607008 | 9.51621E-05 | 0.008954562 | 609 | 837 | 596 | 1159 | 1136 | 1182 |
| E130012A19Rik | ENSMUSG00000043439 | 118.9157044 | 0.868885815 | 0.222834806 | 3.899237431 | 9.64961E-05 | 0.009033521 | 73 | 86 | 94 | 155 | 156 | 149 |
| Speg | ENSMUSG00000026082 | 248.1606696 | -0.682933129 | 0.175361854 | -3.894422384 | 9.8433E-05 | 0.009167829 | 301 | 321 | 295 | 186 | 203 | 182 |
| Rev1 | ENSMUSG00000026082 | 634.3872379 | 0.729592607 | 0.187476324 | 3.891651974 | 9.9564E-05 | 0.009226095 | 468 | 517 | 447 | 919 | 765 | 690 |
| Mybpc1 | ENSMUSG00000020061 | 9394.481961 | 1.084364553 | 0.27901008 | 3.886470891 | 0.000101712 | 0.009377549 | 6500 | 7452 | 4112 | 15594 | 12560 | 10150 |
| Cyp2d22 | ENSMUSG00000061740 | 1029.869144 | -0.630955951 | 0.162397896 | -3.88524709 | 0.000102226 | 0.009377551 | 1183 | 1197 | 1375 | 757 | 780 | 888 |
| Aurkb | ENSMUSG00000028897 | 64.63770226 | 1.323940721 | 0.342034039 | 3.870786441 | 0.000108485 | 0.00990195 | 45 | 32 | 34 | 65 | 95 | 117 |
| Thra | ENSMUSG00000058756 | 2150.000944 | -0.74266064 | 0.19201283 | -3.867765715 | 0.000109837 | 0.009975505 | 3109 | 2176 | 2790 | 1501 | 1656 | 1669 |
| Rtn4rl1 | ENSMUSG00000045287 | 5413.863964 | -0.545513715 | 0.146156038 | -3.862404332 | 0.000112277 | 0.010146575 | 6419 | 6089 | 6871 | 4524 | 4610 | 3970 |
| Cryba4 | ENSMUSG00000066975 | 89.19847543 | -1.882307362 | 0.489042365 | -3.848965848 | 0.000118618 | 0.010666814 | 182 | 171 | 69 | 48 | 17 | 49 |
| Tmem108 | ENSMUSG00000042757 | 56.26423378 | 1.232661358 | 0.321211972 | 3.83753242 | 0.000124277 | 0.01120949 | 44 | 27 | 30 | 69 | 86 | 81 |
| Npas4 | ENSMUSG00000045903 | 10.18372232 | 5.811161757 | 1.515350517 | 3.834863083 | 0.000125634 | 0.011187578 | 0 | 1 | 0 | 2 | 27 | 31 |
| Gm2a | ENSMUSG00000000594 | 7057.545762 | -0.497122103 | 0.129678361 | -3.833500823 | 0.000126332 | 0.011195134 | 8438 | 8253 | 8093 | 5572 | 5730 | 6259 |
| Cited1 | ENSMUSG00000051159 | 224.5901391 | -1.469335284 | 0.384699298 | -3.819438432 | 0.00013756 | 0.011795714 | 225 | 304 | 462 | 84 | 93 | 180 |
| Pbk | ENSMUSG00000022033 | 113.9715047 | 1.29020434 | 0.33861256 | 3.810267228 | 0.0001388817 | 0.012131878 | 90 | 57 | 51 | 131 | 136 | 218 |
| Dusp26 | ENSMUSG00000039661 | 42.60715353 | -1.380618706 | 0.362355282 | -3.810124418 | 0.000138897 | 0.012131878 | 59 | 50 | 76 | 18 | 25 | 28 |
| Slc6a5 | ENSMUSG00000039728 | 102.310154 | 2.03876788 | 0.535304152 | 3.808615581 | 0.000139747 | 0.012147995 | 44 | 66 | 10 | 201 | 118 | 175 |
| Rasgrf1 | ENSMUSG00000032356 | 318.0220267 | 1.267824371 | 0.334221823 | 3.79336202 | 0.000148621 | 0.012858202 | 116 | 157 | 287 | 435 | 462 | 451 |
| Inhbb | ENSMUSG00000037035 | 137.7303923 | 0.831119833 | 0.219212528 | 3.791388389 | 0.000149807 | 0.012861515 | 84 | 101 | 113 | 174 | 178 | 177 |
| Filip1l | ENSMUSG00000043336 | 902.4789056 | -0.648486979 | 0.171061601 | -3.790955867 | 0.000150069 | 0.012861515 | 1195 | 1116 | 995 | 700 | 633 | 776 |
| Coq10b | ENSMUSG00000025981 | 2232.794745 | 1.356827515 | 0.358302215 | 3.786824249 | 0.000152585 | 0.01296079 | 623 | 1374 | 1765 | 3295 | 2700 | 3640 |
| Kpna2 | ENSMUSG00000018362 | 450.8287847 | 0.865142036 | 0.228467193 | 3.786723267 | 0.000152647 | 0.01296079 | 276 | 288 | 395 | 537 | 528 | 681 |
| Exoc3l | ENSMUSG00000043251 | 589.7151442 | -0.772386375 | 0.204640136 | -3.774364063 | 0.000160416 | 0.01355741 | 758 | 678 | 796 | 353 | 513 | 441 |
| Amigo1 | ENSMUSG00000050947 | 1511.529133 | -0.577406641 | 0.153117259 | -3.771009508 | 0.000162588 | 0.013579688 | 1862 | 1792 | 1777 | 1315 | 1249 | 1075 |
| Rnf144a | ENSMUSG00000020642 | 607.6727328 | -1.120551053 | 0.297176411 | -3.770659487 | 0.000162817 | 0.013579688 | 1035 | 917 | 545 | 459 | 391 | 298 |
| Lrrc55 | ENSMUSG00000075224 | 1620.575009 | 0.856840215 | 0.227247585 | 3.770514064 | 0.000162912 | 0.013579688 | 1313 | 1299 | 847 | 2134 | 1873 | 2258 |
| Mmp24 | ENSMUSG00000027612 | 127.4578784 | -1.231622212 | 0.327340639 | -3.762509335 | 0.000168217 | 0.013953819 | 184 | 238 | 115 | 77 | 64 | 88 |
| Hoxb9 | ENSMUSG00000020875 | 7376.084465 | 0.590792812 | 0.157221516 | 3.757709668 | 0.000171476 | 0.014164201 | 5219 | 5963 | 6478 | 8781 | 8359 | 9457 |
| Rasd2 | ENSMUSG00000034472 | 172.5018823 | 1.474397012 | 0.393597446 | 3.745951672 | 0.000179711 | 0.014777602 | 63 | 76 | 135 | 250 | 352 | 158 |
| Kif23 | ENSMUSG00000032254 | 81.68690395 | 1.228884664 | 0.328743626 | 3.738124686 | 0.000185398 | 0.015162759 | 67 | 42 | 37 | 89 | 126 | 128 |
| Cdh5 | ENSMUSG00000039385 | 121.4153391 | 2.337397534 | 0.625435283 | 3.737233249 | 0.000186056 | 0.015162759 | 63 | 49 | 8 | 236 | 283 | 90 |
| Adcyap1r1 | ENSMUSG00000029778 | 231.4571377 | -0.968172933 | 0.259281201 | -3.734065293 | 0.000188414 | 0.015221437 | 371 | 316 | 232 | 153 | 184 | 151 |
| Zcchc16 | ENSMUSG00000021679 | 32.64205618 | -1.498650534 | 0.401349921 | -3.73402474 | 0.000188444 | 0.015221437 | 56 | 39 | 49 | 11 | 21 | 18 |
| Tacc3 | ENSMUSG00000037313 | 153.9300181 | 0.860299699 | 0.230707736 | 3.728959053 | 0.000192272 | 0.015462258 | 126 | 106 | 96 | 170 | 207 | 219 |
| Cenpe | ENSMUSG00000045328 | 85.67547363 | 1.010855283 | 0.271272196 | 3.726350496 | 0.000194272 | 0.015554558 | 68 | 59 | 43 | 120 | 117 | 106 |
| Lama3 | ENSMUSG00000024421 | 1989.579411 | 0.597820451 | 0.160813089 | 3.717486273 | 0.000201215 | 0.01597681 | 1631 | 1651 | 1468 | 2122 | 2628 | 2438 |
| Synpr | ENSMUSG00000056296 | 57.37625275 | -1.336628023 | 0.359561469 | -3.717383918 | 0.000201296 | 0.01597681 | 103 | 61 | 83 | 28 | 26 | 43 |
| 2810417H13Rik | ENSMUSG00000040204 | 57.107781 | 1.066505946 | 0.287043813 | 3.715481394 | 0.000202817 | 0.016018115 | 36 | 34 | 40 | 68 | 84 | 80 |
| St3gal6 | ENSMUSG00000022747 | 191.0852773 | -0.800271397 | 0.215442798 | -3.714542353 | 0.000203572 | 0.016018115 | 273 | 221 | 235 | 120 | 141 | 157 |
| Lrrc2 | ENSMUSG00000032495 | 85.77068688 | 1.078655216 | 0.29088526 | 3.708181078 | 0.000208753 | 0.016304089 | 52 | 64 | 49 | 88 | 125 | 136 |
| Il34 | ENSMUSG00000031750 | 231.7039144 | -0.740274272 | 0.199648328 | -3.707891172 | 0.000208992 | 0.016304089 | 265 | 268 | 337 | 179 | 167 | 175 |
| Acan | ENSMUSG00000030607 | 3654.977925 | -0.679796281 | 0.183376366 | -3.699173786 | 0.000216302 | 0.016830499 | 4281 | 5339 | 3882 | 2977 | 2628 | 2823 |
| 1700025G04Rik | ENSMUSG00000032666 | 4961.779424 | 0.727533067 | 0.197006128 | 3.692946375 | 0.000221671 | 0.017110404 | 3628 | 4069 | 3513 | 7568 | 5566 | 5427 |
| Eef1a2 | ENSMUSG00000016349 | 166.7423519 | -1.141287014 | 0.30916266 | -3.691542227 | 0.000222898 | 0.017110404 | 285 | 155 | 249 | 80 | 113 | 120 |
| Kif2c | ENSMUSG00000028678 | 44.20580038 | 1.460649903 | 0.395696583 | 3.691338177 | 0.00023077 | 0.017110404 | 28 | 30 | 13 | 62 | 54 | 78 |
| Hmga2 | ENSMUSG00000056758 | 147.9209747 | 0.876111011 | 0.237964944 | 3.681680992 | 0.000231701 | 0.017597513 | 100 | 120 | 93 | 203 | 213 | 159 |
| Slc6a2 | ENSMUSG00000055368 | 61.78386139 | -1.431139243 | 0.389661229 | -3.672778137 | 0.000239928 | 0.01819126 | 125 | 67 | 79 | 22 | 43 | 36 |
| Slain1 | ENSMUSG00000055717 | 190.4866973 | 0.946079493 | 0.257609557 | 3.672532585 | 0.000240159 | 0.01819126 | 143 | 101 | 147 | 226 | 305 | 222 |
| Angptl6 | ENSMUSG00000038742 | 30.32942735 | -1.422708979 | 0.388252404 | -3.664391942 | 0.000247927 | 0.018638089 | 48 | 49 | 35 | 17 | 15 | 18 |
| Ngfr | ENSMUSG00000000120 | 49.93614471 | -1.389112975 | 0.379102597 | -3.664213819 | 0.000248099 | 0.018638089 | 88 | 47 | 86 | 22 | 27 | 34 |
| Cd47 | ENSMUSG00000055447 | 2064.884265 | -0.621043217 | 0.169793094 | -3.657647095 | 0.000254541 | 0.019043645 | 2724 | 2649 | 2134 | 1720 | 1635 | 1527 |
| Cdca8 | ENSMUSG00000028873 | 92.37883761 | 1.059107792 | 0.289647218 | 3.656543987 | 0.000255639 | 0.019047681 | 64 | 45 | 71 | 105 | 121 | 149 |
| Ghdc | ENSMUSG00000017747 | 474.9103136 | -0.543469725 | 0.149000437 | -3.647437131 | 0.000264869 | 0.019655225 | 554 | 568 | 569 | 393 | 368 | 398 |
| Adamts15 | ENSMUSG00000013453 | 27.8251561 | -1.50775816 | 0.413875794 | -3.643006882 | 0.00026947 | 0.019914725 | 43 | 47 | 33 | 12 | 18 | 18 |
| Adamts20 | ENSMUSG00000022449 | 11.57774148 | 2.412816098 | 0.663484881 | 3.636580374 | 0.000276281 | 0.020336767 | 2 | 4 | 5 | 22 | 16 | 21 |
| Tmem180 | ENSMUSG00000025227 | 136.2915521 | -1.262528949 | 0.347286881 | -3.635406397 | 0.000277543 | 0.020347562 | 155 | 173 | 249 | 53 | 74 | 114 |
| Arhgef19 | ENSMUSG00000028919 | 1846.503445 | -1.193622077 | 0.328504268 | -3.633505536 | 0.000279596 | 0.020383931 | 3540 | 2749 | 1420 | 1225 | 1178 | 967 |
| Fgf20 | ENSMUSG00000031603 | 192.8671306 | 1.591993754 | 0.438217728 | 3.632883043 | 0.000280272 | 0.020383931 | 57 | 66 | 165 | 197 | 293 | 379 |
| Crispld2 | ENSMUSG00000031825 | 226.5560155 | -0.847089285 | 0.233476222 | -3.62816084 | 0.000285447 | 0.020691382 | 265 | 262 | 347 | 148 | 145 | 193 |
| Ass1 | ENSMUSG00000076441 | 219.9798425 | 0.900059415 | 0.248327555 | 3.62448467 | 0.000289538 | 0.020891382 | 116 | 185 | 159 | 273 | 258 | 328 |
| RP23-380L19.3 | ENSMUSG00000107881 | 1033.549866 | -0.953163082 | 0.263162471 | -3.62195673 | 0.000292383 | 0.021013592 | 1856 | 1215 | 1018 | 784 | 680 | 648 |
| Fbln1 | ENSMUSG00000006369 | 3108.106034 | 0.797337294 | 0.220389379 | 3.617857167 | 0.000297052 | 0.021265446 | 2731 | 2368 | 1712 | 4033 | 4221 | 3584 |
| Phf19 | ENSMUSG00000026873 | 52.18691151 | 1.27408016 | 0.352322458 | 3.616233174 | 0.000298921 | 0.021315646 | 32 | 40 | 19 | 73 | 82 | 67 |
| Ccnb1 | ENSMUSG00000041431 | 83.28288723 | 1.174580006 | 0.325197382 | 3.611898717 | 0.000303963 | 0.021554435 | 66 | 55 | 32 | 103 | 110 | 133 |
| Gm73329 | ENSMUSG00000100704 | 913.0940498 | -0.566108781 | 0.156759104 | -3.611329536 | 0.000304631 | 0.021554435 | 989 | 1100 | 1181 | 782 | 720 | 706 |
| Usp2 | ENSMUSG00000032010 | 1084.096811 | 1.031151942 | 0.285775767 | 3.608255357 | 0.000308263 | 0.021727186 | 439 | 811 | 887 | 1619 | 1350 | 1399 |
| Scn8a | ENSMUSG00000023033 | 198.9648604 | 1.152970956 | 0.319697146 | 3.606447453 | 0.000310418 | 0.021759083 | 102 | 117 | 151 | 182 | 269 | 372 |
| Ccnl1 | ENSMUSG00000027829 | 851.4275089 | 0.665451017 | 0.184595303 | 3.604918468 | 0.000312251 | 0.021759083 | 761 | 561 | 653 | 965 | 1080 | 1089 |
| Armcx1 | ENSMUSG00000033460 | 663.2327085 | -0.566954937 | 0.157274078 | -3.604884813 | 0.000312291 | 0.021759083 | 808 | 719 | 848 | 527 | 516 | 561 |
| Clip4 | ENSMUSG00000024059 | 184.8497947 | 0.780436076 | 0.216777488 | 3.600171232 | 0.000318008 | 0.022056982 | 127 | 129 | 152 | 198 | 251 | 253 |
| Sfxn2 | ENSMUSG00000025036 | 163.1923314 | -1.147089815 | 0.318691428 | -3.599374549 | 0.000318983 | 0.022056982 | 219 | 210 | 246 | 71 | 83 | 133 |
| B4galt5 | ENSMUSG00000017929 | 14880.88623 | 0.746992802 | 0.207782417 | 3.595072263 | 0.000324302 | 0.022340093 | 12323 | 12269 | 8745 | 20415 | 19329 | 16204 |
| Epn3 | ENSMUSG00000010080 | 42.17054742 | 1.727815478 | 0.481670108 | 3.587134534 | 0.000334332 | 0.022944466 | 25 | 26 | 8 | 42 | 76 | 76 |
| Trabd2b | ENSMUSG00000070867 | 128.3530385 | -1.185526392 | 0.330753054 | -3.584324858 | 0.000337951 | 0.023105993 | 194 | 116 | 225 | 72 | 99 | 64 |
| Alpk1 | ENSMUSG00000028028 | 138.9228627 | 0.838411803 | 0.234009453 | 3.581434266 | 0.000341713 | 0.023276019 | 103 | 80 | 187 | 168 | 179 | 99 |
| Rep15 | ENSMUSG00000040121 | 62.09524815 | -1.106019869 | 0.309018601 | -3.579136875 | 0.000344768 | 0.023394284 | 72 | 97 | 86 | 49 | 39 | 31 |
| Moxd1 | ENSMUSG00000020000 | 15.74674337 | -2.666626943 | 0.745646215 | -3.576262963 | 0.000348541 | 0.023565248 | 44 | 29 | 9 | 4 | 6 | 3 |
| Grin3b | ENSMUSG00000035745 | 9.445762791 | -3.103477884 | 0.868632389 | -3.572832334 | 0.000353141 | 0.023788143 | 8 | 24 | 19 | 1 | 2 | 3 |
| Rasl11a | ENSMUSG00000029641 | 70.11333221 | -1.144264003 | 0.320363163 | -3.571771455 | 0.000354575 | 0.023796921 | 102 | 73 | 115 | 34 | 44 | 53 |
| Gm10184 | ENSMUSG00000066878 | 186.5631671 | 0.922576539 | 0.258541779 | 3.568384736 | 0.000359189 | 0.024034286 | 109 | 109 | 168 | 229 | 226 | 278 |
| Abca1 | ENSMUSG00000015243 | 3616.26977 | -1.262845836 | 0.354398613 | -3.563348696 | 0.000366154 | 0.024394661 | 6512 | 5778 | 3026 | 2797 | 2208 | 1377 |
| Zp3 | ENSMUSG00000004948 | 10.01205374 | 3.170878026 | 0.891818509 | 3.555519417 | 0.000377233 | 0.024954979 | 1 | 0 | 5 | 12 | 21 | 20 |
| Slc6a17 | ENSMUSG00000027894 | 27.33425683 | -1.564812486 | 0.44012311 | -3.555397234 | 0.000377408 | 0.024954979 | 54 | 39 | 29 | 11 | 16 | 14 |
| Alas1 | ENSMUSG00000032786 | 19926.12601 | 0.847809454 | 0.238506006 | 3.553861667 | 0.000379619 | 0.024954979 | 11905 | 17691 | 13106 | 30033 | 20261 | 26560 |
| Rsad2 | ENSMUSG00000020641 | 1214.539784 | -0.534825618 | 0.150576374 | -3.551856141 | 0.000382524 | 0.024954979 | 1458 | 1530 | 1324 | 982 | 1058 | 935 |
| Top2a | ENSMUSG00000020914 | 274.6176256 | 0.970314978 | 0.273343659 | 3.551741931 | 0.00038269 | 0.024954979 | 227 | 210 | 120 | 365 | 350 | 376 |
| Tmem59l | ENSMUSG00000035964 | 78.84139826 | -1.261594749 | 0.355265393 | -3.551133249 | 0.000383576 | 0.024954979 | 112 | 81 | 141 | 43 | 33 | 63 |
| Cyp4f14 | ENSMUSG00000024292 | 160.8807066 | -0.952437423 | 0.268235463 | -3.550751405 | 0.000384133 | 0.024954979 | 175 | 272 | 190 | 103 | 97 | 128 |
| Bhmt | ENSMUSG00000074768 | 15.59651401 | -2.650916364 | 0.74728542 | -3.547394736 | 0.000389061 | 0.025185504 | 49 | 22 | 10 | 4 | 5 | 4 |
| Igf2 | ENSMUSG00000048583 | 100.9908325 | -1.406127338 | 0.396691927 | -3.544633107 | 0.00039316 | 0.0253603731 | 213 | 155 | 152 | 53 | 51 | 62 |
| Tmprss13 | ENSMUSG00000037129 | 28.38359611 | 1.858578106 | 0.52484567 | 3.541189745 | 0.000398327 | 0.025603731 | 17 | 15 | 5 | 30 | 43 | 61 |
| Smim1 | ENSMUSG00000078350 | 906.9765866 | -0.544687388 | 0.154265558 | -3.530842494 | 0.000414238 | 0.026533056 | 1017 | 1095 | 1116 | 812 | 696 | 705 |
| Fam110b | ENSMUSG00000049119 | 156.874744 | -0.748693407 | 0.212140065 | -3.529240958 | 0.000416753 | 0.026600821 | 125 | 118 | 108 | 221 | 191 | 177 |

