

**Table S6.** List of differentially expressed genes involved in cell proliferation in the zebrafish fast muscle in response to exercise.

| ENSEMBL ID          | Gene name | Fold Change | ENSEMBL ID          | Gene name | Fold Change |
|---------------------|-----------|-------------|---------------------|-----------|-------------|
| ENSDARG00000014031  | ABCC2     | 2.072       | ENSDARG00000007825  | MAP2K1    | 2.304       |
| ENSDARG00000016918  | ACE2      | 1.605       | ENSDARG00000027552  | MAPK1     | 2.995       |
| ENSDARG00000053493  | ALDH1A2   | -1.766      | ENSDARG00000000857  | MAPK14    | -2.781      |
| ENSDARG00000054755  | ALOX5AP   | 2.822       | ENSDARG00000070573  | MAPK3     | 1.405       |
| ENSDARG00000053906  | ANGPT2    | 3.902       | ENSDARG00000079504  | MFN2      | 2.424       |
| ENSDARG00000040295  | APOE      | -1.906      | ENSDARG00000071336  | MIF       | -1.495      |
| ENSDARG00000019995  | BMP4      | 2.375       | ENSDARG00000008388  | MMP14     | 2.687       |
| ENSDARG00000053617  | CAMK2A    | 1.977       | ENSDARG00000002077  | MNAT1     | -1.469      |
| ENSDARG00000014273  | CAMK2D    | 1.974       | ENSDARG00000069133  | MSTN      | 4.409       |
| ENSG00000162909     | CAPN2     | 2.920       | ENSDARG00000053666  | MYB       | 2.888       |
| ENSDARG00000052004  | CAV1      | 2.317       | ENSDARG00000007241  | MYC       | -2.267      |
| ENSG00000115355     | CCDC88A   | 4.979       | ENSDARG00000006837  | MYCN      | 2.067       |
| ENSDARG00000011094  | CCNA2     | 4.132       | ENSDARG00000010169  | MYD88     | 2.564       |
| ENSDARG000000035750 | CCND1     | 1.863       | ENSDARG00000012378  | NAA35     | 1.577       |
| ENSDARG00000017602  | CCNG2     | 2.293       | ENSDARG00000030598  | NAMPT     | -2.451      |
| ENSDARG00000068214  | CCNI      | 1.385       | ENSDARG00000020872  | NFAT5     | 1.587       |
| ENSDARG00000034146  | CCNK      | -1.689      | ENSDARG00000036168  | NFATC1    | 2.762       |
| ENSG00000008128     | CDK11     | -1.567      | ENSDARG00000076297  | NFATC3    | 1.919       |
| ENSDARG00000063726  | CDK12     | 2.259       | ENSG00000183691     | NOG       | 4.897       |
| ENSDARG00000032072  | CDK16     | 2.979       | ENSDARG00000026925  | NOS2      | 1.851       |
| ENSDARG00000051916  | CDK7      | -1.458      | ENSG00000148400     | NOTCH1    | 2.600       |
| ENSDARG00000016496  | CDK8      | -2.007      | ENSDARG00000010250  | NQO1      | 1.935       |
| ENSDARG000000044811 | CDK9      | 1.839       | ENSDARG00000000796  | NR4A1     | 2.189       |
| ENSDARG00000010878  | CDKN1C    | 2.091       | ENSG00000153234     | NR4A2     | 1.781       |
| ENSDARG000000087303 | CEBPD     | 1.903       | ENSDARG00000055854  | NR4A3     | 1.957       |
| ENSDARG00000025679  | COMT      | 2.255       | ENSDARG00000007377  | ODC1      | -4.792      |
| ENSDARG00000053586  | CREB1     | -1.313      | ENSDARG00000042845  | OXT       | 4.038       |
| ENSDARG00000014571  | CTNNB1    | -1.241      | ENSG00000182752     | PAPPA     | 3.094       |
| ENSDARG00000038954  | CTNNBIP1  | -1.933      | ENSDARG00000052025  | POMGNT1   | -1.787      |
| ENSDARG000000035564 | DGCR8     | -1.788      | ENSDARG000000061219 | POSTN     | 1.888       |
