**Supplementary material**

Supplementary table 1. Genes included on the targeted NMD-CGH array.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Group 1(n=12) | Group 2(n=29) | Group 3 (n=146) |  |  |  |
| *ACTA1* | *ANO5* | *ATP2A1*  | *FHL1*  | *MYL4*  | *PRKAG2*  |
| *CFL2* | *BAG3* | *B3GNT1*  | *FHL2*  | *MYL5*  | *PTRF*  |
| *KBTBD13* | *BIN1* | *ABHD5* | *FKRP*  | *MYL6*  | *PYGM*  |
| *KLHL40* | *CRYAB* | *ACVR1*  | *FKTN*  | *MYL6B*  | *QDPR*  |
| *KLHL41* | *DES* | *AGL*  | *GAA*  | *MYL7*  | *SCN4A*  |
| *LMOD3* | *DNM2* | *ACADS*  | *GBE1*  | *MYL9*  | *SGCA*  |
| *NEB* | *DYSF* | *ACADVL*  | *GYS1*  | *MYLIP*  | *SGCB*  |
| *TNNT1* | *FLNC* | *ACNA1S*  | *ISCU*  | *MYLK*  | *SGCD*  |
| *TPM2* | *GNE* | *ACTN3*  | *ISPD*  | *MYLK2*  | *SGCG*  |
| *TPM3* | *HSPB8* | *CACNA1A*  | *ITGA7*  | *MYLK3*  | *SLC22A5*  |
| *YBX3* | *KLHL9* | *CAPN3*  | *KCNE1*  | *MYLK4*  | *SLC25A20*  |
| *MYPN*  | *LDB3* | *CAV3*  | *KCNE3*  | *MYLPF*  | *SOX10*  |
|  | *MTM1* | *CELF1*  | *KCNJ2*  | *MYOM1*  | *SQSTM1*  |
|  | *MYBPC1* | *CHKB*  | *KCNQ1*  | *MYOM2*  | *SRF*  |
|  | *MYBPC2* | *CKM*  | *KY*  | *MYOM3*  | *SYNE1*  |
|  | *MYH1* | *CLCN1*  | *LAMA2*  | *MYOZ1*  | *SYNE2*  |
|  | *MYH13* | *CMYA5*  | *LAMP1*  | *MYOZ2*  | *SYNE3*  |
|  | *MYH2* | *CNBP*  | *LAMP2*  | *MYOZ3*  | *SYNPO2*  |
|  | *MYH3* | *CNTN1*  | *LARGE*  | *MYPN*  | *TCAP*  |
|  | *MYH4* | *COL6A1*  | *LDHA*  | *NBR1*  | *TMEM43*  |
|  | *MYH7* | *COL6A2*  | *LDHB*  | *NEBL*  | *TMEM5*  |
|  | *MYH8* | *COL6A3*  | *LIFR*  | *NTRK1*  | *TMOD3*  |
|  | *MYOT* | *CPT2*  | *LMNA*  | *PABPN1*  | *TNNC1*  |
|  | *OBSCN* | *CSRP3*  | *MATR3*  | *PDLIM3*  | *TNNC2*  |
|  | *OBSL1* | *DAG1*  | *MBNL1*  | *PDLIM5 C* | *TNNI1* |
|  | *RYR1* | *DMD*  | *MBNL2*  | *PDLIM7*  | *TNNI2*  |
|  | *SEPN1* | *DMPK*  | *MBNL3*  | *PGAM2*  | *TNNI3*  |
|  | *TIA1* | *DNAJB6*  | *MEGF10*  | *PGK1*  | *TNNT3*  |
|  | *TTN* | *DPM2*  | *MSTN*  | *PGM1*  | *TPM1*  |
|  |  | *DPM3*  | *MTMR14* | *PLEC*  | *TRIM32*  |
|  |  | *DUX4*  | *MYBPC3*  | *PLEKHG4*  | *TRIM55*  |
|  |  | *EMD*  | *MYL1*  | *PLN*  | *TRIM63*  |
|  |  | *ENO3*  | *MYL10*  | *PNPLA2*  | *TTR*  |
|  |  | *ETFA*  | *MYL12A*  | *POMGNT1*  | *VCP*  |
|  |  | *ETFB*  | *MYL12B*  | *POMGNT2*  | *VMA21*  |
|  |  | *ETFDH*  | *MYL2*  | *POMT1*  |  |
|  |  | *FBXO32*  | *MYL3*  | *POMT2*  |  |