# Table S4. Genes differentially expressed ABC_Hoxb9 Male vs ABC Male

| Gene | ENSEMBL_Gene_ID | baseMean | log2FoldChange | lfcSE | stat | pvalue | padj | 166836_Norma | 166838_Norma | 182098_Turq1 | 169229_Norma | 182083_Turq1 | 182086_Turq19 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nell2 | ENSMUSG00000022454 | 13.61191192 | 2.283414696 | 0.647390655 | 3.527104816 | 0.00042013 | 0.026722929 | 3 | 8 | 3 | 11 | 24 | 28 |
| Nuf2 | ENSMUSG00000026683 | 81.95103339 | 1.140469165 | 0.323889877 | 3.52116335 | 0.000429658 | 0.027234042 | 63 | 52 | 38 | 82 | 131 | 125 |
| Bcl2 | ENSMUSG00000057329 | 468.7333698 | -0.571779987 | 0.162802988 | -3.51209761 | 0.000444585 | 0.028082676 | 610 | 529 | 542 | 385 | 392 | 354 |
| Prr5 | ENSMUSG00000036106 | 164.6942232 | -0.834666144 | 0.237868612 | -3.50893772 | 0.0004499 | 0.028409887 | 179 | 192 | 262 | 117 | 117 | 122 |
| Dusp14 | ENSMUSG00000018648 | 244.0798448 | 1.017915861 | 0.290237444 | 3.507483102 | 0.00452877 | 0.028409887 | 134 | 154 | 197 | 245 | 299 | 436 |
| Spry1 | ENSMUSG00000037211 | 947.0523941 | -0.554648395 | 0.158275488 | -3.504322756 | 0.00045777 | 0.028618475 | 1119 | 1232 | 1029 | 796 | 792 | 714 |
| Slc29a1 | ENSMUSG00000023942 | 2721.780601 | -0.654796013 | 0.187242401 | -3.497004857 | 0.000470434 | 0.029296947 | 3251 | 3928 | 2808 | 2251 | 2127 | 1965 |
| Mlxipl | ENSMUSG00000005373 | 60.79210579 | -1.017836953 | 0.291195833 | -3.495369227 | 0.000473406 | 0.029296947 | 82 | 92 | 71 | 38 | 47 | 36 |
| Syn2 | ENSMUSG00000009394 | 98.57744984 | -0.964846232 | 0.276036949 | -3.495351748 | 0.000473437 | 0.029296947 | 161 | 122 | 108 | 78 | 59 | 64 |
| Cd55 | ENSMUSG00000026399 | 111.840714 | -1.623283819 | 0.464812527 | -3.492340947 | 0.000478807 | 0.029529106 | 195 | 75 | 237 | 45 | 40 | 80 |
| Colec12 | ENSMUSG00000036103 | 873.3304301 | -0.490763072 | 0.140767221 | -3.486344835 | 0.000489669 | 0.030097354 | 1015 | 1076 | 970 | 707 | 726 | 745 |
| Akr1b7 | ENSMUSG00000052131 | 8573.060795 | -0.909560066 | 0.261100182 | -3.483567343 | 0.000494779 | 0.030149578 | 10965 | 14517 | 8086 | 5885 | 5022 | 6963 |
| Utp18 | ENSMUSG00000054079 | 639.3703159 | 0.502137816 | 0.144261483 | 3.48074764 | 0.000500016 | 0.030149578 | 519 | 513 | 557 | 758 | 725 | 766 |
| Hand1 | ENSMUSG00000037335 | 91.16387527 | -1.57388594 | 0.452172477 | -3.480720348 | 0.000500067 | 0.030149578 | 146 | 64 | 200 | 30 | 50 | 57 |
| Nptx1 | ENSMUSG00000025582 | 68.23170099 | -1.55352757 | 0.446357496 | -3.480455876 | 0.000500561 | 0.030149578 | 146 | 89 | 71 | 55 | 28 | 21 |
| Smad6 | ENSMUSG00000036867 | 224.7208814 | -0.61200645 | 0.175866017 | -3.479958538 | 0.000501491 | 0.030149578 | 258 | 278 | 279 | 181 | 172 | 180 |
| Cdk5rap2 | ENSMUSG00000039298 | 3280.344347 | 0.44560483 | 0.128062702 | 3.47958323 | 0.000502194 | 0.030149578 | 2699 | 2708 | 2926 | 3789 | 3888 | 3672 |
| A730017C20Rik | ENSMUSG00000050875 | 69.50165731 | -0.930487092 | 0.267438293 | -3.479259017 | 0.000502802 | 0.030149578 | 83 | 88 | 103 | 50 | 44 | 50 |
| Kif11 | ENSMUSG00000012443 | 77.36950602 | 1.158681146 | 0.333156437 | 3.47788911 | 0.000505379 | 0.030149578 | 69 | 42 | 32 | 109 | 113 | 99 |
| Ncapg | ENSMUSG00000015880 | 38.86786156 | 1.471402227 | 0.423259075 | 3.476430694 | 0.000508264 | 0.030149578 | 32 | 17 | 13 | 47 | 58 | 67 |
| Phox2a | ENSMUSG00000079046 | 88.09303764 | -1.355275759 | 0.389867473 | -3.476247317 | 0.000508483 | 0.030149578 | 133 | 77 | 170 | 36 | 45 | 68 |
| Tshz2 | ENSMUSG00000047907 | 1678.800815 | -0.68503661 | 0.19706818 | -3.476140144 | 0.000508686 | 0.030149578 | 1967 | 2467 | 1776 | 1444 | 1219 | 1201 |
| Sh3bp5 | ENSMUSG00000021892 | 1436.020814 | -0.480246356 | 0.138233521 | -3.474167139 | 0.000512442 | 0.030224382 | 1603 | 1711 | 1705 | 1137 | 1275 | 1185 |
| Resp18 | ENSMUSG00000033061 | 165.9197902 | -1.408043716 | 0.405339514 | -3.473739095 | 0.00051326 | 0.030224382 | 231 | 158 | 335 | 53 | 84 | 135 |
| Hand2 | ENSMUSG00000038193 | 200.1790172 | -1.542684988 | 0.444301109 | -3.472161012 | 0.000516287 | 0.030243509 | 268 | 158 | 469 | 62 | 99 | 146 |
| Aunip | ENSMUSG00000078521 | 40.59140912 | 1.432524602 | 0.412612122 | 3.471843226 | 0.000516898 | 0.030243509 | 17 | 21 | 28 | 39 | 59 | 79 |
| Slc35d3 | ENSMUSG00000050473 | 69.28962292 | -1.287917397 | 0.371834442 | -3.463685044 | 0.00053283 | 0.031076074 | 100 | 69 | 126 | 43 | 26 | 51 |
| 1500015O10Rik | ENSMUSG00000026051 | 4188.267013 | 1.419620717 | 0.410088025 | 3.461746333 | 0.000536683 | 0.031201093 | 1991 | 2558 | 2289 | 3275 | 4290 | 10727 |
| Met | ENSMUSG00000009376 | 73.12490383 | -1.266246211 | 0.386271548 | -3.457124143 | 0.000545973 | 0.031640451 | 132 | 102 | 77 | 29 | 59 | 41 |
| Iqsec3 | ENSMUSG00000040797 | 39.95733316 | -1.390605471 | 0.402564127 | -3.454370064 | 0.00055158 | 0.031864214 | 83 | 48 | 42 | 21 | 21 | 24 |
| Nsg2 | ENSMUSG00000020297 | 97.3894001 | -1.088555016 | 0.315393558 | -3.451418038 | 0.000557649 | 0.032070023 | 147 | 101 | 150 | 45 | 63 | 79 |
| Gars | ENSMUSG00000029777 | 4635.864874 | -0.466222678 | 0.135100546 | -3.450931127 | 0.000558656 | 0.032070023 | 5758 | 5080 | 5297 | 3747 | 3878 | 4054 |
| Armcx4 | ENSMUSG00000049804 | 360.8250109 | -1.093167523 | 0.317013344 | -3.448332835 | 0.000564058 | 0.032278645 | 642 | 542 | 289 | 253 | 241 | 198 |
| Gm10644 | ENSMUSG00000074219 | 29.08878472 | -1.409587022 | 0.409247807 | -3.444336164 | 0.000572463 | 0.032657252 | 49 | 40 | 37 | 22 | 13 | 14 |
| Phox2b | ENSMUSG00000012520 | 68.01926807 | -1.068556228 | 0.310520021 | -3.44118304 | 0.000579177 | 0.032937286 | 118 | 84 | 75 | 48 | 47 | 38 |
| Adcy8 | ENSMUSG00000022376 | 92.45511696 | -1.574900999 | 0.458354198 | -3.435991217 | 0.00059039 | 0.033344955 | 146 | 175 | 94 | 80 | 24 | 36 |
| Necab3 | ENSMUSG00000027489 | 22.08095154 | 1.650535451 | 0.480454005 | 3.435366203 | 0.000591754 | 0.033344955 | 9 | 8 | 15 | 42 | 28 | 30 |
| Epha8 | ENSMUSG00000028661 | 23.74348406 | 1.849170855 | 0.538279865 | 3.435333504 | 0.000591825 | 0.033344955 | 11 | 8 | 12 | 31 | 58 | 22 |
| Guca1b | ENSMUSG00000023979 | 76.18577868 | -1.328464587 | 0.387722737 | -3.426326236 | 0.000611805 | 0.03436462 | 152 | 109 | 66 | 54 | 44 | 33 |
| Gm14519 | ENSMUSG00000082838 | 126.0752393 | 0.798930055 | 0.233577721 | 3.420403507 | 0.000625283 | 0.035006359 | 86 | 109 | 81 | 171 | 162 | 148 |
| Inmt | ENSMUSG00000003271 | 38.8225443 | -1.26867365 | 0.37099743 | -3.419629214 | 0.000627065 | 0.035006359 | 69 | 50 | 45 | 25 | 17 | 26 |
| Col4a5 | ENSMUSG00000031274 | 438.8534776 | -0.986248177 | 0.28864408 | -3.416827917 | 0.000633553 | 0.035135728 | 794 | 548 | 407 | 339 | 294 | 250 |
| Pdgfrl | ENSMUSG00000031595 | 113.6037061 | -0.838010651 | 0.24527571 | -3.416606771 | 0.000634068 | 0.035135728 | 140 | 143 | 154 | 87 | 64 | 94 |
| Antxr2 | ENSMUSG00000029338 | 1545.204258 | -0.697510279 | 0.204180853 | -3.416139518 | 0.000635167 | 0.035135728 | 2200 | 2034 | 1500 | 1207 | 1249 | 1081 |
| Ncaph | ENSMUSG00000034906 | 93.90602917 | 0.910847209 | 0.266859973 | 3.413202804 | 0.000642041 | 0.035409264 | 75 | 52 | 69 | 105 | 127 | 136 |
| Get4 | ENSMUSG00000025858 | 2442.791016 | -0.447955161 | 0.131360352 | -3.410124541 | 0.000649332 | 0.035626261 | 2961 | 2750 | 2746 | 2136 | 1974 | 2090 |
| Gpr55 | ENSMUSG00000049608 | 296.214638 | 0.938693834 | 0.275381808 | 3.409318532 | 0.000651254 | 0.035626261 | 231 | 247 | 131 | 376 | 372 | 420 |
| Gm21781 | ENSMUSG00000095123 | 102.5744931 | 0.944872341 | 0.277163685 | 3.409076993 | 0.000651831 | 0.035626261 | 87 | 64 | 59 | 111 | 156 | 138 |
| 9530077C05Rik | ENSMUSG00000036411 | 217.536501 | -0.693344812 | 0.20359524 | -3.405506001 | 0.000660416 | 0.035987723 | 243 | 261 | 302 | 172 | 148 | 179 |
| Prc1 | ENSMUSG00000038943 | 168.2720505 | 1.025376904 | 0.302098913 | 3.394176073 | 0.000688354 | 0.03739853 | 138 | 128 | 67 | 219 | 224 | 233 |
| Scg5 | ENSMUSG00000023236 | 110.2920724 | -1.003666853 | 0.295840031 | -3.392599872 | 0.000692327 | 0.037438817 | 169 | 108 | 164 | 68 | 61 | 91 |
| Gatm | ENSMUSG00000027199 | 286.7730806 | -0.851599815 | 0.251042351 | -3.392255575 | 0.000693197 | 0.037438817 | 336 | 483 | 288 | 211 | 192 | 210 |
| Lynx1 | ENSMUSG00000022594 | 5861.881691 | -0.973976888 | 0.287428105 | -3.388593087 | 0.000702522 | 0.037728555 | 9207 | 9175 | 4924 | 4774 | 3601 | 3490 |
| Klf15 | ENSMUSG00000030087 | 475.1878637 | -0.774197089 | 0.228476117 | -3.388525233 | 0.000702696 | 0.037728555 | 500 | 532 | 767 | 375 | 343 | 335 |
| Nek2 | ENSMUSG00000026222 | 75.56922442 | 1.067293405 | 0.315601955 | 3.38177058 | 0.000720203 | 0.038479467 | 61 | 54 | 31 | 109 | 94 | 104 |
| Crabp1 | ENSMUSG00000032291 | 33.5064764 | -1.329660683 | 0.393306531 | -3.380723632 | 0.000722952 | 0.038479467 | 42 | 39 | 63 | 16 | 21 | 20 |
| Wnk2 | ENSMUSG00000037989 | 255.1720623 | 1.076091597 | 0.318304041 | 3.380703533 | 0.000723005 | 0.038479467 | 151 | 231 | 111 | 418 | 347 | 274 |
| Clstn3 | ENSMUSG00000008153 | 147.3542931 | 0.889775162 | 0.263281531 | 3.37955784 | 0.000726025 | 0.038549 | 125 | 109 | 76 | 169 | 213 | 193 |
| Wnt6 | ENSMUSG00000033227 | 230.8433165 | -1.034985636 | 0.306768919 | -3.37382822 | 0.000741306 | 0.039146524 | 320 | 385 | 226 | 107 | 190 | 157 |
| Ehd2 | ENSMUSG00000074364 | 2054.028249 | -0.553140756 | 0.16396249 | -3.373581081 | 0.000741972 | 0.039146524 | 2570 | 2666 | 2093 | 1607 | 1704 | 1684 |
| Igsf3 | ENSMUSG00000042035 | 665.2679837 | -0.598565631 | 0.17783321 | -3.365882179 | 0.000762993 | 0.040139584 | 908 | 777 | 719 | 577 | 518 | 493 |
| Slc16a2 | ENSMUSG00000031748 | 1021.203823 | -0.691146979 | 0.2058617 | -3.357336394 | 0.000787065 | 0.041282162 | 1480 | 1188 | 1116 | 837 | 856 | 650 |
| Cep85 | ENSMUSG00000037443 | 346.9467243 | 1.179983852 | 0.351913433 | 3.353051463 | 0.000799258 | 0.041745969 | 269 | 234 | 135 | 301 | 607 | 536 |
| Fstl3 | ENSMUSG00000022025 | 262.7154706 | -0.850355507 | 0.253636036 | -3.35266045 | 0.000800388 | 0.041745969 | 272 | 440 | 302 | 196 | 201 | 166 |
| Rab39b | ENSMUSG00000031202 | 70.64140472 | -1.034501303 | 0.309230329 | -3.345406986 | 0.000821619 | 0.042731217 | 104 | 110 | 71 | 39 | 46 | 54 |
| Sgsm1 | ENSMUSG00000042216 | 55.40361214 | -1.17734905 | 0.352060756 | -3.344164404 | 0.000825308 | 0.042801136 | 104 | 64 | 63 | 34 | 40 | 28 |
| Tk1 | ENSMUSG00000025554 | 76.38705687 | 1.217997085 | 0.364941293 | 3.337515126 | 0.000845311 | 0.043714323 | 61 | 31 | 46 | 79 | 102 | 140 |
| Hoxc5 | ENSMUSG00000022485 | 181.7899307 | -0.807079908 | 0.241900626 | -3.336411 | 0.00848676 | 0.04376435 | 201 | 216 | 277 | 148 | 140 | 109 |
| Me1 | ENSMUSG00000032418 | 31551.28546 | -0.485930698 | 0.145698292 | -3.335184583 | 0.000852428 | 0.043840007 | 35974 | 38107 | 36365 | 29261 | 25318 | 24284 |
| Cplx1 | ENSMUSG00000033615 | 42.91110991 | -1.3840753 | 0.41591056 | -3.32781957 | 0.000875285 | 0.044882961 | 63 | 82 | 41 | 27 | 16 | 29 |
| Tbx20 | ENSMUSG00000031965 | 61.51433865 | -1.134772696 | 0.341277864 | -3.325069728 | 0.000883964 | 0.045168247 | 113 | 61 | 80 | 34 | 38 | 43 |
