**Supplemental Table 4: List of primers, antibodies, reagents, R packages, and public databases used in the present study.**

|  |  |  |  |
| --- | --- | --- | --- |
|  |   |   |   |
| **qPCR-miRNAs primers** |   |   |
| **miRNA** | **Supplier** | **Reference** |   |
| miR-433-3p | Thermo Fisher | 001028 |   |
| miR-127-3p | Thermo Fisher | 000452 |   |
| miR-379-5p | Thermo Fisher | 001138 |   |
| miR-411-5p | Thermo Fisher | 001610 |   |
| miR-494-3p | Thermo Fisher | 002365 |   |
| miR-543-3p | Thermo Fisher | 001298 |   |
| miR-495-3p | Thermo Fisher | 001663 |   |
| miR-381-3p | Thermo Fisher | 000571 |   |
| miR-487b-3p | Thermo Fisher | 001285 |   |
| miR-431-5p | Thermo Fisher | 001979 |   |
| miR-134-5p | Thermo Fisher | 001186 |   |
| miR-370-3p | Thermo Fisher | 002275 |   |
| miR-299a-5p | Thermo Fisher | 000600 |   |
| miR-541-5p | Thermo Fisher | 002562 |   |
| miR-409-3p | Thermo Fisher | 002332 |   |
| miR-410-3p | Thermo Fisher | 001274 |   |
| miR-337-5p | Thermo Fisher | 002515 |   |
| U6 | Thermo Fisher | 001973 |   |
| miR-93-5p | Thermo Fisher | 001090 |   |
|   |   |   |   |
|  |  |  |
| **qPCR-GE primers (mmu) SYBR** |   |   |
| **Targets** | **Forward** | **Reverse** |   |
| Meg3 | TTGCACATTTCCTGTGGGAC | AAGCACCATGAGCCACTAGG |   |
| Rian | CGTGTGTGTGTGTGTGTGGT | GCCAAGGTCTCTACCAGCAG |   |
| Mirg | GGCAAGGTCTAGGATGGACA | CGCCAGCTTCTGAATACTCC |   |
| Dlk1 | GACCTGGAGAAAGGCCAGTA | AGGGAGAACCATTGATCACG |   |
| Sar1b | TTCCTTGGATTGGATAATGCCG | GCCAGCAATAGTAAGCTCTTCTG |   |
| Bnip3 | TCCTGGGTAGAACTGCACTTC | GCTGGGCATCCAACAGTATTT |   |
| Hsd17b4 | AGGGGACTTCAAGGGAATTGG | GCCTGCTTCAACTGAATCGTAA |   |
| Cycs | CCAAATCTCCACGGTCTGTTC | ATCAGGGTATCCTCTCCCCAG |   |
| Pex19 | GACAGCGAGGCTACTCAGAG | GCCCGACAGATTGAGAGCA |   |
| Uqcc | TTGCTGGTGCGAGTCCTTAG | GTGTCCGCTCCAACAGTCT |   |
| Timm44 | CTAGGCAGCGGAATCCAATTT | GCAAGCCTGACAAAAACCCTTT |   |
| Ndufs1 | AGGATATGTTCGCACAACTGG | TCATGGTAACAGAATCGAGGGA |   |
| Cs | GGACAATTTTCCAACCAATCTGC | TCGGTTCATTCCCTCTGCATA |   |
| Gpd2 | GAAGGGGACTATTCTTGTGGGT | GGATGTCAAATTCGGGTGTGT |   |
| Slc25a20 | GACGAGCCGAAACCCATCAG | AGTCGGACCTTGACCGTGT |   |
| Rplp0 | CTCCAAGCAGATGCAGCAGA | ATAGCCTTGCGCATCATGGT |   |
|   |   |   |   |
| **qPCR-GE primers (hsa)** |   |   |
| **Targets** | **Forward** | **Reverse** |   |
| Ndufs1 | TTAGCAAATCACCCATTGGACTG | CCCCTCTAAAAATCGGCTCCTA |   |
| Ndufv1 | AGGATGAAGACCGGATTTTCAC | CAGTCACCTCGACTCAGGGA |   |
| Ndufb4 | ATGTCGTTCCCAAAGTATAAGCC | GAAGCAGGTACTCTCGTTTCAG |   |
| Ndufa9 | GTCACGTTCTGCCATTACTGC | GGTGGTTGACAACATATCGCC |   |
| Ndufb2 | GGAGGCCGCCTTTTCAGAA | GGAAGGATCAGGATACGGAAAGT |   |
| Ndufb11 | CGTCCGCTGGGAATCTAGC | ACGGGGTCCTTGTCATAACCA |   |
| Ndufs2 | GTCCGATTGCCGATTCAGC | GCTTGGGTACATAACAGCTCC |   |
| Mt-ND1 | CCACCTCTAGCCTAGCCGTTTA | GGGTCATGATGGCAGGAGTAAT |   |