| ENSDARG00000070463  | E2F3      | 1.823       | ENSDARG00000091024  | PPARA     | 2.766       |
| ENSDARG00000036912  | EDN1      | 3.105       | ENSDARG00000044525  | PPARD     | 3.189       |
| ENSDARG00000013847  | EGFR      | -2.134      | ENSDARG00000042247  | PPIA      | -1.630      |
| ENSG00000066044     | ELAVL1    | -2.341      | ENSDARG00000020656  | PRKG1     | 2.535       |
| ENSDARG00000004111  | ESR1      | 1.940       | ENSDARG00000056623  | PTEN      | -1.535      |
| ENSDARG000000036041 | F2        | 6.614       | ENSDARG000000069439 | PTGDS     | 3.184       |
| ENSDARG00000021013  | F3        | 6.286       | ENSDARG00000020334  | PTPN11    | 1.135       |
| ENSDARG00000058115  | FGFR2     | 4.047       | ENSDARG00000029663  | RAB1A     | -1.808      |
| ENSDARG00000014181  | FOXP1     | 2.497       | ENSDARG00000078653  | RALBP1    | -1.691      |
| ENSG00000134363     | FST       | 2.166       | ENSDARG00000034893  | RARA      | 1.927       |
| ENSDARG00000077111  | FZD4      | 2.116       | ENSDARG00000045636  | RBL2      | 1.410       |
| ENSDARG000000053326 | GNA11     | 5.086       | ENSDARG00000077505  | RBP4      | 1.899       |
| ENSG00000156052     | GNAQ      | 3.248       | ENSDARG00000070047  | RGS4      | 1.545       |
| ENSG00000198873     | GRK5      | 2.978       | ENSDARG00000094673  | RHOA      | -1.825      |
| ENSG00000197921     | HES5      | 2.113       | ENSG00000134318     | ROCK2     | -1.610      |
| ENSDARG00000070538  | HEY1      | 1.782       | ENSDARG00000002006  | RXRβ      | 1.792       |
| ENSDARG00000013441  | HEY2      | 2.196       | ENSDARG000000042690 | S1PR1     | 2.034       |
| ENSDARG00000001975  | HSD11B2   | 1.714       | ENSDARG00000008188  | SF1       | -1.395      |
| ENSDARG00000056160  | HSPD1     | -3.237      | ENSDARG00000068567  | SHH       | 3.784       |
| ENSDARG00000054823  | ID3       | -2.390      | ENSDARG00000077226  | SMARCA4   | 3.979       |
| ENSDARG00000027423  | IGF1R     | 2.532       | ENSDARG00000088347  | SP1       | 1.763       |
| ENSDARG00000018643  | IGF2      | 1.613       | ENSDARG00000019353  | SPARC     | 2.589       |
| ENSDARG00000038666  | IGFBP1    | 1.892       | ENSDARG00000055588  | STAT5B    | 1.968       |
| ENSDARG00000014859  | IGFBP3    | 1.661       | ENSG00000089225     | TBX5      | 1.742       |
| ENSDARG00000033727  | IL12B     | 3.681       | ENSDARG00000034718  | TFPI      | 2.035       |
| ENSDARG00000056964  | ILK       | -1.538      | ENSDARG00000041502  | TGFB1     | 1.706       |
| ENSDARG00000010657  | IRAK4     | -2.680      | ENSG00000137462     | TLR2      | 2.268       |
| ENSDARG00000032768  | IRF1      | 2.232       | ENSG00000041982     | TNC       | 2.531       |
| ENSDARG00000053255  | ITGB1     | -1.702      | ENSDARG00000018569  | TNFRSF1A  | -1.346      |
| ENSDARG00000074378  | JUNB      | -2.259      | ENSDARG00000035559  | TP53      | 2.532       |
| ENSG00000160145     | KALRN     | 3.395       | ENSDARG00000028058  | TRAF6     | 10.775      |
| ENSDARG00000056043  | LAMA1     | 2.179       | ENSDARG00000031435  | TXN       | -1.896      |
| ENSDARG00000042561  | LPAR2     | 5.502       | ENSDARG00000020008  | VCP       | -1.820      |
| ENSDARG00000029146  | LRP1      | -2.220      | ENSDARG00000042642  | WTAP      | -1.220      |