| Asic4 | ENSMUSG00000033007 | 32.04524737 | -1.34355914 | 0.404139671 | -3.324492092 | 0.000885797 | 0.045168247 | 44 | 34 | 60 | 17 | 19 | 18 |
| Sept6 | ENSMUSG00000050379 | 794.993808 | 0.46163409 | 0.138955174 | 3.322179918 | 0.000893171 | 0.045292297 | 682 | 687 | 637 | 906 | 913 | 945 |
| Tmem130 | ENSMUSG00000043388 | 87.56806649 | -0.997593985 | 0.300283559 | -3.322173179 | 0.000893192 | 0.045292297 | 148 | 102 | 101 | 46 | 62 | 68 |
| Acot2 | ENSMUSG00000021226 | 281.658112 | -0.630260099 | 0.189794631 | -3.320795186 | 0.000897614 | 0.045390416 | 311 | 341 | 375 | 199 | 222 | 242 |
| Clspn | ENSMUSG00000042489 | 35.27511195 | 1.307023474 | 0.393788105 | 3.319103492 | 0.00090307 | 0.04554015 | 28 | 15 | 18 | 57 | 41 | 53 |
| Dpep1 | ENSMUSG00000019278 | 634.8936786 | -0.742600922 | 0.223902005 | -3.316633636 | 0.000911109 | 0.046000897 | 780 | 968 | 636 | 411 | 501 | 513 |
| Aass | ENSMUSG00000029695 | 32.01398893 | -1.6179263 | 0.488098812 | -3.314751564 | 0.000917246 | 0.046000897 | 46 | 34 | 65 | 9 | 25 | 13 |
| Abca5 | ENSMUSG00000018800 | 262.9986447 | -1.336083207 | 0.40341701 | -3.311915897 | 0.000926594 | 0.046263456 | 498 | 464 | 168 | 173 | 159 | 116 |
| Cartpt | ENSMUSG00000021647 | 59.96831123 | -2.078704103 | 0.627698668 | -3.311627393 | 0.00092755 | 0.046263456 | 79 | 30 | 182 | 18 | 16 | 36 |
| Btg1 | ENSMUSG00000036478 | 3447.653727 | 0.904419178 | 0.273213949 | 3.310296496 | 0.000931972 | 0.046263456 | 1784 | 2222 | 3197 | 3734 | 4248 | 5501 |
| Maf | ENSMUSG00000055435 | 941.5897672 | 0.57739252 | 0.174486322 | 3.309099028 | 0.00093967 | 0.046629571 | 711 | 750 | 806 | 1034 | 1048 | 1301 |
| Kctd14 | ENSMUSG00000051727 | 184.9645915 | -1.126259844 | 0.340688589 | -3.305833777 | 0.000946942 | 0.046846706 | 176 | 199 | 386 | 123 | 121 | 104 |
| Sel1l3 | ENSMUSG00000029189 | 271.4631924 | 1.019383438 | 0.308581808 | 3.303446321 | 0.000955043 | 0.047050672 | 190 | 110 | 238 | 324 | 425 | 341 |
| Dync1i1 | ENSMUSG00000029757 | 66.09248706 | -1.510702336 | 0.45743677 | -3.302538043 | 0.000958141 | 0.047050672 | 166 | 61 | 67 | 36 | 40 | 27 |
| Vasn | ENSMUSG00000039646 | 241.538194 | -0.640405418 | 0.193924392 | -3.302345885 | 0.000958798 | 0.047050672 | 278 | 300 | 306 | 180 | 217 | 170 |
| Spock1 | ENSMUSG00000056222 | 61.91828175 | -1.392395894 | 0.421933769 | -3.30003426 | 0.00096673 | 0.047312764 | 134 | 84 | 51 | 27 | 43 | 33 |
| Rgl1 | ENSMUSG00000026482 | 836.9410854 | -0.603175345 | 0.182990956 | -3.296203035 | 0.00098012 | 0.047834524 | 1042 | 1112 | 874 | 681 | 723 | 589 |
| Gucy1a3 | ENSMUSG00000033910 | 574.4009867 | -0.979309212 | 0.297251224 | -3.294550643 | 0.000985792 | 0.047988345 | 624 | 547 | 1116 | 379 | 403 | 378 |
| Dtx1 | ENSMUSG00000029603 | 744.0286305 | -0.633677776 | 0.192400539 | -3.293534314 | 0.000989363 | 0.048040843 | 1079 | 827 | 809 | 535 | 613 | 602 |
| Scx | ENSMUSG00000034161 | 602.564982 | -1.227580647 | 0.372933576 | -3.291687111 | 0.000995883 | 0.048222419 | 672 | 572 | 1290 | 261 | 320 | 501 |
| Sidt1 | ENSMUSG00000022696 | 45.72023134 | -1.341397404 | 0.40768545 | -3.290275389 | 0.001000894 | 0.048490586 | 92 | 53 | 51 | 35 | 19 | 23 |
| Il11ra1 | ENSMUSG00000073889 | 1325.884139 | -0.475465707 | 0.144696461 | -3.285952563 | 0.001016381 | 0.04895525 | 1404 | 1580 | 1643 | 1108 | 1091 | 1128 |
| Napepld | ENSMUSG00000044968 | 1438.374367 | 0.716556561 | 0.218339985 | 3.281838464 | 0.001031327 | 0.049531161 | 1011 | 1309 | 945 | 2098 | 1765 | 1502 |
| Tmem221 | ENSMUSG00000043664 | 178.0759265 | -1.006999706 | 0.30790796 | -3.270456885 | 0.001073739 | 0.051446475 | 179 | 216 | 319 | 148 | 115 | 93 |
| Rasl11b | ENSMUSG00000049907 | 1368.19941 | 0.591683537 | 0.180972572 | 3.269465259 | 0.00107755 | 0.051491987 | 1030 | 1180 | 1065 | 1374 | 1807 | 1753 |
| Cap2 | ENSMUSG00000021373 | 591.515574 | 0.829331115 | 0.253974119 | 3.265451854 | 0.001093035 | 0.052097518 | 492 | 432 | 355 | 556 | 924 | 791 |
| Slc25a22 | ENSMUSG00000019082 | 751.4514484 | 0.591417403 | 0.181392822 | 3.260423404 | 0.00111246 | 0.052779587 | 518 | 585 | 696 | 868 | 957 | 884 |
| Matn2 | ENSMUSG00000022324 | 424.8002674 | -0.688023603 | 0.211033785 | -3.260253335 | 0.00113127 | 0.052779587 | 584 | 470 | 519 | 262 | 346 | 368 |
| Nup88 | ENSMUSG00000040667 | 2172.674635 | 0.476088098 | 0.146261957 | 3.255037114 | 0.001133775 | 0.053446284 | 1855 | 1704 | 1893 | 2688 | 2582 | 2314 |
| Cdt1 | ENSMUSG00000006585 | 112.3390465 | 0.694711965 | 0.213440075 | 3.254833771 | 0.001134588 | 0.053446284 | 83 | 87 | 88 | 143 | 135 | 139 |
| Steap2 | ENSMUSG00000015653 | 10967.77663 | 0.913912757 | 0.280816179 | 3.254485744 | 0.001135971 | 0.053446284 | 8259 | 9435 | 5123 | 17713 | 13448 | 11829 |
| RP23-308E4.9 | ENSMUSG00000107568 | 84.50379391 | -0.866591901 | 0.266484443 | 3.251941805 | 0.001146195 | 0.053788656 | 53 | 66 | 60 | 125 | 112 | 91 |
| Slc30a2 | ENSMUSG00000032836 | 3078.378764 | -0.672352883 | 0.207048821 | -3.247335677 | 0.001164991 | 0.054530539 | 4430 | 3699 | 3220 | 2645 | 2605 | 2017 |
| Lgr5 | ENSMUSG00000020140 | 132.0893913 | -1.026777489 | 0.316769315 | -3.241404517 | 0.001189423 | 0.054663868 | 254 | 151 | 127 | 84 | 87 | 90 |
| Mtmr11 | ENSMUSG00000045934 | 672.1976013 | -0.666613106 | 0.205679714 | -3.241025048 | 0.001191007 | 0.055463868 | 999 | 692 | 783 | 473 | 545 | 541 |
| Prpf40b | ENSMUSG00000023007 | 604.4310571 | 0.480369579 | 0.148468688 | 3.235494207 | 0.001214323 | 0.056405779 | 539 | 502 | 474 | 716 | 696 | 700 |
| Mmd2 | ENSMUSG00000039533 | 387.3046457 | -1.731898603 | 0.535581742 | -3.233677454 | 0.001222074 | 0.056621723 | 722 | 742 | 322 | 85 | 351 | 101 |
| Arntl | ENSMUSG00000055116 | 328.809126 | -2.78614742 | 0.862417856 | -3.230623531 | 0.001235205 | 0.056976924 | 1194 | 409 | 120 | 76 | 96 | 78 |
| Fads3 | ENSMUSG00000024664 | 327.9514307 | -0.874320832 | 0.270650388 | -3.23044367 | 0.001235983 | 0.056976924 | 447 | 539 | 287 | 234 | 245 | 216 |
| Pla2g2f | ENSMUSG00000028749 | 461.0928548 | 1.196445579 | 0.370647565 | 3.227986715 | 0.001246648 | 0.05732381 | 269 | 396 | 175 | 538 | 463 | 925 |
| Dnajb9 | ENSMUSG00000014905 | 1952.157998 | -0.656517951 | 0.203822778 | -3.221023473 | 0.001277337 | 0.058383395 | 2092 | 2876 | 2198 | 1738 | 1413 | 1396 |
| Srcin1 | ENSMUSG00000038453 | 1049.355614 | -0.439405148 | 0.136422115 | -3.220923144 | 0.001277784 | 0.058383395 | 1230 | 1227 | 1167 | 935 | 879 | 859 |
| Jag1 | ENSMUSG00000027276 | 341.7516527 | -0.558649573 | 0.173504214 | -3.219804068 | 0.001282782 | 0.058383395 | 422 | 438 | 362 | 283 | 277 | 270 |
| Odf2 | ENSMUSG00000026790 | 1272.205217 | 0.546010941 | 0.169588389 | 3.219722106 | 0.001283149 | 0.058383395 | 1133 | 1029 | 941 | 1608 | 1589 | 1333 |
| Tet2 | ENSMUSG00000040943 | 1284.376006 | 0.711993963 | 0.221174061 | 3.219156714 | 0.001285682 | 0.058383395 | 1231 | 815 | 875 | 1420 | 1622 | 1744 |
| Ssc4d | ENSMUSG00000029699 | 553.4844018 | 1.697379349 | 0.527757693 | 3.216209582 | 0.001298959 | 0.058833395 | 142 | 105 | 535 | 789 | 1025 | 724 |
| Cndp2 | ENSMUSG00000024644 | 1559.564392 | 0.482893455 | 0.150461307 | 3.209419504 | 0.001330033 | 0.060098389 | 1176 | 1429 | 1298 | 1875 | 1788 | 1792 |
| Rab3b | ENSMUSG00000003411 | 97.75514943 | -1.088140072 | 0.33950002 | -3.205125206 | 0.001350047 | 0.060435694 | 159 | 82 | 158 | 58 | 55 | 74 |
| Cxx1c | ENSMUSG00000051851 | 972.4206512 | 0.660456214 | 0.206095615 | 3.204610711 | 0.001352453 | 0.060435694 | 676 | 760 | 825 | 979 | 1172 | 1422 |
| Diap2 | ENSMUSG00000034480 | 1084.025864 | -0.678617184 | 0.211775481 | -3.204418096 | 0.001353358 | 0.060435694 | 1479 | 1429 | 1095 | 958 | 843 | 700 |
| Gng3 | ENSMUSG00000071658 | 37.3594843 | -1.482023658 | 0.462545309 | -3.204061588 | 0.001355035 | 0.060435694 | 55 | 31 | 80 | 14 | 21 | 23 |
| Proca1 | ENSMUSG00000044122 | 129.4778096 | -0.848549016 | 0.264884548 | -3.203467407 | 0.001357834 | 0.060435694 | 139 | 149 | 212 | 100 | 82 | 95 |
| Scube1 | ENSMUSG00000016763 | 154.0113496 | -0.963322035 | 0.30072732 | -3.203307349 | 0.001358589 | 0.060435694 | 166 | 160 | 285 | 98 | 117 | 98 |
| Gsta3 | ENSMUSG00000025934 | 512.8735063 | -0.847501657 | 0.264607268 | -3.20286613 | 0.001360672 | 0.060435694 | 676 | 633 | 668 | 500 | 263 | 337 |
| Cenpa | ENSMUSG00000029177 | 89.42184452 | 1.091661351 | 0.341272589 | 3.198795875 | 0.001380268 | 0.061146648 | 63 | 62 | 46 | 82 | 117 | 167 |
| Ccdc92 | ENSMUSG00000037979 | 232.6839777 | 0.721822512 | 0.225756001 | 3.197356912 | 0.001386932 | 0.061216459 | 176 | 208 | 143 | 255 | 317 | 298 |
| Dgat2 | ENSMUSG00000030747 | 209.1468777 | 1.168741251 | 0.365566327 | 3.19707031 | 0.001388311 | 0.061216459 | 100 | 125 | 161 | 204 | 447 | 218 |
| Eya1 | ENSMUSG00000025932 | 42.11086384 | -1.110872664 | 0.348192841 | -3.1903949 | 0.001420785 | 0.062422135 | 65 | 46 | 62 | 23 | 33 | 24 |
| Gjc2 | ENSMUSG00000043448 | 47.41055649 | -1.019513855 | 0.319592036 | -3.190047745 | 0.001422493 | 0.062422135 | 53 | 70 | 68 | 31 | 36 | 27 |
| Cers4 | ENSMUSG00000008206 | 1498.293388 | -0.556335797 | 0.174534556 | -3.18753953 | 0.001434888 | 0.06281508 | 1757 | 1539 | 2055 | 1274 | 1170 | 1195 |
| Pcdh15 | ENSMUSG00000052613 | 22.77243325 | -1.7190338 | 0.539720257 | -3.185045916 | 0.00144731 | 0.063307301 | 54 | 29 | 22 | 14 | 10 | 8 |
| Ptpn7 | ENSMUSG00000031506 | 57.32514387 | -0.985999859 | 0.309683792 | -3.18389236 | 0.00145309 | 0.063330268 | 87 | 62 | 80 | 32 | 38 | 45 |
| Ank3 | ENSMUSG00000069601 | 103.4614686 | -0.755016742 | 0.237274143 | -3.182043912 | 0.001462396 | 0.063562017 | 131 | 137 | 122 | 69 | 72 | 90 |
| Lin9 | ENSMUSG00000058729 | 219.388108 | 0.588303944 | 0.185143896 | 3.177549765 | 0.001485252 | 0.064402078 | 165 | 180 | 180 | 285 | 244 | 262 |
| Vstm4 | ENSMUSG00000050066 | 1404.748128 | -0.46031167 | 0.144863519 | -3.176311555 | 0.001491607 | 0.064524358 | 1580 | 1539 | 1762 | 1177 | 1238 | 1133 |
| Slc27a6 | ENSMUSG00000024600 | 162.5107817 | -1.551854058 | 0.488740198 | -3.175212646 | 0.001497267 | 0.064616112 | 326 | 270 | 131 | 140 | 70 | 39 |
| Ramp1 | ENSMUSG00000034353 | 69.55992632 | -1.289199232 | 0.406877717 | -3.168517659 | 0.001532184 | 0.066281161 | 84 | 61 | 151 | 32 | 41 | 48 |
| Tlx2 | ENSMUSG00000063327 | 28.03054411 | -1.484030568 | 0.468628618 | -3.166751903 | 0.001541518 | 0.06621272 | 41 | 29 | 54 | 10 | 13 | 21 |
| Gcat | ENSMUSG00000026378 | 478.5084463 | -0.574067188 | 0.181372148 | -3.165134201 | 0.001550114 | 0.066281161 | 536 | 653 | 528 | 388 | 412 | 354 |
| Magt1 | ENSMUSG00000031232 | 1761.342598 | -0.723387819 | 0.228566753 | -3.164886451 | 0.001551435 | 0.066281161 | 2151 | 2721 | 1709 | 1494 | 1168 | 1324 |
| 5830444B04Rik | ENSMUSG00000084803 | 95.32042562 | -1.056726544 | 0.333941622 | -3.164005036 | 0.001554004 | 0.066281161 | 142 | 127 | 117 | 91 | 52 | 42 |
| Serpina5 | ENSMUSG00000041550 | 10.37133763 | 5.836319044 | 1.846537607 | 3.160682469 | 0.001574 | 0.066977545 | 1 | 0 | 0 | 1 | 59 | 1 |