| Mt-ND6 | CAAACAATGTTCAACCAGTAACCACTAC | ATATACTACAGCGATGGCTATTGAGGA |   |
| Sdha | CAAACAGGAACCCGAGGTTTT | CAGCTTGGTAACACATGCTGTAT |   |
| Shdb | ACAGCTCCCCGTATCAAGAAA | GCATGATCTTCGGAAGGTCAA |   |
| Sdhc | GAGAAGCTCCAGAGCCTTTTAAAGA | CAACTCCCAGTCCCACTGAAG |   |
| Sdhd | ATTTCTTCAGGACCGACCTATCC | CAGCCTTGGAGCCAGAATG |   |
| Uqcrfs1 | CTGAATACCGCCGCCTTGAA | ATGCGACACCCACAGTAGTTA |   |
| Uqcrc1 | GGGGCACAAGTGCTATTGC | GTTGTCCAGCAGGCTAACC |   |
| Uqcrb | GGTAAGCAGGCCGTTTCAG | AGGTCCAGTGCCCTCTTAATG |   |
| Uqcrq | CGCGAGTTTGGGAATCTGAC | TAGTGAAGACGTGCGGATAGG |   |
| Uqcrc2 | TTCAGCAATTTAGGAACCACCC | GGTCACACTTAATTTGCCACCAA |   |
| Mt-CYB | ATCACTCGAGACGTAAATTATGGCT | TGAACTAGGTCTGTCCCAATGTATG |   |
| Cox7b | CTTGGTCAAAAGCGCACTAAATC | AAAATCAGGTGTACGTTTCTGGT |   |
| Cox5a | ATCCAGTCAGTTCGCTGCTAT | CCAGGCATCTATATCTGGCTTG |   |
| Cox4l1 | GAGAAAGTCGAGTTGTATCGCA | GCTTCTGCCACATGATAACGA |   |
| Cox6a1 | AGTTGGTGTGTCCTCGGTTTC | GTGAGAGTCTTCCACATGCGA |   |
| Cox7a1 | CCGCTTTCAGAACCGAGTG | CCCTTCAGGTACAACGGGA |   |
| Mt-COI | GACGTAGACACACGAGCATATTTCA | AGGACATAGTGGAAGTGAGCTACAAC |   |
| Atp5f1 | AGGTCCAGGGGTATTGCAG | TCCTCAGGGATCAGTCCATAAC |   |
| Atp5e | GTGGCCTACTGGAGACAGG | GGAGTATCGGATGTAGCTGAGT |   |
| Atp5a1 | GTATTGCCCGCGTACATGG | AGGACATACCCTTTAAGCCTGA |   |
| Atp5b | CCTGTCAGGGACTATGCGG | TCCTTACTGTGCTCTCACCCA |   |
| Atp5c1 | TCACCAGGAGACTAAAGTCCATC | TATTTTGCTGCCGCTACCATT |   |
| Mt-ATP6 | TAGCCATACACAACACTAAAGGACGA | GGGCATTTTTAATCTTAGAGCGAAA |   |
| Gpd2 | GGCAGTGAAAGGGACGATTCT | GCTGCTTTAACATAGGCCAGGT |   |
| Bnip3 | CAGGGCTCCTGGGTAGAACT | CTACTCCGTCCAGACTCATGC |   |
| Slc25a20 | GACCAGCCAAAACCCATCAG | AGAGGGTGACCGACGAACA |   |
| Sar1b | TACAGTGGTTTCAGCAGTGTG | AGTGGGATGTAATGTTGGGACA |   |
| Acta1 | GGCATTCACGAGACCACCTAC | CGACATGACGTTGTTGGCATAC |   |
| Tfam | ATGGCGTTTCTCCGAAGCAT | TCCGCCCTATAAGCATCTTGA |   |
| Ppargc1a | TCTGAGTCTGTATGGAGTGACAT | CCAAGTCGTTCACATCTAGTTCA |   |
|   |   |   |   |
| **qPCR-GE primers (mmu) Taqman** |   |   |
| **Targets** | **Supplier** | **Reference** |   |
| Rtl1 | Thermo Fisher | mm02392620\_s1 |   |
| Myod1 | Thermo Fisher | mm00440387\_m1 |   |
| Myog | Thermo Fisher | mm00446195\_g1 |   |
| Des | Thermo Fisher | hs00157258\_m1 |   |
| Myh1 | Thermo Fisher | mm01332489\_m1 |   |
| Myh2 | Thermo Fisher | mm01332564\_m1 |   |
| Myh4 | Thermo Fisher | mm01332541\_m1 |   |
| Myh7 | Thermo Fisher | mm01319006\_g1 |   |
| Eif4g2 | Thermo Fisher | hs00154952\_m1 |   |
| Usmg5 | Thermo Fisher | hs00910071\_g1 |   |
|   |   |   |   |
| **Other qPCR primers** |   |   |
| **Targets** | **Forward** | **Reverse** |   |
| mitoDNA(mmu) | CTAGAAACCCCGAAACCAAA | CCAGCTATCACCAAGCTCGT |   |
| gDNA (mmu) | ATGGGAAGCCGAACATACTG | CAGTCTCAGTGGGGGTGAAT |   |
| AAV DNA | AGTCCGCCCTGAGCAAAGA | GCTGGAGTTCGTGACCGC |   |