# Table S4. Genes differentially expressed ABC_Hoxb9 Male vs ABC Male

| Gene | ENSEMBL_Gene_ID | baseMean | log2FoldChange | lfcSE | stat | pvalue | padj | Read count 166836_Norma | 166838_Norma | 182098_Turq19 | 169229_Norma | 182083_Turq19 | 182086_Turq19 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kcnq1 | ENSMUSG00000009545 | 116.3147942 | -0.802057493 | 0.253964108 | -3.158152931 | 0.001587722 | 0.067299806 | 141 | 171 | 131 | 87 | 98 | 69 |
| Sh2d4a | ENSMUSG00000053886 | 190.8689087 | -0.935704906 | 0.296303405 | -3.157928292 | 0.001588946 | 0.067299806 | 314 | 279 | 159 | 140 | 126 | 127 |
| Ckap2l | ENSMUSG00000048327 | 72.49704332 | 1.037498647 | 0.328763915 | 3.155755848 | 0.001600828 | 0.067585075 | 61 | 50 | 31 | 95 | 84 | 114 |
| Gm6665 | ENSMUSG00000091561 | 419.184502 | -0.810904844 | 0.256994064 | -3.155344649 | 0.001603086 | 0.067585075 | 485 | 423 | 695 | 264 | 293 | 356 |
| Chd1 | ENSMUSG00000023852 | 2851.62008 | 0.559219325 | 0.17747365 | 3.150999176 | 0.001627129 | 0.068415904 | 2262 | 2468 | 2187 | 3986 | 3201 | 3005 |
| Kif20a | ENSMUSG00000003779 | 156.6086389 | 1.024186009 | 0.325093768 | 3.150432616 | 0.001630289 | 0.068415904 | 134 | 115 | 60 | 197 | 188 | 245 |
| Gm4980 | ENSMUSG00000096606 | 1371.863761 | -0.814338894 | 0.258755164 | -3.147140641 | 0.001648756 | 0.06875129 | 2178 | 1812 | 1257 | 1140 | 816 | 1028 |
| Dtx4 | ENSMUSG00000039982 | 406.4411044 | -0.863187192 | 0.27429036 | -3.146983336 | 0.001649644 | 0.06875129 | 684 | 531 | 358 | 265 | 320 | 280 |
| Cadm1 | ENSMUSG00000032076 | 1312.717482 | 0.509003997 | 0.161748964 | 3.146876403 | 0.001650247 | 0.06875129 | 1110 | 1008 | 1132 | 1462 | 1733 | 1430 |
| Stmn1 | ENSMUSG00000028832 | 558.8057251 | 0.76784998 | 0.244097832 | 3.145664891 | 0.001657098 | 0.06875129 | 376 | 357 | 508 | 652 | 589 | 871 |
| Gm10038 | ENSMUSG00000058281 | 9.40749792 | 2.220378256 | 0.705853946 | 3.145662454 | 0.001657111 | 0.06875129 | 5 | 3 | 2 | 16 | 14 | 17 |
| Nova1 | ENSMUSG00000021047 | 142.2760962 | -0.949480859 | 0.301910627 | -3.144907052 | 0.001661396 | 0.068772755 | 157 | 162 | 244 | 90 | 77 | 124 |
| Unc5c | ENSMUSG00000059921 | 39.23919115 | -1.245444395 | 0.396176427 | -3.143661027 | 0.001668486 | 0.068844244 | 72 | 43 | 50 | 16 | 27 | 27 |
| C7 | ENSMUSG00000079105 | 327.1272933 | -1.569649821 | 0.499367016 | -3.143278929 | 0.001670666 | 0.068844244 | 757 | 574 | 137 | 167 | 159 | 169 |
| Ampd3 | ENSMUSG00000005686 | 483.3639867 | -0.674553572 | 0.214854799 | -3.139578805 | 0.001691909 | 0.069418024 | 557 | 501 | 726 | 345 | 414 | 359 |
| Tia1 | ENSMUSG00000071337 | 581.6717161 | 0.580307543 | 0.184874868 | 3.138920662 | 0.001695714 | 0.069418024 | 553 | 427 | 419 | 674 | 699 | 718 |
| Gstm7 | ENSMUSG00000004035 | 789.8977761 | -0.592606859 | 0.188809595 | -3.138648016 | 0.001697292 | 0.069418024 | 888 | 855 | 1107 | 560 | 676 | 654 |
| Grb14 | ENSMUSG00000026888 | 1388.92635 | 0.874278577 | 0.278591023 | 3.138215178 | 0.0016998 | 0.069418024 | 999 | 764 | 1179 | 1233 | 2124 | 2035 |
| Prr16 | ENSMUSG00000073565 | 280.0366035 | 0.915500518 | 0.291905294 | 3.136292958 | 0.001710982 | 0.069589349 | 166 | 233 | 184 | 504 | 314 | 281 |
| Osbpl6 | ENSMUSG00000042359 | 151.3663739 | -0.965462596 | 0.307846318 | -3.136183674 | 0.001711162 | 0.069589349 | 242 | 231 | 128 | 119 | 95 | 94 |
| Gm43843 | ENSMUSG00000106944 | 97.60850072 | 0.866750797 | 0.27660699 | 3.133510097 | 0.00172729 | 0.069823582 | 89 | 64 | 54 | 118 | 120 | 140 |
| Pon2 | ENSMUSG00000032667 | 1884.132818 | -0.621646421 | 0.198394051 | -3.13339244 | 0.001727982 | 0.069823582 | 2449 | 2443 | 1959 | 1756 | 1396 | 1301 |
| Pon3 | ENSMUSG00000029759 | 533.5014818 | -0.968221194 | 0.309015558 | -3.133244165 | 0.001728856 | 0.069823582 | 1012 | 659 | 447 | 385 | 367 | 331 |
| Rps6ka1 | ENSMUSG00000003644 | 599.8237356 | 0.604560801 | 0.193096994 | 3.130865941 | 0.001742917 | 0.070236093 | 514 | 486 | 429 | 606 | 752 | 813 |
| Rbfox3 | ENSMUSG00000025576 | 190.1138685 | 1.078657383 | 0.344644214 | 3.129770757 | 0.001749428 | 0.070343177 | 83 | 114 | 169 | 181 | 260 | 333 |
| Mal2 | ENSMUSG00000024479 | 248.5818119 | -1.336734407 | 0.427580655 | -3.126274287 | 0.001770363 | 0.071028539 | 297 | 389 | 382 | 242 | 116 | 66 |
| Cenpm | ENSMUSG00000068101 | 24.58861117 | 1.286833928 | 0.412172853 | 3.122086455 | 0.001795742 | 0.071741626 | 14 | 14 | 15 | 32 | 31 | 41 |
| Vat1l | ENSMUSG00000046844 | 84.6656803 | -1.141334252 | 0.365572685 | -3.122044667 | 0.001795997 | 0.071741626 | 175 | 78 | 97 | 56 | 54 | 48 |
| Gm13889 | ENSMUSG00000087006 | 321.2493408 | -1.081680229 | 0.347053315 | -3.116755213 | 0.001828533 | 0.072793456 | 332 | 331 | 646 | 152 | 199 | 267 |
| Cdca3 | ENSMUSG00000023505 | 97.80415825 | 0.990097468 | 0.317699155 | 3.116462387 | 0.00183035 | 0.072793456 | 78 | 57 | 62 | 96 | 118 | 176 |
| Lrrn3 | ENSMUSG00000036295 | 2654.602278 | 0.624321934 | 0.200371107 | 3.115828139 | 0.001834291 | 0.072793456 | 2123 | 2428 | 1715 | 3561 | 3268 | 2831 |
| Sema3b | ENSMUSG00000057969 | 140.8628266 | -0.668449887 | 0.214734982 | -3.112906344 | 0.001852548 | 0.073358488 | 159 | 177 | 182 | 108 | 121 | 97 |
| Gm10561 | ENSMUSG00000097649 | 202.6012222 | -0.793740801 | 0.255139721 | -3.110044428 | 0.001864521 | 0.073660999 | 215 | 241 | 315 | 160 | 117 | 167 |
| Nsg1 | ENSMUSG00000029126 | 227.1705061 | -0.760569108 | 0.244523491 | -3.110413254 | 0.001868258 | 0.073660999 | 283 | 228 | 347 | 143 | 188 | 175 |
| Gm43858 | ENSMUSG00000104546 | 25.9689143 | 1.257628255 | 0.404594721 | 3.108365454 | 0.001881253 | 0.07392814 | 15 | 12 | 19 | 37 | 38 | 35 |
| Sult4a1 | ENSMUSG00000018865 | 35.68150072 | -1.094986167 | 0.352304181 | -3.108070318 | 0.001883133 | 0.07392814 | 51 | 39 | 55 | 23 | 23 | 22 |
| Sdr9c7 | ENSMUSG00000040127 | 33.01877707 | -1.356960253 | 0.436813634 | -3.106497023 | 0.001893182 | 0.074163176 | 58 | 55 | 29 | 24 | 15 | 17 |
| Nfkbid | ENSMUSG00000036931 | 20.15020201 | 1.418001109 | 0.456589055 | 3.105639733 | 0.001898679 | 0.074219236 | 10 | 11 | 12 | 29 | 24 | 35 |
| Aspm | ENSMUSG00000033952 | 71.82439524 | 1.205365975 | 0.388443211 | 3.103068715 | 0.001915252 | 0.074707092 | 55 | 54 | 21 | 85 | 102 | 114 |
| Cenpf | ENSMUSG00000026605 | 173.6806586 | 0.954891266 | 0.308312697 | 3.09715194 | 0.001953897 | 0.075921734 | 157 | 126 | 72 | 216 | 224 | 247 |
| Gbp2b | ENSMUSG00000040264 | 83.05693929 | -3.804826358 | 1.228508755 | -3.097028755 | 0.001954709 | 0.075921734 | 171 | 8 | 286 | 5 | 16 | 13 |
| Prkar2b | ENSMUSG00000029977 | 3069.337866 | -0.617605383 | 0.199461575 | -3.096362711 | 0.001959106 | 0.07593094 | 3664 | 4436 | 3049 | 2629 | 2205 | 2433 |
| Spry2 | ENSMUSG00000022114 | 845.4589748 | 0.466681344 | 0.15081185 | 3.09446071 | 0.00197171 | 0.076257574 | 663 | 689 | 777 | 956 | 1014 | 973 |
| Rassf7 | ENSMUSG00000038618 | 142.364921 | -0.725097759 | 0.234398801 | -3.093436298 | 0.00197853 | 0.076359555 | 187 | 201 | 144 | 117 | 104 | 101 |
| Zbtb42 | ENSMUSG00000037638 | 145.37386 | -1.00742618 | 0.325792779 | -3.092229918 | 0.001986589 | 0.076440362 | 179 | 258 | 145 | 128 | 87 | 74 |
| A730046J19Rik | ENSMUSG00000085139 | 45.24189541 | -1.340559694 | 0.433575686 | -3.091870089 | 0.001988999 | 0.076440362 | 100 | 44 | 50 | 20 | 30 | 27 |
| Tril | ENSMUSG00000043496 | 586.6500862 | -0.7738647 | 0.250405723 | -3.090443338 | 0.001998579 | 0.076647197 | 905 | 752 | 564 | 445 | 502 | 352 |
| Rimbp2 | ENSMUSG00000029420 | 19.7610431 | -1.576165821 | 0.510501369 | -3.087485984 | 0.002018573 | 0.077251674 | 41 | 28 | 20 | 12 | 9 | 9 |
| Twist1 | ENSMUSG00000035799 | 355.4292032 | 1.38765981 | 0.44969006 | 3.085813839 | 0.002029959 | 0.077524888 | 128 | 127 | 335 | 318 | 475 | 750 |
| Ildr2 | ENSMUSG00000040612 | 254.9712438 | -1.350665547 | 0.438390651 | -3.080963389 | 0.00206332 | 0.078587487 | 489 | 472 | 138 | 169 | 140 | 122 |
| Sdf2l1 | ENSMUSG00000022769 | 550.3119691 | -0.687412437 | 0.223148157 | -3.080520336 | 0.002066392 | 0.078587487 | 627 | 786 | 624 | 365 | 379 | 521 |
| Pim1 | ENSMUSG00000024014 | 742.7542754 | 0.266909026 | 0.086607712 | 3.073769254 | 0.002113729 | 0.080220611 | 433 | 635 | 545 | 1251 | 756 | 836 |
| Ankrd9 | ENSMUSG00000037904 | 209.5628369 | 0.68466335 | 0.223213241 | 3.06730617 | 0.002159975 | 0.08180569 | 136 | 150 | 197 | 255 | 243 | 278 |
| Gpr22 | ENSMUSG00000044067 | 33.04902264 | -1.292446566 | 0.421588226 | -3.065660959 | 0.002171894 | 0.082086816 | 66 | 34 | 40 | 22 | 16 | 20 |
| Prrt1 | ENSMUSG00000015476 | 114.6618428 | -0.945941996 | 0.308893738 | -3.062354075 | 0.002196035 | 0.082827733 | 129 | 113 | 211 | 72 | 81 | 82 |
| Clybl | ENSMUSG00000025545 | 336.160445 | 0.528260617 | 0.172538932 | 3.061689383 | 0.002200917 | 0.082820706 | 275 | 280 | 271 | 389 | 363 | 439 |
| Slc2a1 | ENSMUSG00000028645 | 1081.289691 | -0.504800047 | 0.165137889 | -3.056839656 | 0.002236839 | 0.084019537 | 1294 | 1235 | 1276 | 1027 | 840 | 816 |
| Arhgef2 | ENSMUSG00000028059 | 528.9286835 | -0.558558248 | 0.182864344 | -3.05449513 | 0.002254397 | 0.084505159 | 700 | 661 | 528 | 437 | 429 | 418 |
| Col4a6 | ENSMUSG00000031273 | 40.20626289 | -1.531630573 | 0.501719796 | -3.052760893 | 0.002267465 | 0.084744166 | 91 | 59 | 29 | 14 | 28 | 19 |
| Btnl9 | ENSMUSG00000040283 | 1606.910473 | -0.495539984 | 0.162343422 | -3.052418011 | 0.002270057 | 0.084744166 | 1744 | 2145 | 1752 | 1285 | 1395 | 1320 |
| Far2 | ENSMUSG00000030303 | 295.7941843 | 0.940882526 | 0.30848978 | 3.049963357 | 0.002288693 | 0.085265487 | 156 | 158 | 294 | 328 | 385 | 454 |
| Gm84989 | ENSMUSG00000054989 | 16.95629486 | 1.548212581 | 0.508036404 | 3.047444176 | 0.002307964 | 0.085775618 | 11 | 7 | 8 | 20 | 27 | 29 |
| Unc80 | ENSMUSG00000055567 | 59.71456497 | -1.388013663 | 0.455542421 | -3.046947178 | 0.002311783 | 0.085775618 | 142 | 72 | 45 | 35 | 36 | 28 |
| Clmp | ENSMUSG00000032024 | 97.52784634 | -1.06506613 | 0.349758989 | -3.045142977 | 0.002325697 | 0.08611684 | 105 | 99 | 193 | 52 | 63 | 74 |
| Galnt14 | ENSMUSG00000024064 | 13.49060925 | -1.815997785 | 0.596827796 | -3.042750014 | 0.00234427 | 0.086582311 | 22 | 15 | 26 | 8 | 6 | 4 |
| Aldh18a1 | ENSMUSG00000025007 | 587.8030768 | -0.604322749 | 0.19863989 | -3.042303085 | 0.002347754 | 0.086582311 | 746 | 797 | 584 | 417 | 498 | 484 |
| Fdx1 | ENSMUSG00000032051 | 5113.002774 | 0.874723039 | 0.287617407 | 3.04127295 | 0.002355802 | 0.086601498 | 2635 | 4238 | 3953 | 6225 | 4866 | 8761 |
| Kazald1 | ENSMUSG00000025213 | 183.774416 | -1.257552075 | 0.413532297 | -3.041000869 | 0.002357932 | 0.086601498 | 165 | 232 | 381 | 78 | 81 | 167 |
| Dlgap1 | ENSMUSG00000003279 | 1546.16042 | -0.447076297 | 0.147044389 | -3.040417259 | 0.002362506 | 0.086601498 | 1830 | 1847 | 1675 | 1408 | 1306 | 1211 |
| Asns | ENSMUSG00000029752 | 450.6111834 | -1.187409308 | 0.390683161 | -3.039315299 | 0.002371165 | 0.086744741 | 767 | 828 | 283 | 337 | 241 | 247 |
| St8sia4 | ENSMUSG00000040710 | 268.384472 | -0.579242324 | 0.190810249 | -3.03569817 | 0.002399795 | 0.087346266 | 295 | 332 | 338 | 209 | 243 | 194 |
| Agfg2 | ENSMUSG00000029722 | 983.6125644 | -0.600507143 | 0.198007647 | -3.03274723 | 0.002423385 | 0.088301183 | 1240 | 1271 | 1045 | 916 | 657 | 772 |
| Slc2a4rg-ps | ENSMUSG00000085028 | 77.19178765 | 0.982402525 | 0.324247873 | 3.02978865 | 0.002447249 | 0.088972849 | 72 | 40 | 43 | 86 | 104 | 118 |
| Hmmr | ENSMUSG00000020330 | 57.40757456 | 1.057348328 | 0.34904552 | 3.029256266 | 0.002451566 | 0.088972849 | 50 | 33 | 29 | 97 | 63 | 72 |
| 1110032F04Rik | ENSMUSG00000046999 | 40.30512927 | -1.251840918 | 0.413701994 | -3.025948473 | 0.002478545 | 0.089773503 | 66 | 70 | 34 | 30 | 21 | 20 |
| Tmprss6 | ENSMUSG00000016942 | 22.37758475 | -1.362025936 | 0.450298471 | -3.024718099 | 0.00248865 | 0.08996099 | 36 | 36 | 24 | 13 | 10 | 14 |
| Lpar1 | ENSMUSG00000038668 | 527.5438325 | -0.565767038 | 0.18720813 | -3.022128568 | 0.002510039 | 0.090554871 | 660 | 648 | 581 | 496 | 373 | 408 |
| Fam83d | ENSMUSG00000027654 | 32.07665123 | 1.511514486 | 0.501012888 | 3.01691737 | 0.002553594 | 0.091919492 | 23 | 7 | 20 | 33 | 48 | 62 |
| Lrrtm1 | ENSMUSG00000060780 | 5.846419472 | 3.421771147 | 1.134588012 | -3.015871056 | 0.002562422 | 0.091919492 | 10 | 6 | 16 | 2 | 1 | 0 |
| Acsl1 | ENSMUSG00000018796 | 1319.33186 | 0.709370207 | 0.235217439 | 3.01580619 | 0.00256297 | 0.091919492 | 990 | 1218 | 796 | 1796 | 1797 | 1319 |
| E230013L22Rik | ENSMUSG00000096957 | 25.04864022 | -1.250060195 | 0.414841242 | -3.013345994 | 0.002583841 | 0.092279931 | 33 | 33 | 40 | 14 | 12 | 18 |
| Cyp2j9 | ENSMUSG00000015224 | 54.23022972 | -0.953127709 | 0.313320094 | -3.013060405 | 0.002586274 | 0.092279931 | 88 | 62 | 65 | 38 | 31 | 41 |
| Col6a2 | ENSMUSG00000020241 | 767.5252532 | -0.991568487 | 0.329114631 | -3.01283624 | 0.002588185 | 0.092279931 | 814 | 682 | 1568 | 451 | 564 | 526 |
| Lum | ENSMUSG00000036446 | 210.9943999 | -0.833355754 | 0.27687865 | -3.009823089 | 0.002613999 | 0.09301626 | 284 | 262 | 265 | 109 | 139 | 207 |
| Gpatch3 | ENSMUSG00000028850 | 169.5749758 | 0.637788202 | 0.211943337 | 3.009239223 | 0.002619028 | 0.09301626 | 128 | 127 | 143 | 179 | 208 | 232 |
| 2810459M11Rik | ENSMUSG00000066227 | 12.06460264 | 1.936265173 | 0.643606823 | 3.008459672 | 0.002625756 | 0.093074145 | 4 | 3 | 8 | 19 | 24 | 14 |
| Tnni3 | ENSMUSG00000035458 | 7.977257011 | 4.523335521 | 1.504311416 | 3.006914308 | 0.002639141 | 0.093367302 | 2 | 0 | 0 | 4 | 38 | 4 |
| Nup93 | ENSMUSG00000032939 | 476.9195864 | 0.522006411 | 0.173699403 | 3.00522858 | 0.002653813 | 0.093527392 | 413 | 366 | 396 | 628 | 551 | 508 |
| Celf6 | ENSMUSG00000032297 | 24.76278207 | -1.31253177 | 0.436751064 | -3.005217111 | 0.002653913 | 0.093527392 | 44 | 26 | 36 | 17 | 14 | 13 |
| Rhcg | ENSMUSG00000030549 | 11.77254666 | -1.793198905 | 0.596894336 | -3.004214979 | 0.002662671 | 0.093594189 | 15 | 22 | 18 | 5 | 5 | 6 |
| Cdc20 | ENSMUSG00000006398 | 190.2034757 | 0.651922392 | 0.217030557 | 3.003827669 | 0.002666063 | 0.093594189 | 170 | 139 | 135 | 204 | 232 | 261 |
| Gm27177 | ENSMUSG00000098975 | 90.35102081 | -5.022125889 | 1.672647338 | -3.00250135 | 0.002677708 | 0.093611034 | 257 | 268 | 1 | 11 | 2 | 3 |
| Sdr42e1 | ENSMUSG00000034308 | 61.90793019 | -0.875935237 | 0.29176248 | -3.00222029 | 0.002680182 | 0.093611034 | 88 | 83 | 70 | 53 | 39 | 40 |
| Ankrd35 | ENSMUSG00000038354 | 19.74942335 | -1.395849752 | 0.464983923 | -3.001931216 | 0.002682728 | 0.093611034 | 34 | 23 | 29 | 10 | 13 | 10 |
| Treml4 | ENSMUSG00000051682 | 35.12342398 | 1.335779426 | 0.445046098 | 3.001440598 | 0.002687055 | 0.093611034 | 22 | 19 | 19 | 30 | 47 | 74 |
| Noxo1 | ENSMUSG00000019320 | 78.18778102 | 0.874434362 | 0.291658064 | 2.9981491 | 0.002716248 | 0.094582492 | 49 | 62 | 54 | 114 | 114 | 76 |
| Mapk8ip2 | ENSMUSG00000022619 | 54.39455734 | -0.97976453 | 0.327280103 | -2.993657479 | 0.002756552 | 0.095667032 | 94 | 60 | 63 | 37 | 33 | 40 |
| Ninl | ENSMUSG00000068115 | 557.8408175 | -0.857645236 | 0.286572018 | -2.992773835 | 0.002764545 | 0.095782322 | 998 | 656 | 502 | 429 | 418 | 343 |
| Stx1a | ENSMUSG00000007207 | 94.34764011 | -0.895581676 | 0.299398499 | -2.991269757 | 0.0027782 | 0.096053092 | 166 | 103 | 99 | 67 | 68 | 63 |
| Bhlhe40 | ENSMUSG00000030103 | 735.1202026 | 0.916366899 | 0.30661304 | 2.988675561 | 0.002801895 | 0.096612249 | 324 | 573 | 631 | 1123 | 1044 | 717 |
| Cyp2j6 | ENSMUSG00000052914 | 263.674741 | -0.533926104 | 0.178716984 | -2.987550999 | 0.002812224 | 0.096612249 | 287 | 324 | 325 | 221 | 225 | 200 |
| Pgbd5 | ENSMUSG00000050751 | 476.5632407 | 0.480819504 | 0.160947187 | 2.987436523 | 0.002813277 | 0.096612249 | 393 | 382 | 418 | 602 | 545 | 519 |
| Fam76a | ENSMUSG00000028878 | 1520.402211 | 0.547363388 | 0.183236851 | 2.987190535 | 0.002815542 | 0.096612249 | 1108 | 1334 | 1263 | 2105 | 1678 | 1634 |
| Mgat2 | ENSMUSG00000043998 | 1642.396613 | -0.63129504 | 0.211382314 | -2.98650832 | 0.002821832 | 0.096646409 | 1977 | 2290 | 1721 | 1515 | 1291 | 1060 |
| Akr1c13 | ENSMUSG00000021213 | 84.44883338 | -0.899989526 | 0.301634748 | -2.983706398 | 0.002847799 | 0.097198952 | 132 | 113 | 85 | 56 | 49 | 72 |
| Gcnt2 | ENSMUSG00000021360 | 218.0104587 | -0.545247054 | 0.182746884 | -2.983618882 | 0.002848613 | 0.097198952 | 252 | 265 | 259 | 191 | 162 | 178 |
| Tenm3 | ENSMUSG00000031561 | 145.0311336 | 1.104273184 | 0.370187844 | 2.983007689 | 0.002854308 | 0.097211561 | 116 | 87 | 74 | 197 | 283 | 115 |
| Trim7 | ENSMUSG00000040350 | 225.5071834 | -0.700945537 | 0.235077144 | -2.981768129 | 0.00286589 | 0.097424238 | 345 | 266 | 227 | 174 | 156 | 185 |
| Gm4899 | ENSMUSG00000094615 | 32.43062458 | 1.243912743 | 0.417413596 | 2.980048459 | 0.002882028 | 0.097691268 | 13 | 29 | 16 | 52 | 40 | 45 |
| Tmem159 | ENSMUSG00000030917 | 1283.80239 | -0.498127347 | 0.167168532 | -2.97979136 | 0.002884448 | 0.097691268 | 1726 | 1435 | 1349 | 1097 | 1073 | 1023 |
| Pitpnm3 | ENSMUSG00000040543 | 49.36971533 | -1.059586593 | 0.355805179 | -2.977996542 | 0.002901393 | 0.098033188 | 75 | 81 | 44 | 34 | 33 | 29 |
| Cdh3 | ENSMUSG00000061048 | 21.82415123 | -1.489417623 | 0.500364561 | -2.976664892 | 0.002914023 | 0.098328088 | 27 | 39 | 30 | 6 | 17 | 11 |
| Mmp15 | ENSMUSG00000031790 | 279.6662865 | -0.743421136 | 0.249822753 | -2.975794344 | 0.002922308 | 0.0983629 | 400 | 378 | 272 | 229 | 233 | 166 |
| Gng4 | ENSMUSG00000021303 | 31.11410474 | -1.291812087 | 0.434160568 | -2.975424718 | 0.002925832 | 0.0983629 | 54 | 42 | 36 | 13 | 14 | 27 |
| Pik3c2b | ENSMUSG00000026447 | 330.134451 | 0.621380046 | 0.221380046 | 2.973379961 | 0.002945396 | 0.098848807 | 322 | 222 | 225 | 385 | 433 | 394 |
| Ptpru | ENSMUSG00000028909 | 732.6128216 | -1.041269983 | 0.350356576 | -2.972029221 | 0.002958385 | 0.099042499 | 1195 | 1241 | 522 | 504 | 564 | 369 |
| Scd2 | ENSMUSG00000025203 | 21407.05107 | -0.696301502 | 0.234317076 | -2.971620822 | 0.002962323 | 0.099042499 | 29869 | 29704 | 19852 | 19232 | 15819 | 13966 |
| Fam110c | ENSMUSG00000036136 | 9.603256643 | -2.117244139 | 0.712882095 | -2.969978003 | 0.002978211 | 0.099289743 | 18 | 14 | 15 | 1 | 5 | 5 |
| Slc38a1 | ENSMUSG00000023169 | 165.47911 | -0.591283821 | 0.199173536 | -2.968686694 | 0.002990754 | 0.099289743 | 205 | 182 | 210 | 122 | 140 | 134 |
| 1700086L19Rik | ENSMUSG00000071265 | 8.626507713 | -2.482367296 | 0.836238906 | -2.968490557 | 0.002992663 | 0.099289743 | 22 | 9 | 13 | 1 | 2 | 5 |
| Rph3a | ENSMUSG00000029608 | 16.0611823 | -1.873970655 | 0.631311989 | -2.968374889 | 0.002993789 | 0.099289743 | 40 | 12 | 14 | 4 | 10 | 7 |
| Ppfibp1 | ENSMUSG00000016487 | 2673.572631 | -1.02135018 | 0.344114376 | -2.968054375 | 0.002996913 | 0.099289743 | 4074 | 4460 | 2213 | 2329 | 1816 | 1150 |
| Galnt16 | ENSMUSG00000021130 | 145.1446091 | -0.749643186 | 0.252660062 | -2.967003095 | 0.003007179 | 0.099449381 | 212 | 194 | 140 | 97 | 120 | 107 |
| Opn3 | ENSMUSG00000026525 | 362.8483728 | 0.832572359 | 0.280686251 | 2.966202849 | 0.003015016 | 0.099528227 | 301 | 298 | 185 | 377 | 434 | 583 |

# Table S5. Genes differentially expressed in ABC Male vs ABC Female

| Gene | ENSEMBL_Gene_ID | baseMean | log2FoldChange | lfcSE | stat | pvalue | padj | 166836_No | 166838_No | 182098_Tu | 184208_Tu | 183159_B2 | BS05_Norm | 207386_No |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ddx3y | ENSMUSG00000069045 | 1046.848744 | 12.23680254 | 1.023642768 | 11.95417281 | 6.17453E-33 | 3.9801E-29 | 2451 | 2744 | 2130 | 1 | 0 | 0 | 1 |
| Eif2s3y | ENSMUSG00000069049 | 398.4463562 | 11.55675408 | 1.067877975 | 10.82216728 | 2.70309E-27 | 1.30681E-23 | 818 | 866 | 1105 | 0 | 0 | 1 | 0 |
| Drd4 | ENSMUSG00000025496 | 54.58397991 | 7.336438255 | 1.064060904 | 6.894754078 | 5.39581E-12 | 6.13789E-09 | 50 | 79 | 249 | 1 | 3 | 0 | 1 |
| Gm29650 | ENSMUSG00000099876 | 11.55833114 | 7.170987222 | 1.187473369 | 6.038861511 | 1.55205E-09 | 1.00045E-06 | 22 | 24 | 35 | 0 | 0 | 0 | 0 |
| Susd3 | ENSMUSG00000021384 | 769.1433918 | 4.634436514 | 0.556861731 | 8.322418951 | 8.61862E-17 | 1.51515E-13 | 1322 | 1717 | 2068 | 45 | 158 | 43 | 30 |
| Kdm5d | ENSMUSG00000056673 | 284.7519157 | 4.423946895 | 0.33653877 | 13.14543014 | 1.80775E-39 | 3.49582E-35 | 767 | 608 | 500 | 21 | 41 | 29 | 26 |
| Uty | ENSMUSG00000068457 | 338.1005811 | 4.15321738 | 0.832168958 | 4.990834301 | 6.01191E-07 | 0.000181653 | 908 | 723 | 570 | 14 | 132 | 11 | 10 |
| 4930438A08Rik | ENSMUSG00000069873 | 12.3566045 | 3.727209382 | 0.757595106 | 4.919790735 | 8.66368E-07 | 0.00024638 | 27 | 34 | 17 | 4 | 1 | 2 | 1 |
| Aldh1l2 | ENSMUSG00000020256 | 51.41029936 | 3.627532669 | 0.743368908 | 4.879855252 | 1.06164E-06 | 0.000293285 | 161 | 151 | 14 | 9 | 5 | 11 | 10 |
| Cox6a2 | ENSMUSG00000030785 | 33.40694447 | 3.256909082 | 0.651811756 | 4.996701961 | 5.83191E-07 | 0.000179012 | 66 | 104 | 34 | 4 | 16 | 7 | 3 |
| Cacnb4 | ENSMUSG00000017412 | 26.70626031 | 3.186838369 | 0.579601553 | 5.498326143 | 3.83413E-08 | 1.75172E-05 | 47 | 74 | 41 | 6 | 12 | 5 | 2 |
| Tnn | ENSMUSG00000026725 | 50.75434258 | 3.168358092 | 0.747366309 | 4.239364355 | 2.24154E-05 | 0.004291764 | 73 | 162 | 75 | 8 | 8 | 28 | 1 |
| Lcn2 | ENSMUSG00000026822 | 15.93920059 | 3.068115533 | 0.730132013 | 4.202138078 | 2.64406E-05 | 0.004734332 | 35 | 43 | 18 | 0 | 5 | 5 | 5 |
| Paqr5 | ENSMUSG00000032278 | 150.0284161 | 2.921961595 | 0.507390439 | 5.758803027 | 8.47125E-09 | 4.55047E-06 | 259 | 329 | 304 | 64 | 55 | 26 | 13 |
| Trib3 | ENSMUSG00000032715 | 153.4450361 | 2.913239444 | 0.441426426 | 6.599603637 | 4.12258E-11 | 4.19592E-08 | 365 | 410 | 138 | 38 | 31 | 42 | 51 |
| Kcnk1 | ENSMUSG00000033998 | 669.6760387 | 2.848949389 | 0.304245709 | 9.363975577 | 7.67916E-21 | 1.65E-17 | 1204 | 1377 | 1374 | 236 | 211 | 168 | 118 |
| 4632428C04Rik | ENSMUSG00000097184 | 14.0534001 | 2.797561128 | 0.617143972 | 4.533076968 | 5.81306E-06 | 0.001405162 | 19 | 35 | 28 | 3 | 4 | 6 | 3 |
| Bhlha15 | ENSMUSG00000052271 | 58.72151174 | 2.704404621 | 0.581638533 | 4.649631119 | 3.32529E-06 | 0.000835123 | 129 | 169 | 44 | 11 | 9 | 20 | 29 |
| Gsta3 | ENSMUSG00000025934 | 329.2782076 | 2.684706562 | 0.347617508 | 7.723162681 | 1.13478E-14 | 1.68803E-11 | 652 | 613 | 643 | 84 | 160 | 84 | 69 |
| 1520401A03Rik | ENSMUSG00000043747 | 7.517464613 | 2.563030032 | 0.783517234 | 3.271185265 | 0.001070977 | 0.073950605 | 12 | 16 | 16 | 4 | 0 | 2 | 3 |
| Adcy8 | ENSMUSG00000022376 | 70.49321408 | 2.505202727 | 0.408562646 | 6.131746878 | 8.69193E-10 | 6.22535E-07 | 141 | 170 | 90 | 24 | 13 | 31 | 24 |
| 9330159F19Rik | ENSMUSG00000004360 | 266.5886506 | 2.482105194 | 0.553758741 | 4.48228626 | 7.38476E-06 | 0.001704018 | 544 | 430 | 534 | 154 | 48 | 128 | 28 |
| Gdf15 | ENSMUSG00000038508 | 60.50482018 | 2.399121087 | 0.446222178 | 5.376516991 | 7.59406E-08 | 3.05946E-05 | 124 | 154 | 60 | 27 | 24 | 19 | 16 |
| Adamts8 | ENSMUSG00000031994 | 31.72002932 | 2.396547243 | 0.642801487 | 3.728285156 | 0.000192787 | 0.022458543 | 38 | 84 | 56 | 8 | 1 | 16 | 19 |
| Tubb3 | ENSMUSG00000062380 | 451.4934974 | 2.321252971 | 0.439060826 | 5.286859663 | 1.24434E-07 | 4.62751E-05 | 508 | 742 | 1246 | 212 | 82 | 192 | 179 |
| Pdgfrl | ENSMUSG00000031595 | 77.37931562 | 2.227076981 | 0.297367842 | 7.489300007 | 6.92419E-14 | 8.92667E-11 | 135 | 138 | 148 | 26 | 33 | 34 | 26 |
| Derl3 | ENSMUSG00000009092 | 49.72859925 | 2.06477907 | 0.589372236 | 3.503353136 | 0.00045944 | 0.043150363 | 87 | 130 | 48 | 18 | 8 | 42 | 16 |
| Foxo6 | ENSMUSG00000052135 | 36.36172752 | 1.968767633 | 0.619080795 | 3.180146516 | 0.001472006 | 0.092121855 | 27 | 51 | 112 | 15 | 8 | 13 | 29 |
| 5031414D18Rik | ENSMUSG00000034959 | 45.52840953 | 1.917700445 | 0.368056594 | 5.210341232 | 1.88494E-07 | 6.62744E-05 | 70 | 66 | 100 | 21 | 16 | 22 | 23 |
| Grin2d | ENSMUSG00000002771 | 47.85536355 | 1.915363823 | 0.559583 | 3.422841332 | 0.000619702 | 0.0528984 | 36 | 64 | 148 | 31 | 15 | 23 | 18 |
| Prss35 | ENSMUSG00000033491 | 7597.575661 | 1.830608125 | 0.295724572 | 6.190246935 | 6.007E-10 | 4.68414E-07 | 12741 | 14450 | 11492 | 4003 | 2658 | 2969 | 4871 |
| Ampd3 | ENSMUSG00000005686 | 342.1663572 | 1.757962229 | 0.409125643 | 4.296876135 | 1.73222E-05 | 0.003453366 | 536 | 485 | 698 | 196 | 71 | 211 | 198 |
| Glt8d2 | ENSMUSG00000020251 | 151.4439101 | 1.754613768 | 0.400864129 | 4.377078521 | 1.20281E-05 | 0.00254497 | 200 | 363 | 198 | 58 | 51 | 109 | 82 |
| Tsku | ENSMUSG00000049580 | 291.3594715 | 1.747530891 | 0.408062399 | 4.282508992 | 1.84798E-05 | 0.00363298 | 451 | 535 | 473 | 70 | 215 | 182 | 113 |
| Fgf11 | ENSMUSG00000042826 | 270.3718814 | 1.727687771 | 0.323180877 | 5.345884901 | 8.99764E-08 | 3.47993E-05 | 364 | 478 | 508 | 197 | 103 | 119 | 124 |
| Acan | ENSMUSG00000030607 | 2627.371611 | 1.69465377 | 0.439611351 | 3.854890841 | 0.000115781 | 0.0150267 | 4123 | 5170 | 3733 | 2343 | 632 | 1081 | 1308 |
| Prrg3 | ENSMUSG00000033361 | 3226.380308 | 1.64245984 | 0.508820794 | 3.227973107 | 0.001246707 | 0.08172481 | 6570 | 7038 | 2218 | 1914 | 722 | 2371 | 1751 |
| Jam2 | ENSMUSG00000053062 | 815.5511485 | 1.632135 | 0.271365031 | 6.028517166 | 1.65471E-09 | 1.03222E-06 | 1244 | 1671 | 1080 | 489 | 356 | 479 | 389 |
| Chac1 | ENSMUSG00000027313 | 66.34990642 | 1.626814943 | 0.39461149 | 4.122573682 | 3.74663E-05 | 0.006245886 | 125 | 120 | 80 | 37 | 20 | 33 | 50 |
| Hhex | ENSMUSG00000024986 | 910.2269489 | 1.544843719 | 0.384229252 | 4.020630164 | 5.80427E-05 | 0.008701001 | 1286 | 1424 | 1663 | 258 | 456 | 521 | 764 |
| Zbtb16 | ENSMUSG00000066687 | 114.7796148 | 1.538822023 | 0.351868901 | 4.373282263 | 1.22392E-05 | 0.00254497 | 256 | 156 | 140 | 72 | 59 | 74 | 48 |
| Speg | ENSMUSG00000026207 | 184.8438817 | 1.533969187 | 0.249712489 | 6.142941402 | 8.10072E-10 | 6.02506E-07 | 290 | 311 | 284 | 93 | 127 | 101 | 88 |
| Pdp1 | ENSMUSG00000049225 | 2641.631006 | 1.507077469 | 0.225806227 | 6.67420687 | 2.48573E-11 | 2.6705E-08 | 4488 | 4097 | 4004 | 1526 | 1263 | 1795 | 1318 |
| Zfp69 | ENSMUSG00000064141 | 39.83588766 | 1.475748177 | 0.431881935 | 3.417017608 | 0.000633112 | 0.053697881 | 46 | 49 | 94 | 25 | 16 | 25 | 24 |
| Shh | ENSMUSG00000002633 | 7053.141673 | 1.468141294 | 0.412956635 | 3.555194833 | 0.000377699 | 0.038030607 | 7996 | 8717 | 16604 | 6033 | 2429 | 4147 | 3446 |
| Ppp1r3b | ENSMUSG00000046794 | 125.275267 | 1.452688477 | 0.354097683 | 4.102507713 | 4.08696E-05 | 0.006687622 | 216 | 236 | 139 | 70 | 51 | 66 | 100 |
| Pitpnm3 | ENSMUSG00000040543 | 41.22092005 | 1.41782772 | 0.433615105 | 3.269783969 | 0.001076296 | 0.073950605 | 72 | 78 | 43 | 33 | 17 | 28 | 17 |
| Penk | ENSMUSG00000045573 | 124.4538138 | 1.399609794 | 0.341292807 | 4.100906212 | 4.11535E-05 | 0.006687622 | 220 | 146 | 211 | 50 | 90 | 64 | 90 |
| Stard5 | ENSMUSG00000046027 | 325.4734983 | 1.391621343 | 0.244508343 | 5.691508614 | 1.25922E-08 | 6.40809E-06 | 474 | 437 | 599 | 170 | 207 | 179 | 212 |
| Map2 | ENSMUSG00000015222 | 423.8694955 | 1.38128227 | 0.436264312 | 3.166159021 | 0.001544662 | 0.09482751 | 743 | 806 | 415 | 338 | 112 | 310 | 244 |
| Fads3 | ENSMUSG00000024664 | 266.2092801 | 1.366824328 | 0.415621029 | 3.288631308 | 0.001006758 | 0.07061468 | 430 | 522 | 276 | 140 | 95 | 141 | 260 |
| Amotl1 | ENSMUSG00000013076 | 3306.572111 | 1.298425647 | 0.392591964 | 3.30731591 | 0.000941946 | 0.068222291 | 5718 | 6185 | 3106 | 2363 | 2778 | 1813 | 1182 |
| Itgb8 | ENSMUSG00000025321 | 361.579721 | 1.288411095 | 0.376475816 | 3.422294444 | 0.00062095 | 0.0528984 | 643 | 561 | 434 | 300 | 127 | 288 | 178 |
| Mmp24 | ENSMUSG00000027612 | 114.3352986 | 1.286583568 | 0.346668059 | 3.71128385 | 0.000206211 | 0.023595874 | 177 | 230 | 111 | 68 | 72 | 83 | 60 |
| Tro | ENSMUSG00000025272 | 192.9562521 | 1.280605083 | 0.364774934 | 3.510671822 | 0.000446976 | 0.042579403 | 374 | 332 | 165 | 111 | 152 | 105 | 111 |
| Hivep3 | ENSMUSG00000028634 | 271.0569464 | 1.274498075 | 0.30313384 | 4.204407143 | 2.61767E-05 | 0.004734332 | 447 | 444 | 332 | 170 | 231 | 141 | 132 |
| Htr3a | ENSMUSG00000032269 | 229.0798043 | 1.271010657 | 0.374596358 | 3.393013921 | 0.000691281 | 0.056885093 | 286 | 353 | 395 | 114 | 131 | 230 | 95 |
| Kcnc3 | ENSMUSG00000062785 | 36.3853384 | 1.269830853 | 0.382055788 | 3.323679144 | 0.000888383 | 0.065570835 | 49 | 64 | 50 | 17 | 31 | 24 | 20 |
| Cers6 | ENSMUSG00000027035 | 81.4612258 | 1.264629263 | 0.386108575 | 3.275320035 | 0.001055422 | 0.073681429 | 107 | 181 | 79 | 54 | 55 | 55 | 40 |
| Slc4a11 | ENSMUSG00000074796 | 88.99215241 | 1.249593755 | 0.299660053 | 4.170037827 | 3.04549E-05 | 0.005403092 | 103 | 166 | 130 | 54 | 57 | 56 | 57 |
| Maneal | ENSMUSG00000042763 | 266.7406834 | 1.246401434 | 0.361526378 | 3.447608555 | 0.000565573 | 0.049940877 | 394 | 473 | 329 | 128 | 112 | 178 | 253 |
| Smarca1 | ENSMUSG00000031099 | 1112.89876 | 1.256569304 | 0.313872628 | 3.875996808 | 0.000106189 | 0.013969281 | 2050 | 1826 | 1074 | 834 | 721 | 731 | 554 |
| Lifr | ENSMUSG00000054263 | 1052.650117 | 1.194167183 | 0.326104203 | 3.661919012 | 0.000250333 | 0.027355237 | 1753 | 1857 | 1046 | 864 | 488 | 648 | 712 |
| Adamtsl4 | ENSMUSG00000015850 | 100.5890668 | 1.182641227 | 0.351251656 | 3.366934241 | 0.000760088 | 0.059750341 | 129 | 163 | 152 | 80 | 36 | 65 | 79 |
| Mpp3 | ENSMUSG00000052373 | 103.8797507 | 1.171005225 | 0.282430885 | 4.146165613 | 3.38089E-05 | 0.005837474 | 152 | 139 | 166 | 68 | 67 | 83 | 53 |
| Atf5 | ENSMUSG00000038539 | 1329.517493 | 1.161331304 | 0.335401354 | 3.46251227 | 0.000535158 | 0.048359234 | 1931 | 2566 | 1333 | 685 | 1112 | 698 | 981 |
| 2010007H06Rik | ENSMUSG00000044694 | 311.9267151 | 1.160570496 | 0.291381246 | 3.982996546 | 6.80517E-05 | 0.009894621 | 425 | 520 | 422 | 267 | 207 | 146 | 196 |
| Tgfbr3 | ENSMUSG00000029287 | 3861.464092 | 1.139053317 | 0.313332892 | 3.635281662 | 0.000277607 | 0.029503953 | 6024 | 6876 | 3938 | 2780 | 1797 | 3059 | 2556 |
| Eda | ENSMUSG00000059327 | 91.92443301 | 1.12079511 | 0.331884047 | 3.377068342 | 0.000732628 | 0.058302753 | 133 | 154 | 113 | 64 | 45 | 83 | 51 |
| Asph | ENSMUSG00000028207 | 2467.872162 | 1.117847913 | 0.265914007 | 4.203794771 | 2.62477E-05 | 0.004734332 | 3663 | 4084 | 2955 | 1711 | 1198 | 1889 | 1775 |
| Klf15 | ENSMUSG00000030087 | 402.1668676 | 1.097252478 | 0.273894973 | 4.006106669 | 6.17278E-05 | 0.009112151 | 481 | 515 | 738 | 326 | 246 | 242 | 267 |
| Rtn4rl1 | ENSMUSG00000045287 | 4352.878817 | 1.080675047 | 0.212205066 | 5.092597763 | 3.5319E-07 | 0.000119825 | 6183 | 5897 | 6609 | 3425 | 3077 | 2478 | 2801 |
| Ccdc85a | ENSMUSG00000032878 | 130.1997464 | 1.072835974 | 0.326255731 | 3.288328363 | 0.001007842 | 0.07061468 | 213 | 212 | 134 | 78 | 80 | 118 | 77 |
| Acot2 | ENSMUSG00000021226 | 232.4384155 | 1.051878735 | 0.246218684 | 4.272132602 | 1.93613E-05 | 0.003744085 | 299 | 330 | 361 | 128 | 162 | 183 | 164 |
| Tmem117 | ENSMUSG00000063296 | 109.2634736 | 1.031001456 | 0.288631017 | 3.57203972 | 0.000354212 | 0.036242039 | 135 | 180 | 148 | 88 | 57 | 74 | 82 |
| Ncam1 | ENSMUSG00000039542 | 228.7391812 | 0.953523141 | 0.267049502 | 3.570585737 | 0.000356184 | 0.036252017 | 308 | 274 | 366 | 169 | 202 | 148 | 135 |
| Fli1 | ENSMUSG00000016087 | 298.8886766 | 0.902975851 | 0.284466697 | 3.174276149 | 0.001502107 | 0.093101751 | 397 | 359 | 466 | 297 | 188 | 192 | 193 |
| Apln | ENSMUSG00000037010 | 959.2443143 | 0.894200741 | 0.237959168 | 3.757790663 | 0.00017142 | 0.02048155 | 1243 | 1335 | 1332 | 749 | 583 | 860 | 611 |
| Bbs4 | ENSMUSG00000025235 | 477.9673231 | 0.870579947 | 0.238111301 | 3.65618912 | 0.000255993 | 0.027655774 | 575 | 575 | 785 | 387 | 356 | 314 | 355 |
| Sema3b | ENSMUSG00000057969 | 123.7154014 | 0.868926369 | 0.261258471 | 3.325926223 | 0.000881253 | 0.065570835 | 153 | 172 | 176 | 72 | 98 | 101 | 95 |
| Scml4 | ENSMUSG00000044770 | 234.6942703 | 0.864017509 | 0.246634995 | 3.503223496 | 0.000459664 | 0.043150363 | 354 | 346 | 248 | 165 | 184 | 174 | 172 |
| Cd200 | ENSMUSG00000022661 | 1072.480204 | 0.863217744 | 0.262105876 | 3.293393332 | 0.000989859 | 0.07011682 | 1314 | 1677 | 1342 | 683 | 635 | 929 | 928 |
| Trib2 | ENSMUSG00000020601 | 845.1608904 | 0.842354058 | 0.259358472 | 3.247837096 | 0.001162858 | 0.078081088 | 1111 | 1218 | 1064 | 751 | 455 | 701 | 616 |
| Bcl2 | ENSMUSG00000057329 | 404.2529121 | 0.83822343 | 0.234870789 | 3.568870501 | 0.00035824 | 0.036299104 | 587 | 513 | 522 | 375 | 275 | 276 | 283 |
| Fhl1 | ENSMUSG00000023092 | 853.1120659 | 0.819485431 | 0.230587431 | 3.553903292 | 0.000379559 | 0.038030607 | 1050 | 1083 | 1269 | 641 | 580 | 780 | 568 |
| Sgsm3 | ENSMUSG00000042303_I | 453.5715607 | 0.814441013 | 0.24102513 | 3.379070942 | 0.000727312 | 0.058118871 | 572 | 559 | 676 | 404 | 283 | 368 | 313 |
| Cacna2d1 | ENSMUSG00000040118 | 6202.943495 | 0.802313133 | 0.247438465 | 3.242475381 | 0.001184962 | 0.078744991 | 9109 | 8599 | 6900 | 5545 | 3790 | 5159 | 4318 |
| Jag1 | ENSMUSG00000027276 | 299.0829684 | 0.776399329 | 0.239908484 | 3.236231228 | 0.001211192 | 0.079779168 | 406 | 424 | 348 | 265 | 186 | 232 | 232 |
| Slc29a1 | ENSMUSG00000023942 | 2491.608698 | 0.718985561 | 0.216815981 | 3.31610962 | 0.0009128 | 0.066731232 | 3312 | 3804 | 2701 | 1955 | 1825 | 1934 | 2091 |
| Arl15 | ENSMUSG00000042348 | 1331.015427 | 0.611175269 | 0.173725594 | 3.518049673 | 0.000434731 | 0.042034138 | 1629 | 1703 | 1643 | 1139 | 1094 | 1105 | 1005 |
| Eif2s3x | ENSMUSG00000035150 | 4981.069602 | -0.67314522 | 0.175830364 | -3.828378695 | 0.00012899 | 0.016151143 | 3796 | 3848 | 3510 | 6299 | 6091 | 5890 | 5434 |
| Gm8203 | ENSMUSG00000101878 | 574.8860218 | -0.713205365 | 0.201692114 | -3.536109203 | 0.000406067 | 0.039659173 | 434 | 397 | 432 | 677 | 640 | 787 | 656 |
| Addk3 | ENSMUSG00000026489 | 2184.2285 | -0.713463334 | 0.206902452 | -3.448307779 | 0.000564111 | 0.049940877 | 1819 | 1516 | 1463 | 2447 | 2986 | 2555 | 2503 |
| Rps6ka1 | ENSMUSG00000003644 | 627.7080496 | -0.71669517 | 0.22113531 | -3.24098024 | 0.001191194 | 0.078888073 | 495 | 471 | 412 | 712 | 647 | 858 | 799 |
| Rasal1 | ENSMUSG00000029602 | 259.9515606 | -0.719542972 | 0.220062816 | -3.269716285 | 0.001076554 | 0.073950605 | 189 | 174 | 208 | 313 | 286 | 349 | 302 |
| Sccpdh | ENSMUSG00000038936 | 1892.938913 | -0.831214794 | 0.216187171 | -3.844884923 | 0.000120609 | 0.015548916 | 1273 | 1312 | 1343 | 2558 | 2663 | 1941 | 2160 |
| Rangap1 | ENSMUSG00000022391 | 1546.169035 | -0.850324932 | 0.266008178 | -3.196611995 | 0.001390518 | 0.088163422 | 1030 | 1258 | 891 | 1811 | 2464 | 1607 | 1762 |
| Dusp14 | ENSMUSG00000018648 | 227.9072555 | -0.858298764 | 0.26412079 | -3.249644839 | 0.001155492 | 0.07786682 | 129 | 149 | 189 | 267 | 251 | 274 | 336 |
| Echdc2 | ENSMUSG00000028601 | 267.7420314 | -0.859368973 | 0.254073956 | -3.38235795 | 0.000718665 | 0.057972352 | 175 | 155 | 218 | 340 | 380 | 325 | 281 |
| Pkdcc | ENSMUSG00000024247 | 1252.370834 | -0.889666964 | 0.276331738 | -3.219561276 | 0.001283869 | 0.083172378 | 875 | 737 | 914 | 1525 | 1311 | 1287 | 2117 |
| Plin2 | ENSMUSG00000028494 | 4402.383981 | -0.934264081 | 0.288030992 | -3.243623455 | 0.001180197 | 0.078744991 | 2625 | 2656 | 3404 | 3715 | 6339 | 5539 | 6538 |
| Nmnat3 | ENSMUSG00000032456 | 429.3325543 | -0.941006797 | 0.253276066 | -3.715331589 | 0.000202937 | 0.023359543 | 313 | 270 | 261 | 599 | 632 | 420 | 510 |