|   |   |   |   |
| **Primers for screening IG-KO clones** |   |   |
| **Primers** | **Sequences** |   |   |
| F1 | GGTGAGCTTGCATTCAAAGG |   |   |
| R1 | GAATGCAATGGTCTGTGGCT |   |   |
| F2 | CTACACTCACCCTAGCCTCC |   |   |
| R2 | CGAGAGTCTGGCCTTATGTAC |   |   |
|   |   |   |   |
| **Antibodies Western Blot** |   |   |
|  |  |  |
| **Protein** | **Supplier** | **Reference** | **Dilution** |
| TET2 | ProteinTech | 21207-1-AP | 1/500 |
| ACTIN | Sigma | A2066 | 1/250 |
| SLC25A20 | Abcam | ab82678 | 1/500 |
| BNIP3 | Abcam | ab10433 | 1/500 |
| SAR1b | Abcam | ab155278 | 1/1000 |
| NDUFA9 | Abcam | ab14713 | 1/1000 |
| SDHA | Abcam | ab14715 | 1/2000 |
| UQCRC2 | Abcam | ab14745 | 1/1000 |
| MT-COI | Abcam | ab14705 | 1/1000 |
| COXIV | Abcam | ab64885 | 1/500 |
| ATP5A | Abcam | ab14748 | 1/1000 |
|   |   |   |   |
| **Antibodies FACS** |   |   |   |
| **Target** | **Supplier** | **Reference** | **Dilution** |
| IgG2a/k-APC | BD Biosciences | 553932 | 1/50 |
| IgG2b/k-APC | BD Biosciences | 553991 | 1/50 |
| IgG2a/k-PE | BD Biosciences | 553930 | 1/50 |
| IgG2a/k-Biotin | BD Biosciences | 553928 | 1/50 |
| CD31-APC | BD Biosciences | 551262 | 1/50 |
| CD45-APC | BD Biosciences | 559864 | 1/50 |
| Sca1-PE | BD Biosciences | 553108 | 1/50 |
| VCAM1-Biotion | BD Biosciences | 553331 | 1/50 |
| Steptavidin-PE.Cy7 | BD Biosciences | 557598 | 1/400 |
| FcBlock | BD Biosciences | 553142 | 1/300 |
| 7AAD | Sigma | A9400-1MG | 1/300 |
|   |   |   |   |
| **ISH Probe** |   |   |   |
| **miRNA** | **Supplier** | **Sequence (5'-3')** | **Reference** |
| hsa-miR-1-3p | Qiagen |  | 339451 |
| mmu-miR-127-3p | Qiagen | AGCCAAGCTCAGACGGATCC | YD00615633 |
| hsa-miR-379-5p | Qiagen | CCTACGTTCCATAGTCTACCA | YD00617025 |
| Scramble probe | Qiagen | GTGTAACACGTCTATACGCCCA | 163039916 |
|   |   |   |   |
| **R packages used in the study** |   |   |
| **Package** | **Reference** |   |   |
| DESeq2 | (Love et al. 2014) |   |   |
| ReactomePA | (Yu and He 2016) |   |   |
| biomaRt | (Durinck et al. 2009) |   |   |
| msigdbr | (Subramanian et al. 2005) |   |   |
| miRNAtap | (Pajak) |   |   |
|   |   |   |   |
| **Public database used in the study** |   |   |
| **Identifier** | **Detail** |
| GSE36257 | miRNA mircoarray in diaphragm muscle of mdx and WT mice  |
| E-MTAB-5955 | miRNA sequencing in quiescent and activated satellite cells from WT mice  |
| GSE64379 | RNA-sequencing of quiescent and activated satellite cells from WT mice |
| GSE47362 | ChIP-seq of quiescent and activated satellite cells from WT mice |
| GSE6011 | Microarray of muscle biopsies from young DMD patients and age-matched healthy controls  |
| GSE38417 | Microarray of muscle biopsies from young DMD patients and age-matched healthy controls  |

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