# Table S5. Genes differentially expressed in ABC Male vs ABC Female

| Gene | ENSEMBL_Gene_ID | baseMean | log2FoldChange | lfcSE | stat | pvalue | padj | 166836_No | 166838_No | 182098_Tu | 184208_Tu | 183159_B2 | BS05_Norm | 207386_No |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5930412G12Rik | ENSMUSG00000072591 | 319.1366747 | -0.949088398 | 0.286609444 | -3.311434496 | 0.00092819 | 0.067478691 | 214 | 169 | 242 | 491 | 434 | 383 | 300 |
| Opn3 | ENSMUSG00000026525 | 386.3840882 | -0.953362147 | 0.281341218 | -3.388633039 | 0.000702419 | 0.05731387 | 290 | 288 | 177 | 532 | 409 | 527 | 481 |
| Shtn1 | ENSMUSG00000041362 | 405.8820789 | -0.958357908 | 0.222406826 | -4.309031009 | 1.63971E-05 | 0.003337767 | 285 | 281 | 226 | 550 | 455 | 497 | 548 |
| Spint2 | ENSMUSG00000074227 | 2218.808353 | -0.963194831 | 0.286503753 | -3.361892543 | 0.000774102 | 0.06036126 | 1110 | 1408 | 1797 | 2324 | 3493 | 2416 | 2984 |
| Fam110b | ENSMUSG00000049119 | 173.9652517 | -0.963408713 | 0.251511173 | -3.830480781 | 0.000127893 | 0.016151143 | 120 | 115 | 104 | 253 | 203 | 237 | 185 |
| Tacc3 | ENSMUSG00000037313 | 163.9177864 | -0.975009148 | 0.303239179 | -3.215313907 | 0.001303019 | 0.083713591 | 121 | 103 | 92 | 238 | 253 | 149 | 192 |
| Zfp385a | ENSMUSG00000000552 | 730.6092465 | -0.976267955 | 0.217829809 | -4.481792272 | 7.40188E-06 | 0.001704018 | 448 | 452 | 510 | 936 | 1075 | 787 | 906 |
| Skap1 | ENSMUSG00000057058 | 558.7793622 | -0.998871677 | 0.255905379 | -3.903285197 | 9.48958E-05 | 0.012743711 | 363 | 377 | 327 | 663 | 918 | 576 | 688 |
| Mttp | ENSMUSG00000028158 | 137.0157084 | -0.999828146 | 0.262945066 | -3.802422163 | 0.000143288 | 0.017762237 | 98 | 84 | 80 | 205 | 159 | 153 | 180 |
| Actg1 | ENSMUSG00000062825 | 21639.2174 | -1.002721997 | 0.211796739 | -4.734359932 | 2.19747E-06 | 0.000566597 | 12506 | 15143 | 13605 | 23615 | 31944 | 27382 | 27280 |
| Cdca7 | ENSMUSG00000055612 | 69.90376322 | -1.039467943 | 0.312609392 | -3.325133437 | 0.000883762 | 0.065570835 | 45 | 38 | 48 | 114 | 84 | 81 | 79 |
| Cadm1 | ENSMUSG00000032076 | 1698.050422 | -1.066250120 | 0.265536171 | -4.015837542 | 5.92351E-05 | 0.008811442 | 1069 | 976 | 1089 | 2882 | 2063 | 2156 | 1651 |
| Ndrg2 | ENSMUSG00000004558 | 2671.181103 | -1.082476522 | 0.336268151 | -3.219087264 | 0.001285993 | 0.083172378 | 1528 | 1378 | 1983 | 2465 | 5210 | 3035 | 3099 |
| Runx2 | ENSMUSG00000039153 | 115.684876 | -1.095545245 | 0.32316989 | -3.389997885 | 0.000698932 | 0.057270932 | 75 | 58 | 77 | 122 | 210 | 137 | 131 |
| Mocos | ENSMUSG00000039616 | 453.1324143 | -1.100357891 | 0.326652696 | -3.368586592 | 0.000755547 | 0.059635756 | 338 | 242 | 241 | 638 | 782 | 545 | 385 |
| Hmgn2 | ENSMUSG00000003038 | 1120.513022 | -1.120323826 | 0.342979646 | -3.266444054 | 0.001089073 | 0.074418723 | 578 | 496 | 937 | 1133 | 1882 | 1172 | 1644 |
| Cd24a | ENSMUSG00000047139 | 1975.508646 | -1.121037464 | 0.336667649 | -3.329804529 | 0.00086907 | 0.065139807 | 1293 | 1291 | 962 | 3213 | 2571 | 3023 | 1476 |
| 6030419C18Rik | ENSMUSG00000066607 | 146.0549978 | -1.125807903 | 0.32977766 | -3.413839205 | 0.000640544 | 0.054090976 | 97 | 73 | 111 | 167 | 250 | 141 | 203 |
| Slain1 | ENSMUSG00000055717 | 213.2783737 | -1.155338692 | 0.294941675 | -3.917176823 | 8.9592E-05 | 0.012287452 | 138 | 97 | 142 | 291 | 211 | 343 | 271 |
| Tubb6 | ENSMUSG00000001473 | 1171.653918 | -1.18940555 | 0.373297306 | -3.186215194 | 0.001441473 | 0.090798735 | 807 | 667 | 555 | 1317 | 1723 | 870 | 2262 |
| Sema5a | ENSMUSG00000022231 | 1014.235419 | -1.197500495 | 0.345278909 | -3.468212111 | 0.000523934 | 0.047791638 | 697 | 535 | 519 | 1605 | 901 | 1848 | 996 |
| Ica1l | ENSMUSG00000026018 | 32.28923334 | -1.19817087 | 0.36946706 | -3.242970751 | 0.001182904 | 0.078744991 | 19 | 17 | 19 | 44 | 36 | 44 | 46 |
| Cspg5 | ENSMUSG00000023482 | 1469.352261 | -1.241490791 | 0.34377026 | -3.611396295 | 0.000304552 | 0.031494297 | 863 | 767 | 846 | 1795 | 3099 | 1450 | 1466 |
| Dusp5 | ENSMUSG00000034765 | 137.466031 | -1.249090096 | 0.134010849 | -9.9778565 | 6.95393E-05 | 0.009961121 | 72 | 83 | 76 | 124 | 172 | 220 | 215 |
| Lipa | ENSMUSG00000024781 | 3820.166664 | -1.251554921 | 0.345312941 | -3.624407817 | 0.000289624 | 0.030218402 | 2240 | 2526 | 1641 | 3818 | 3493 | 6841 | 6183 |
| Chaf1b | ENSMUSG00000022945 | 76.68935586 | -1.255356325 | 0.390770875 | -3.212512513 | 0.001315794 | 0.084254396 | 51 | 30 | 48 | 119 | 118 | 61 | 111 |
| Neto2 | ENSMUSG00000036902 | 152.7197719 | -1.26286823 | 0.396154234 | -3.187819594 | 0.001433499 | 0.090591543 | 79 | 85 | 91 | 266 | 98 | 255 | 195 |
| Lrrn1 | ENSMUSG00000034648 | 1114.383769 | -1.272941481 | 0.386146497 | -3.296524745 | 0.00097889 | 0.070062954 | 787 | 680 | 381 | 1699 | 844 | 1849 | 1561 |
| Itm2a | ENSMUSG00000031239 | 105.0650611 | -1.282452218 | 0.386793092 | -3.315602693 | 0.000914457 | 0.066731232 | 70 | 52 | 50 | 79 | 178 | 177 | 129 |
| Fbln1 | ENSMUSG00000006369 | 4019.559425 | -1.299757973 | 0.307524869 | -4.226513376 | 2.3734E-05 | 0.00449969 | 2630 | 2294 | 1647 | 7133 | 4147 | 5746 | 4541 |
| Cenpa | ENSMUSG00000029177 | 103.0741877 | -1.329454857 | 0.390886446 | -3.401128052 | 0.000671084 | 0.055937152 | 61 | 60 | 45 | 137 | 206 | 81 | 132 |
| Pak1 | ENSMUSG00000030774 | 407.0365893 | -1.329947739 | 0.26779558 | -4.966279665 | 6.82495E-07 | 0.000203048 | 233 | 218 | 205 | 699 | 437 | 586 | 471 |
| Rad51 | ENSMUSG00000027323 | 60.49966207 | -1.353393813 | 0.426117919 | -3.176101621 | 0.001492687 | 0.093101751 | 29 | 38 | 29 | 131 | 70 | 52 | 74 |
| Man1a | ENSMUSG00000003746 | 500.0094602 | -1.359843321 | 0.405635266 | -3.352379427 | 0.000801201 | 0.061974524 | 285 | 281 | 226 | 345 | 584 | 689 | 1090 |
| Tmem132a | ENSMUSG00000024736 | 514.7244057 | -1.388574292 | 0.402652273 | -3.448569359 | 0.000563565 | 0.049940877 | 303 | 288 | 210 | 389 | 1036 | 510 | 866 |
| Dlgap5 | ENSMUSG00000037544 | 47.93097834 | -1.398117705 | 0.415800112 | -3.36247554 | 0.00077247 | 0.06036126 | 30 | 24 | 20 | 79 | 86 | 40 | 57 |
| Pla2g2f | ENSMUSG00000028749 | 528.5872363 | -1.41696053 | 0.407219338 | -3.479600298 | 0.000502162 | 0.04624198 | 259 | 384 | 169 | 589 | 886 | 967 | 446 |
| Cdkn1c | ENSMUSG00000037664 | 7443.987207 | -1.419468817 | 0.440767791 | -3.21620096 | 0.001298998 | 0.083713591 | 2778 | 3558 | 5086 | 5146 | 14666 | 7090 | 13783 |
| Adam5 | ENSMUSG00000031554 | 29.66136183 | -1.419464127 | 0.430848856 | -3.294575906 | 0.000985704 | 0.070079225 | 20 | 12 | 13 | 35 | 53 | 34 | 40 |
| Efna5 | ENSMUSG00000048915 | 221.2697193 | -1.424518045 | 0.364232825 | -3.911009514 | 9.19112E-05 | 0.012516745 | 83 | 108 | 147 | 333 | 416 | 261 | 201 |
| Gnai1 | ENSMUSG00000057614 | 552.6832287 | -1.424865593 | 0.332828563 | -4.281079665 | 1.85989E-05 | 0.00363298 | 385 | 299 | 161 | 757 | 773 | 767 | 728 |
| Rbm24 | ENSMUSG00000038132 | 4565.054604 | -1.443616081 | 0.329674828 | -4.378909033 | 1.19275E-05 | 0.00254497 | 2186 | 2554 | 2167 | 8063 | 3793 | 7778 | 5414 |
| 2810417H13Rik | ENSMUSG00000040204 | 70.81637147 | -1.444038613 | 0.427159664 | -3.380559387 | 0.000723384 | 0.058044845 | 35 | 33 | 39 | 113 | 123 | 45 | 108 |
| Ccne1 | ENSMUSG00000002068 | 54.58368896 | -1.444661106 | 0.356068352 | -4.057257818 | 4.96523E-05 | 0.00774335 | 30 | 31 | 22 | 96 | 59 | 67 | 77 |
| Ube2c | ENSMUSG00000001403 | 116.2533301 | -1.44641318 | 0.45775553 | -3.159794009 | 0.001578807 | 0.096617004 | 52 | 49 | 75 | 179 | 227 | 65 | 166 |
| Car8 | ENSMUSG00000041261 | 68.16964762 | -1.446473761 | 0.347246669 | -4.165551153 | 3.10601E-05 | 0.00546037 | 32 | 31 | 41 | 80 | 78 | 90 | 127 |
| Prkcz | ENSMUSG00000029053 | 170.1708166 | -1.44975277 | 0.408209074 | -3.551495696 | 0.000383048 | 0.038182408 | 109 | 88 | 60 | 328 | 238 | 245 | 123 |
| Pid1 | ENSMUSG00000045658 | 3544.42227 | -1.452348997 | 0.403025026 | -3.603619884 | 0.000313816 | 0.032279638 | 2099 | 1483 | 1755 | 5623 | 2089 | 5834 | 5927 |
| Rsph1 | ENSMUSG00000024033 | 128.3162066 | -1.457102518 | 0.401957274 | -3.625018412 | 0.000288941 | 0.030218402 | 84 | 44 | 65 | 111 | 175 | 158 | 262 |
| Parpbp | ENSMUSG00000035365 | 35.90603645 | -1.461106099 | 0.439483727 | -3.324596585 | 0.000885466 | 0.065570835 | 19 | 17 | 17 | 77 | 44 | 38 | 38 |
| Cdk1 | ENSMUSG00000019942 | 176.8608331 | -1.468324943 | 0.391010213 | -3.755208675 | 0.000173197 | 0.020547766 | 90 | 76 | 97 | 312 | 277 | 118 | 268 |
| Etv4 | ENSMUSG00000017724 | 162.6402483 | -1.468713891 | 0.387045466 | -3.794680518 | 0.000147834 | 0.018208968 | 90 | 81 | 72 | 224 | 348 | 195 | 129 |
| Rbfox3 | ENSMUSG00000025576 | 237.3503219 | -1.470473288 | 0.439380745 | -3.346694879 | 0.000817812 | 0.062509262 | 80 | 111 | 163 | 312 | 549 | 205 | 242 |
| Cdca8 | ENSMUSG00000028873 | 120.2738062 | -1.530180785 | 0.406273946 | -3.766376848 | 0.000165634 | 0.020018906 | 62 | 44 | 68 | 220 | 194 | 85 | 170 |
| Acot7 | ENSMUSG00000028937 | 937.6900933 | -1.534985662 | 0.377414133 | -4.0671123 | 4.75993E-05 | 0.00748354 | 448 | 509 | 393 | 1154 | 2168 | 853 | 1039 |
| Tk1 | ENSMUSG00000025574 | 92.48772311 | -1.538418464 | 0.438875773 | -3.505362019 | 0.000455987 | 0.043150363 | 59 | 30 | 45 | 179 | 95 | 77 | 164 |
| Lars2 | ENSMUSG00000035202 | 15574.33999 | -1.554442719 | 0.493167647 | -3.151955991 | 0.001621807 | 0.098315068 | 7448 | 7564 | 7162 | 8979 | 41139 | 13595 | 23133 |
| Gm37691 | ENSMUSG00000104348 | 30.33635946 | -1.556370042 | 0.451669116 | -3.445819044 | 0.000569331 | 0.049942759 | 16 | 17 | 10 | 57 | 39 | 43 | 30 |
| Gm42528 | ENSMUSG00001107134 | 118.0272115 | -1.562462007 | 0.348231952 | -4.486842249 | 7.22864E-06 | 0.001704018 | 75 | 55 | 37 | 171 | 146 | 137 | 206 |
| Kif23 | ENSMUSG00000032254 | 100.3888433 | -1.57300211 | 0.477292727 | -3.295675845 | 0.000981852 | 0.070062954 | 64 | 41 | 36 | 231 | 156 | 72 | 102 |
| Kif2c | ENSMUSG00000028678 | 48.64894974 | -1.582422605 | 0.466082862 | -3.395152953 | 0.000685903 | 0.056683703 | 27 | 29 | 13 | 99 | 59 | 43 | 72 |
| Pbk | ENSMUSG00000022033 | 136.8594079 | -1.587127904 | 0.424788957 | -3.736273924 | 0.000186767 | 0.021889117 | 87 | 55 | 49 | 303 | 148 | 118 | 197 |
| Hs3st1 | ENSMUSG00000051022 | 804.1151066 | -1.591384347 | 0.263078632 | -6.049082483 | 1.45673E-09 | 9.71388E-07 | 430 | 342 | 350 | 1068 | 870 | 1160 | 1408 |
| Clstn3 | ENSMUSG00000008153 | 214.2683954 | -1.593169908 | 0.39093414 | -4.075289784 | 4.59571E-05 | 0.007284574 | 120 | 106 | 73 | 305 | 174 | 446 | 275 |
| Hs6st2 | ENSMUSG00000062184 | 274.8881146 | -1.605418665 | 0.366840354 | -4.376341471 | 1.20688E-05 | 0.00254497 | 144 | 115 | 121 | 426 | 579 | 253 | 287 |
| Cdca3 | ENSMUSG00000023505 | 137.5048421 | -1.609150362 | 0.374109414 | -4.301282731 | 1.69812E-05 | 0.003420655 | 75 | 55 | 59 | 210 | 270 | 113 | 180 |
| Melk | ENSMUSG00000035683 | 52.42440554 | -1.619135968 | 0.510059431 | -3.174406489 | 0.001501433 | 0.093101751 | 29 | 31 | 12 | 117 | 61 | 42 | 75 |
| Csrp2 | ENSMUSG00000002186 | 1467.355439 | -1.619206593 | 0.372176539 | -4.35064122 | 1.3574E-05 | 0.002792489 | 673 | 592 | 751 | 1544 | 3218 | 1269 | 2226 |
| Lrrc2 | ENSMUSG00000032495 | 117.2170761 | -1.63081329 | 0.403977271 | -4.036893675 | 5.41636E-05 | 0.008312823 | 50 | 62 | 48 | 92 | 253 | 147 | 170 |
| Aurkb | ENSMUSG00000020897 | 78.46910206 | -1.635064103 | 0.405570846 | -4.031475925 | 5.54277E-05 | 0.008439846 | 43 | 31 | 33 | 167 | 104 | 68 | 104 |
| Cd1d2 | ENSMUSG00000041750 | 92.56257728 | -1.639432081 | 0.501473158 | -3.269231917 | 0.001078399 | 0.073950605 | 48 | 61 | 16 | 94 | 102 | 122 | 204 |
| Spc25 | ENSMUSG00000005233 | 65.57879736 | -1.645839432 | 0.498801678 | -3.299586797 | 0.000968273 | 0.069607656 | 34 | 28 | 27 | 121 | 134 | 35 | 81 |
| Bmp7 | ENSMUSG00000008999 | 234.6443484 | -1.646713201 | 0.483803717 | -3.403680343 | 0.000664845 | 0.055899018 | 84 | 127 | 107 | 114 | 325 | 388 | 499 |
| Gm10516 | ENSMUSG00000097316 | 36.98695672 | -1.650162058 | 0.415939162 | -3.967315993 | 7.26866E-05 | 0.010259955 | 19 | 14 | 16 | 61 | 36 | 45 | 67 |
| Sema4f | ENSMUSG00000000627 | 19.92794542 | -1.652579669 | 0.515397149 | -3.206419888 | 0.001343977 | 0.085775021 | 10 | 8 | 10 | 28 | 29 | 38 | 17 |
| Nudt14 | ENSMUSG00000002804 | 591.7297412 | -1.655822726 | 0.469968976 | -3.523259644 | 0.000426274 | 0.041423506 | 226 | 207 | 363 | 465 | 1567 | 597 | 717 |
| Cck | ENSMUSG00000032532 | 41.67739397 | -1.662715856 | 0.500468733 | -3.32231715 | 0.00089232 | 0.065641231 | 21 | 23 | 12 | 62 | 61 | 28 | 85 |
| Gm3912 | ENSMUSG00000092178 | 74.97512627 | -1.663201068 | 0.473077849 | -3.515702697 | 0.000438592 | 0.042196461 | 19 | 25 | 56 | 91 | 159 | 93 | 82 |
| Tmem255a | ENSMUSG00000036502 | 1414.368764 | -1.663203356 | 0.428126174 | -3.884843905 | 0.000102396 | 0.01365605 | 763 | 606 | 527 | 1969 | 817 | 2429 | 2790 |
| Knstrn | ENSMUSG00000027331 | 121.407035 | -1.665380564 | 0.400134096 | -4.162056411 | 3.15395E-05 | 0.005494689 | 68 | 58 | 36 | 249 | 186 | 116 | 137 |
| Ccna2 | ENSMUSG00000027715 | 203.0074073 | -1.675029919 | 0.422771358 | -3.962023181 | 7.43173E-05 | 0.010414119 | 117 | 83 | 70 | 459 | 254 | 156 | 282 |
| Rgs7 | ENSMUSG00000026527 | 29.38685549 | -1.705022446 | 0.508918487 | -3.350285926 | 0.000807282 | 0.062156272 | 14 | 13 | 11 | 31 | 29 | 34 | 72 |
| Tnc | ENSMUSG00000028864 | 3133.632714 | -1.724715558 | 0.343030942 | -5.027871675 | 4.95954E-07 | 0.000157225 | 1362 | 1365 | 1330 | 5190 | 4019 | 6149 | 2520 |
| Shcbp1 | ENSMUSG00000022322 | 49.78271366 | -1.725219618 | 0.495067602 | -3.48481624 | 0.000492475 | 0.045566909 | 33 | 21 | 11 | 105 | 74 | 46 | 59 |
| Stmn1 | ENSMUSG00000028832 | 927.4942236 | -1.731062993 | 0.528882904 | -3.273055302 | 0.001063917 | 0.073950605 | 362 | 346 | 489 | 1269 | 2615 | 465 | 947 |
| Necab3 | ENSMUSG00000027489 | 24.12945188 | -1.738067815 | 0.51391029 | -3.382045173 | 0.000719483 | 0.057972352 | 9 | 8 | 15 | 22 | 51 | 34 | 31 |
| Atp1a3 | ENSMUSG00000040907 | 1273.91027 | -1.740269046 | 0.521734834 | -3.335543138 | 0.000851329 | 0.064560819 | 582 | 639 | 414 | 898 | 857 | 2005 | 3523 |
| Snap91 | ENSMUSG00000033419 | 273.7113154 | -1.755340701 | 0.42494578 | -4.130740399 | 3.61597E-05 | 0.006133823 | 150 | 106 | 92 | 192 | 366 | 403 | 606 |
| Ccdc80 | ENSMUSG00000022665 | 1114.439284 | -1.762420323 | 0.476761261 | -3.696651695 | 0.000218462 | 0.024850065 | 597 | 477 | 338 | 2723 | 1008 | 758 | 1900 |
| Pdzrn4 | ENSMUSG00000036218 | 66.03969638 | -1.767586196 | 0.514084177 | -3.438320564 | 0.000585334 | 0.05082786 | 25 | 34 | 24 | 166 | 64 | 105 | 43 |
| Pttg1 | ENSMUSG00000020415 | 333.3383901 | -1.790248927 | 0.56823111 | -3.15056479 | 0.001629551 | 0.098475809 | 105 | 105 | 206 | 265 | 1028 | 225 | 400 |
| Cd44 | ENSMUSG00000005087 | 606.289961 | -1.792249411 | 0.395959063 | -4.526350269 | 6.00111E-06 | 0.001432709 | 258 | 252 | 245 | 535 | 865 | 620 | 1469 |
| Dhcr24 | ENSMUSG00000034926 | 1810.402437 | -1.7959931 | 0.451997431 | -3.973458646 | 7.08365E-05 | 0.01007232 | 1019 | 959 | 272 | 2630 | 2024 | 2756 | 3012 |
| Ccnb2 | ENSMUSG00000032218 | 128.0470097 | -1.799151485 | 0.388698524 | -4.628653301 | 3.68048E-06 | 0.000912475 | 50 | 54 | 54 | 256 | 217 | 101 | 164 |
| Gm15662 | ENSMUSG00000089855 | 2051.555146 | -1.811671052 | 0.522690821 | -3.466047191 | 0.000528171 | 0.047951936 | 791 | 863 | 874 | 1025 | 5632 | 1892 | 3284 |
| Adh6-ps1 | ENSMUSG00000090306 | 43.93793454 | -1.813313537 | 0.533059713 | -3.401708088 | 0.000669661 | 0.055937152 | 15 | 10 | 31 | 38 | 64 | 54 | 97 |
| Rpp25 | ENSMUSG00000062309 | 43.26525699 | -1.81818372 | 0.525721182 | -3.458456275 | 0.00054328 | 0.048864918 | 10 | 22 | 21 | 34 | 104 | 64 | 48 |
| Cdca2 | ENSMUSG00000048922 | 50.64718766 | -1.835622145 | 0.475937056 | -3.856859056 | 0.000114853 | 0.015006986 | 25 | 24 | 13 | 108 | 74 | 39 | 72 |
| Fam64a | ENSMUSG00000020808 | 76.37765644 | -1.841284244 | 0.437888482 | -4.204915906 | 2.61179E-05 | 0.004734332 | 42 | 25 | 25 | 121 | 122 | 56 | 143 |
| Frmd5 | ENSMUSG00000027238 | 436.7324839 | -1.844676014 | 0.529540104 | -3.487479277 | 0.000487597 | 0.04539098 | 159 | 226 | 143 | 237 | 357 | 930 | 1005 |
| Nr0b1 | ENSMUSG00000025056 | 325.7097679 | -1.850384052 | 0.488516135 | -3.787764456 | 0.000152009 | 0.018604729 | 146 | 139 | 107 | 170 | 682 | 360 | 676 |
| 1700112E06Rik | ENSMUSG00000063458 | 55.15713315 | -1.867458644 | 0.565566 | -3.301928763 | 0.000960225 | 0.069286649 | 15 | 17 | 33 | 53 | 158 | 43 | 67 |

# Table S5. Genes differentially expressed in ABC Male vs ABC Female

| Gene | ENSEMBL_Gene_ID | baseMean | log2FoldChange | lfcSE | stat | pvalue | padj | Read count 166836_No | 166838_No | 182098_Tu | 184208_Tu | 183159_B2 | BS05_Norm | 207386_No |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Emb | ENSMUSG00000021728 | 155.8826013 | -1.869491062 | 0.513453283 | -3.641014919 | 0.000271565 | 0.029078694 | 82 | 45 | 59 | 74 | 215 | 285 | 332 |
| Kif22 | ENSMUSG00000030677 | 116.7549732 | -1.875777641 | 0.453142352 | -4.13948869 | 3.48081E-05 | 0.005956802 | 57 | 45 | 37 | 231 | 221 | 74 | 153 |
| Rem2 | ENSMUSG00000022176 | 14.01369658 | -1.893969038 | 0.582350243 | -3.252285135 | 0.001144811 | 0.077406846 | 8 | 5 | 4 | 17 | 27 | 17 | 21 |
| Ncapg | ENSMUSG00000015880 | 50.83331488 | -1.897807149 | 0.540205372 | -3.513121577 | 0.000442875 | 0.042397587 | 31 | 16 | 13 | 119 | 56 | 36 | 85 |
| S100a10 | ENSMUSG00000041959 | 2051.755427 | -1.914076643 | 0.607987351 | -3.148241986 | 0.001642692 | 0.098960685 | 703 | 828 | 852 | 1137 | 7194 | 1337 | 2312 |
| Birc5 | ENSMUSG00000017716 | 97.31256043 | -1.930686711 | 0.510567521 | -3.781452272 | 0.000155916 | 0.01896293 | 35 | 35 | 42 | 125 | 267 | 60 | 118 |
| Inpp5j | ENSMUSG00000034570 | 91.70348421 | -1.940385187 | 0.442572132 | -4.38433658 | 1.1634E-05 | 0.00254497 | 30 | 22 | 53 | 201 | 98 | 136 | 103 |
| Mycbpap | ENSMUSG00000039110 | 29.52204944 | -1.982556933 | 0.590825575 | -3.355570605 | 0.000792014 | 0.061509935 | 16 | 4 | 13 | 36 | 72 | 25 | 40 |
| Gm24187 | ENSMUSG00000088609 | 453.0040442 | -1.98324731 | 0.544782099 | -3.640441408 | 0.000272171 | 0.029078694 | 146 | 167 | 192 | 204 | 1289 | 481 | 692 |
| Alyref2 | ENSMUSG00000060244 | 441.4298057 | -1.992852566 | 0.365340782 | -5.454777203 | 4.90343E-08 | 2.10717E-05 | 157 | 137 | 196 | 867 | 352 | 648 | 733 |
| Ppp1r14c | ENSMUSG00000040653 | 33.95426671 | -1.999100748 | 0.545923548 | -3.661869427 | 0.000250381 | 0.027355237 | 14 | 7 | 16 | 25 | 40 | 63 | 72 |
| Mxd3 | ENSMUSG00000021485 | 45.57574093 | -2.008695854 | 0.523632198 | -3.836081624 | 0.000125013 | 0.015969121 | 23 | 11 | 16 | 106 | 72 | 31 | 59 |
| Crybb1 | ENSMUSG00000029343 | 66.87009272 | -2.009177723 | 0.576168758 | -3.4871341 | 0.000488226 | 0.04539098 | 23 | 17 | 33 | 53 | 193 | 46 | 104 |
| Mir6236 | ENSMUSG00000098973 | 1713.063451 | -2.027893119 | 0.558517443 | -3.630850108 | 0.000282489 | 0.029851238 | 639 | 570 | 654 | 783 | 5052 | 1484 | 2810 |
| Gm24270 | ENSMUSG00000076281 | 713.6372043 | -2.034749919 | 0.553328043 | -3.67729405 | 0.000235721 | 0.026502196 | 236 | 268 | 269 | 305 | 2048 | 721 | 1148 |
| Hist1h2ap | ENSMUSG00000094777 | 110.003827 | -2.067450657 | 0.655266665 | -3.155128692 | 0.001604273 | 0.097557975 | 30 | 31 | 56 | 61 | 377 | 67 | 148 |
| Scara5 | ENSMUSG00000022032 | 105.9674828 | -2.067792976 | 0.563047735 | -3.672500302 | 0.000240189 | 0.026848395 | 64 | 36 | 12 | 102 | 255 | 132 | 140 |
| Gm24245 | ENSMUSG00000087943 | 448.185255 | -2.069268751 | 0.571070256 | -3.623492436 | 0.000290652 | 0.030218402 | 145 | 159 | 171 | 188 | 1346 | 438 | 690 |
| Shisa9 | ENSMUSG00000022494 | 140.3342313 | -2.07847188 | 0.467704046 | -4.443989519 | 8.83059E-06 | 0.002009011 | 65 | 32 | 50 | 352 | 107 | 188 | 188 |
| Adh1 | ENSMUSG00000074207 | 47241.2675 | -2.078579631 | 0.598304764 | -3.474115127 | 0.000512541 | 0.046974025 | 8318 | 6252 | 35293 | 39932 | 66282 | 74074 | 100538 |
| RP23-291B1.2 | ENSMUSG00000108434 | 36.73751222 | -2.082498913 | 0.608410613 | -3.422851064 | 0.00061968 | 0.0528984 | 12 | 6 | 21 | 79 | 76 | 25 | 39 |
| Serpinb1b | ENSMUSG00000051029 | 254.6423568 | -2.090009775 | 0.617520043 | -3.384521357 | 0.000713025 | 0.057934756 | 104 | 43 | 120 | 606 | 80 | 395 | 434 |
| D630024D03Rik | ENSMUSG00000085772 | 49.04756164 | -2.097089417 | 0.650471761 | -3.223951513 | 0.001264348 | 0.082323107 | 15 | 16 | 19 | 22 | 123 | 33 | 114 |
| Fndc7 | ENSMUSG00000045326 | 39.76457286 | -2.099099461 | 0.415743677 | -5.051187974 | 4.39071E-07 | 0.000143911 | 20 | 12 | 9 | 56 | 66 | 52 | 64 |
| Gm25911 | ENSMUSG00000088246 | 239.1612745 | -2.111669712 | 0.577107488 | -3.659057896 | 0.000253144 | 0.027501694 | 85 | 80 | 82 | 105 | 753 | 248 | 321 |
| Cenpm | ENSMUSG00000068101 | 40.6497048 | -2.13151597 | 0.480061531 | -4.440089097 | 8.99216E-06 | 0.002021982 | 13 | 13 | 15 | 64 | 84 | 29 | 66 |
| Naip5 | ENSMUSG00000071203 | 117.3526326 | -2.140966332 | 0.445596734 | -4.804717287 | 1.5497E-06 | 0.000416224 | 48 | 38 | 33 | 74 | 226 | 205 | 197 |
| Gm23935 | ENSMUSG00000076258 | 2305.92874 | -2.173982613 | 0.644946016 | -3.370797801 | 0.000749508 | 0.059401619 | 653 | 727 | 920 | 915 | 8354 | 1697 | 2875 |
| Dner | ENSMUSG00000036766 | 168.3174876 | -2.217798379 | 0.426801021 | -5.19632866 | 2.03263E-07 | 7.0191E-05 | 86 | 35 | 43 | 312 | 182 | 190 | 331 |
| Fam19a4 | ENSMUSG00000046500 | 164.3353684 | -2.228942376 | 0.439185443 | -5.075173623 | 3.87142E-07 | 0.000129079 | 41 | 73 | 45 | 337 | 336 | 184 | 136 |
| Ush1g | ENSMUSG00000045288 | 11.8689791 | -2.230086498 | 0.691576289 | -3.224642794 | 0.001261299 | 0.082323107 | 3 | 5 | 4 | 14 | 15 | 30 | 13 |
| Mmp19 | ENSMUSG00000025355 | 226.1860891 | -2.258726748 | 0.458016892 | -4.931535905 | 8.15856E-07 | 0.000235478 | 86 | 76 | 52 | 153 | 385 | 288 | 543 |
| Mmel1 | ENSMUSG00000058183 | 21.70531804 | -2.274113488 | 0.662951885 | -3.43028437 | 0.000602949 | 0.052052802 | 7 | 7 | 7 | 14 | 67 | 25 | 26 |
| Gulo | ENSMUSG00000034450 | 50.30384396 | -2.278974873 | 0.552429213 | -4.125369947 | 3.70139E-05 | 0.006224134 | 14 | 25 | 8 | 77 | 119 | 74 | 35 |
| Amhr2 | ENSMUSG00000023047 | 205.1019299 | -2.301715859 | 0.371905746 | -6.188974639 | 6.05562E-10 | 4.68414E-07 | 71 | 61 | 57 | 452 | 353 | 243 | 198 |
| Esyt3 | ENSMUSG00000037681 | 31.03648417 | -2.35340642 | 0.743123308 | -3.1669124 | 0.001540667 | 0.09482755 | 13 | 9 | 6 | 108 | 27 | 42 | 13 |
| Fmo1 | ENSMUSG00000040181 | 270.8462693 | -2.385641942 | 0.582839211 | -4.09315622 | 4.25541E-05 | 0.00685759 | 65 | 77 | 95 | 112 | 650 | 243 | 654 |
| Tmem144 | ENSMUSG00000027956 | 148.5656885 | -2.389932091 | 0.434885623 | -5.495641733 | 3.89513E-08 | 1.75172E-05 | 39 | 26 | 65 | 128 | 233 | 270 | 280 |
| Ly6k | ENSMUSG00000044678 | 489.0540166 | -2.44829952 | 0.594190934 | -4.120391911 | 3.78228E-05 | 0.006251438 | 189 | 180 | 45 | 981 | 290 | 553 | 1186 |
| Gabrg3 | ENSMUSG00000055026 | 185.1099507 | -2.456758825 | 0.294609873 | -8.339024085 | 7.49062E-17 | 1.44854E-13 | 67 | 51 | 38 | 316 | 258 | 269 | 297 |
| Vwc2 | ENSMUSG00000050830 | 15.02999312 | -2.485554985 | 0.649395463 | -3.82749053 | 0.000129456 | 0.016151143 | 4 | 6 | 3 | 31 | 20 | 29 | 13 |
| Fhdc1 | ENSMUSG00000041842 | 44.16922598 | -2.529814669 | 0.62072919 | -4.075552927 | 4.59051E-05 | 0.007284574 | 13 | 8 | 15 | 38 | 25 | 110 | 101 |
| Lingo3 | ENSMUSG00000051067 | 70.61842061 | -2.554456256 | 0.475576101 | -5.371288112 | 7.81762E-08 | 3.08525E-05 | 19 | 15 | 21 | 53 | 135 | 91 | 160 |
| Baalc | ENSMUSG00000022296 | 8.472964165 | -2.554891508 | 0.79861601 | -3.199148871 | 0.00137834 | 0.08767873 | 4 | 2 | 1 | 13 | 9 | 12 | 18 |
| Cela1 | ENSMUSG00000023031 | 633.9321016 | -2.571235783 | 0.447421654 | -5.74790192 | 9.03576E-09 | 4.72253E-06 | 166 | 136 | 195 | 479 | 1663 | 1101 | 697 |
| 2810459M11Rik | ENSMUSG00000026227 | 18.60120055 | -2.587041103 | 0.591435529 | -4.374172633 | 1.21894E-05 | 0.00254497 | 4 | 3 | 8 | 35 | 32 | 29 | 19 |
| Cdo1 | ENSMUSG00000033022 | 142.8315765 | -2.591232582 | 0.778117758 | -3.330129093 | 0.000868057 | 0.065139801 | 64 | 30 | 16 | 70 | 349 | 44 | 426 |
| Rassf10 | ENSMUSG00000098132 | 68.24363666 | -2.6120476 | 0.520193498 | -5.02129998 | 5.13229E-07 | 0.000160078 | 15 | 8 | 29 | 119 | 144 | 58 | 104 |
| Cited4 | ENSMUSG00000070803 | 46.50332177 | -2.648380369 | 0.605216973 | -4.375918865 | 1.20922E-05 | 0.00254497 | 11 | 14 | 10 | 28 | 143 | 52 | 68 |
| Cxadr | ENSMUSG00000022865 | 120.0945907 | -2.710511317 | 0.497652054 | -5.446599276 | 5.1342E-08 | 2.15837E-05 | 44 | 33 | 9 | 247 | 191 | 174 | 142 |
| Htr1b | ENSMUSG00000049511 | 154.601061 | -2.723771806 | 0.503440841 | -5.410311568 | 6.29152E-08 | 2.58663E-05 | 22 | 66 | 22 | 255 | 297 | 293 | 127 |
| 4930425O10Rik | ENSMUSG00000105838 | 15.0433991 | -2.752441472 | 0.700401513 | -3.929805149 | 8.50147E-05 | 0.011742963 | 3 | 1 | 7 | 32 | 15 | 25 | 22 |
| Egfl6 | ENSMUSG00000060402 | 2058.92027 | -2.763894532 | 0.506075537 | -5.461426858 | 4.72323E-08 | 2.07586E-05 | 500 | 673 | 260 | 5285 | 1825 | 4142 | 1728 |
| Cdh12 | ENSMUSG00000040452 | 61.23208544 | -2.77561066 | 0.526783605 | -5.268679627 | 1.37186E-07 | 4.91279E-05 | 12 | 15 | 16 | 128 | 55 | 52 | 152 |
| Ggt6 | ENSMUSG00000040471 | 17.04239719 | -2.791458036 | 0.811953755 | -3.437951999 | 0.000586132 | 0.05082786 | 5 | 4 | 3 | 7 | 59 | 17 | 24 |
| Galnt13 | ENSMUSG00000060988 | 9.884997685 | -2.800790278 | 0.883224904 | -3.171099326 | 0.001518654 | 0.093826586 | 3 | 1 | 3 | 5 | 15 | 26 | 17 |
| D430036I16Rik | ENSMUSG00000097466 | 14.10555832 | -2.813288318 | 0.724927936 | -3.880783424 | 0.000104121 | 0.013790978 | 2 | 5 | 3 | 21 | 11 | 36 | 21 |
| D430041D05Rik | ENSMUSG00000068373 | 155.8359259 | -2.860962501 | 0.504460578 | -5.671330184 | 1.41693E-08 | 7.02579E-06 | 34 | 32 | 36 | 76 | 310 | 283 | 320 |
| Mfsd4 | ENSMUSG00000059149 | 139.5038219 | -2.895041787 | 0.514953987 | -5.621942605 | 1.88822E-08 | 9.1286E-06 | 28 | 37 | 24 | 72 | 249 | 238 | 328 |
| Cd1d1 | ENSMUSG00000028076 | 580.9496784 | -2.897799452 | 0.6037118 | -4.799971525 | 1.58688E-06 | 0.000420372 | 112 | 113 | 147 | 240 | 1913 | 531 | 1012 |
| Sstr2 | ENSMUSG00000047904 | 22.61254183 | -2.914115423 | 0.900577733 | -3.235828864 | 0.001212901 | 0.079779168 | 7 | 6 | 2 | 43 | 9 | 83 | 8 |
| Mme | ENSMUSG00000027820 | 111.7661109 | -2.923466112 | 0.553890718 | -5.278055792 | 1.30562E-07 | 4.76378E-05 | 17 | 15 | 38 | 76 | 218 | 291 | 127 |
| 4930486L24Rik | ENSMUSG00000050345 | 79.45703757 | -2.926217556 | 0.391501956 | -7.474336994 | 7.75941E-14 | 9.37821E-11 | 17 | 12 | 20 | 130 | 83 | 146 | 147 |
| Cdh9 | ENSMUSG00000025370 | 15.46659329 | -2.948628556 | 0.741230012 | -3.978021004 | 6.94912E-05 | 0.009961121 | 3 | 5 | 2 | 10 | 24 | 40 | 24 |
| Dsp | ENSMUSG00000054889 | 330.654795 | -2.984161892 | 0.480539955 | -6.210018259 | 5.29784E-10 | 4.65681E-07 | 55 | 120 | 25 | 630 | 520 | 440 | 524 |
| Epn3 | ENSMUSG00000010080 | 95.20776037 | -3.010785114 | 0.493756336 | -6.097714386 | 1.07596E-09 | 7.43102E-07 | 24 | 25 | 8 | 165 | 176 | 80 | 189 |
| Hrasls | ENSMUSG00000022525 | 22.52442587 | -3.108111811 | 0.785790595 | -3.955394517 | 7.64085E-05 | 0.01063012 | 2 | 3 | 8 | 11 | 68 | 25 | 41 |
| Gm973 | ENSMUSG00000047361 | 40.01581884 | -3.120559515 | 0.83263813 | -3.747797997 | 0.000178394 | 0.021035243 | 7 | 8 | 8 | 11 | 160 | 23 | 64 |
| Fam84a | ENSMUSG00000020607 | 50.8749915 | -3.137788083 | 0.589472626 | -5.323042909 | 1.02046E-07 | 3.86933E-05 | 10 | 9 | 10 | 24 | 108 | 90 | 106 |
| Dbx2 | ENSMUSG00000045608 | 60.85826544 | -3.170584977 | 0.78730173 | -4.027153574 | 5.64562E-05 | 0.008529291 | 4 | 9 | 20 | 253 | 48 | 42 | 51 |
| Unc5d | ENSMUSG00000063626 | 21.46048215 | -3.183242073 | 0.655091593 | -4.859232061 | 1.17842E-06 | 0.000320962 | 4 | 6 | 2 | 44 | 24 | 49 | 21 |
| Gm26035 | ENSMUSG00000064999 | 13.83528122 | -3.309106515 | 0.987981189 | -3.349361861 | 0.000809979 | 0.062156272 | 4 | 2 | 1 | 8 | 57 | 7 | 17 |
| Retn | ENSMUSG00000012705 | 75.64858107 | -3.335637993 | 0.997745254 | -3.343176007 | 0.000828253 | 0.063058134 | 29 | 5 | 3 | 36 | 305 | 12 | 140 |
| Bmp3 | ENSMUSG00000029335 | 10.68718976 | -3.433998985 | 0.89541627 | -3.835086652 | 0.00012552 | 0.015969121 | 2 | 2 | 1 | 7 | 25 | 14 | 23 |
| Sgk2 | ENSMUSG00000017868 | 6.718800306 | -3.527832479 | 1.071726947 | -3.291726955 | 0.000995742 | 0.070276153 | 2 | 1 | 0 | 7 | 8 | 14 | 15 |
| Serpinb1a | ENSMUSG00000044734 | 296.9286997 | -3.606091796 | 0.653871711 | -5.514983651 | 3.48812E-08 | 1.6452E-05 | 38 | 24 | 58 | 109 | 775 | 271 | 802 |
| Eps8l1 | ENSMUSG00000006154 | 99.81279086 | -3.609712235 | 1.01889335 | -3.542777305 | 0.000395937 | 0.039064428 | 9 | 16 | 16 | 10 | 429 | 205 | 14 |
| Nxph1 | ENSMUSG00000046178 | 11.91981497 | -3.624089067 | 0.909661085 | -3.983999233 | 6.77651E-05 | 0.009894621 | 1 | 1 | 3 | 16 | 17 | 36 | 10 |
| Nell2 | ENSMUSG00000022454 | 33.59405548 | -3.631792508 | 0.614920855 | -5.906113737 | 3.50272E-09 | 2.0526E-06 | 3 | 8 | 3 | 43 | 32 | 65 | 82 |
| Frzb | ENSMUSG00000027004 | 2394.656272 | -3.647256499 | 0.486309683 | -7.499864943 | 6.38836E-14 | 8.82415E-11 | 423 | 268 | 255 | 1758 | 2825 | 4003 | 7231 |
| Sbsn | ENSMUSG00000046056 | 556.0781164 | -3.716074653 | 0.756348567 | -4.913177358 | 8.96121E-07 | 0.000251148 | 63 | 52 | 95 | 120 | 2270 | 424 | 869 |
| Ms4a10 | ENSMUSG00000024731 | 40.48393498 | -3.901047176 | 1.04714372 | -3.725417152 | 0.000194992 | 0.02257943 | 5 | 2 | 7 | 3 | 178 | 20 | 69 |
| Elfn1 | ENSMUSG00000048988 | 58.28687739 | -3.915241641 | 0.627480592 | -6.239621894 | 4.3863E-10 | 4.03915E-07 | 8 | 2 | 10 | 124 | 130 | 38 | 97 |
| Mgat4c | ENSMUSG00000019888 | 391.9290944 | -3.961091899 | 0.671626453 | -5.897760404 | 3.68468E-09 | 2.09572E-06 | 52 | 37 | 37 | 333 | 239 | 335 | 1710 |
| Lhx3 | ENSMUSG00000026934 | 21.1282811 | -3.96239845 | 0.846496986 | -4.680936275 | 2.85568E-06 | 0.00072662 | 3 | 3 | 1 | 19 | 78 | 23 | 22 |
| Atp1a4 | ENSMUSG00000007107 | 47.57870302 | -4.043935558 | 0.959480245 | -4.21471447 | 2.50094E-05 | 0.004650307 | 10 | 2 | 3 | 15 | 183 | 15 | 106 |
| Dnmt3l | ENSMUSG00000000730 | 52.29392544 | -4.087592771 | 0.825776346 | -4.949999825 | 7.42135E-07 | 0.000217446 | 5 | 3 | 8 | 11 | 178 | 62 | 100 |
| RP23-430B14.2 | ENSMUSG00000108801 | 6.77194221 | -4.146847862 | 1.270413603 | -3.264171489 | 0.001097847 | 0.074754099 | 1 | 1 | 0 | 4 | 11 | 13 | 18 |
| Hydin | ENSMUSG00000059854 | 10.75239011 | -4.249788431 | 1.160072722 | -3.663381053 | 0.000248908 | 0.027355237 | 0 | 3 | 0 | 31 | 5 | 23 | 13 |
| Cryba4 | ENSMUSG00000066975 | 1536.181555 | -4.255609669 | 1.253152049 | -3.39592444 | 0.000683972 | 0.056683703 | 175 | 165 | 66 | 256 | 8685 | 933 | 473 |
| Cst8 | ENSMUSG00000027442 | 61.79887059 | -4.342032325 | 1.02992163 | -4.215886141 | 2.48799E-05 | 0.004650307 | 5 | 6 | 5 | 9 | 286 | 11 | 111 |
| Serpinb1c | ENSMUSG00000079049 | 7.760513366 | -4.350336803 | 1.187995526 | -3.661913458 | 0.000250338 | 0.027355237 | 1 | 0 | 1 | 14 | 11 | 10 | 18 |
| 1700028P14Rik | ENSMUSG00000033053 | 8.383009338 | -4.444249902 | 1.255353234 | -3.54023854 | 0.000399766 | 0.039241958 | 0 | 0 | 2 | 10 | 27 | 8 | 12 |
| Fam169a | ENSMUSG00000041817 | 41.5364635 | -4.456711 | 0.764907762 | -5.826468524 | 5.66125E-09 | 3.12792E-06 | 4 | 3 | 3 | 22 | 39 | 115 | 105 |
| Vsig8 | ENSMUSG00000049598 | 12.63372062 | -4.458341732 | 1.290762909 | -3.454036137 | 0.000552263 | 0.049442912 | 2 | 0 | 1 | 2 | 55 | 10 | 19 |
| D730001G18Rik | ENSMUSG00000101026 | 4.76981677 | -4.563448848 | 1.433532713 | -3.183358709 | 0.001455771 | 0.091401649 | 0 | 1 | 0 | 6 | 4 | 8 | 14 |
| Col5a3 | ENSMUSG00000004098 | 596.4902493 | -4.59997774 | 0.553841691 | -8.305582285 | 9.93311E-17 | 1.60072E-13 | 43 | 31 | 50 | 346 | 1400 | 594 | 1711 |
| Entpd3 | ENSMUSG00000041608 | 15.26594916 | -4.759088498 | 1.174991191 | -4.050314849 | 5.1148E-05 | 0.007912797 | 0 | 1 | 2 | 6 | 12 | 30 | 56 |
| Vnn3 | ENSMUSG00000020010 | 93.77038807 | -4.788960059 | 0.795266818 | -6.021828087 | 1.72458E-09 | 1.04219E-06 | 5 | 8 | 5 | 25 | 352 | 87 | 176 |
| Mapk13 | ENSMUSG00000004864 | 707.4258601 | -4.808167229 | 0.731302538 | -6.574799043 | 4.87189E-11 | 4.71063E-08 | 25 | 42 | 62 | 179 | 2716 | 649 | 1279 |
| C3 | ENSMUSG00000024164 | 4137.042901 | -5.231474988 | 0.844717955 | -6.19316182 | 5.89691E-10 | 4.68414E-07 | 284 | 140 | 143 | 1546 | 19487 | 885 | 6474 |
| Gm15883 | ENSMUSG00000086868 | 4.05915213 | -5.312743487 | 1.542097133 | -3.445141925 | 0.00057076 | 0.049942759 | 0 | 0 | 0 | 2 | 12 | 8 | 6 |

**Table S5. Genes differentially expressed in ABC Male vs ABC Female**

| Gene | ENSEMBL_Gene_ID | baseMean | log2FoldChange | lfcSE | stat | pvalue | padj | 166836_No | 166838_No | 182098_Tu | 184208_Tu | 183159_B2 | BS05_Norm | 207386_No |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Apoc1 | ENSMUSG00000040564 | 486.444706 | -5.378689002 | 1.650847625 | -3.258137772 | 0.001121459 | 0.076093975 | 6 | 48 | 7 | 543 | 202 | 3 | 2597 |
| Cidea | ENSMUSG00000024526 | 60.85767602 | -5.767356799 | 1.566332448 | -3.682077075 | 0.000231341 | 0.026161876 | 3 | 1 | 2 | 3 | 291 | 7 | 119 |
| Folr1 | ENSMUSG00000001827 | 21.63718195 | -5.856602024 | 1.498465116 | -3.908400645 | 9.29091E-05 | 0.012564175 | 2 | 0 | 0 | 6 | 107 | 3 | 33 |
| Orm2 | ENSMUSG00000061540 | 6.321953858 | -5.945781945 | 1.675771518 | -3.548086288 | 0.000388041 | 0.038481735 | 0 | 0 | 0 | 6 | 29 | 1 | 8 |
| Orm1 | ENSMUSG00000039196 | 23.08098032 | -5.947564422 | 1.582827191 | -3.757557652 | 0.00017158 | 0.02048155 | 0 | 0 | 2 | 8 | 118 | 1 | 33 |
| Adig | ENSMUSG00000044405 | 36.45441964 | -6.032101992 | 1.810896968 | -3.331002315 | 0.000865339 | 0.065139807 | 3 | 0 | 0 | 9 | 172 | 5 | 66 |
| Oxtr | ENSMUSG00000049112 | 315.5640977 | -6.214215352 | 0.622140777 | -9.988439241 | 1.71257E-23 | 4.73109E-20 | 4 | 13 | 5 | 175 | 698 | 593 | 721 |
| Txndc2 | ENSMUSG00000050612 | 29.00536007 | -6.28462254 | 1.248323449 | -5.03445044 | 4.79222E-07 | 0.000154453 | 0 | 1 | 1 | 12 | 108 | 38 | 42 |
| Mgst2 | ENSMUSG00000074604 | 564.4611447 | -6.825243121 | 0.707233244 | -9.650625415 | 4.88568E-22 | 1.18099E-18 | 8 | 11 | 7 | 327 | 2438 | 669 | 492 |
| Ucp1 | ENSMUSG00000031710 | 46.68430773 | -6.982986604 | 2.210874044 | -3.158473284 | 0.001585978 | 0.096749689 | 2 | 0 | 0 | 2 | 180 | 2 | 141 |
| 1700125H20Rik | ENSMUSG00000018479 | 25.39644423 | -6.995469086 | 1.472460062 | -4.750871867 | 2.02541E-06 | 0.00052929 | 0 | 0 | 1 | 5 | 104 | 32 | 36 |
| Ly6h | ENSMUSG00000022577 | 13.21714983 | -7.015838199 | 1.538218648 | -4.561014918 | 5.0907E-06 | 0.001246125 | 0 | 0 | 0 | 6 | 66 | 10 | 12 |
| Cyp2f2 | ENSMUSG00000052974 | 1249.062152 | -7.642574958 | 0.710533984 | -10.75610053 | 5.54679E-27 | 2.14528E-23 | 17 | 10 | 6 | 530 | 2029 | 1242 | 4909 |
| Xist | ENSMUSG00000086503 | 979.6871197 | -9.79681836 | 0.793335221 | -12.34890133 | 4.93812E-35 | 4.77467E-31 | 2 | 1 | 3 | 3453 | 1356 | 1215 | 828 |
| Akr1d1 | ENSMUSG00000038641 | 2196.634761 | -14.40659791 | 1.361935368 | -10.57803347 | 3.76783E-26 | 1.21437E-22 | 0 | 0 | 0 | 749 | 7326 | 2999 | 4302 |

**Table S6. GSEA report for male ABC_Hoxb9 tumours compared to male ABC tumours**

| NAME | SIZE | ES | NES | NOM p-val | FDR q-val | FWER p-val | RANK AT MAX |
|------|------|-----|-----|-----------|-----------|------------|-------------|
| HALLMARK_G2M_CHECKPOINT | 189 | 0.6468555 | 1.697571 | 0 | 0.04399998 | 0 | 2163 |
| HALLMARK_MYC_TARGETS_V2 | 57 | 0.64348674 | 1.5850172 | 0 | 0.06618747 | 0.115 | 3399 |
| HALLMARK_E2F_TARGETS | 191 | 0.62671053 | 1.5686973 | 0 | 0.06945833 | 0.163 | 2932 |
| HALLMARK_SPERMATOGENESIS | 95 | 0.4395258 | 1.4903258 | 0.17158672 | 0.20406246 | 0.543 | 1001 |
| HALLMARK_MYC_TARGETS_V1 | 191 | 0.51113737 | 1.4716262 | 0 | 0.18284994 | 0.543 | 4372 |
| HALLMARK_TNFA_SIGNALING_VIA_NFKB | 183 | 0.3626254 | 1.3311056 | 0 | 0.34334636 | 0.808 | 1244 |
| HALLMARK_TGF_BETA_SIGNALING | 52 | 0.30804762 | 1.1985636 | 0.102345414 | 0.6009473 | 0.947 | 2640 |
| HALLMARK_REACTIVE_OXIGEN_SPECIES_PATHWAY | 45 | 0.4346205 | 1.18057 | 0.31212723 | 0.59848905 | 0.947 | 4305 |
| HALLMARK_KRAS_SIGNALING_DN | 123 | 0.31556696 | 1.1704465 | 0.17073171 | 0.5797694 | 1 | 1550 |
| HALLMARK_MITOTIC_SPINDLE | 198 | 0.45075125 | 1.1701288 | 0.10331384 | 0.5261925 | 1 | 1201 |
| HALLMARK_UV_RESPONSE_UP | 140 | 0.2766306 | 1.1253206 | 0.11044177 | 0.5694552 | 1 | 3332 |
| HALLMARK_OXIDATIVE_PHOSPHORYLATION | 189 | 0.46338195 | 1.1154771 | 0.30604288 | 0.53661823 | 1 | 4469 |
| HALLMARK_FATTY_ACID_METABOLISM | 142 | 0.30793777 | 1.1061171 | 0.41351888 | 0.50957435 | 1 | 2996 |
| HALLMARK_ESTROGEN_RESPONSE_LATE | 172 | 0.28641844 | 1.0496027 | 0.3592233 | 0.5719434 | 1 | 1172 |
| HALLMARK_GLYCOLYSIS | 180 | 0.19225512 | 0.95989305 | 0.52642274 | 0.70349604 | 1 | 2646 |
| HALLMARK_PI3K_AKT_MTOR_SIGNALING | 99 | 0.21583931 | 0.9114872 | 0.62355214 | 0.7756091 | 1 | 1283 |
| HALLMARK_DNA_REPAIR | 136 | 0.2382726 | 0.8295817 | 0.6276803 | 0.8557615 | 1 | 4594 |
| HALLMARK_P53_PATHWAY | 187 | 0.18670382 | 0.827854 | 0.6312849 | 0.81244224 | 1 | 3007 |
| HALLMARK_ADIPOGENESIS | 187 | 0.17481901 | 0.7299593 | 0.9116466 | 0.8920309 | 1 | 4100 |
| HALLMARK_ALLOGRAFT_REJECTION | 169 | 0.16238579 | 0.46229643 | 0.915547 | 0.987912 | 1 | 1807 |

**Table S7. Pearson *r* values of HOX gene expression correlation with the expression of other HOX genes and proliferation markers in TCGA ACC samples**

Table S8. Pearson p values of HOX gene expression correlation with the expression of other HOX genes and proliferation markers in TCGA ACC samples