

Supplementary Table 1. Detailed information of 50 target genes.

ID	Class
ECE1	protein_coding
SPRN	protein_coding
FAM219A	protein_coding
ZFP92	protein_coding
hsa_circRNA_402458	circRNA
SOD3	protein_coding
Clorf226	protein_coding
hsa_circRNA_103410	circRNA
ANKFY1	protein_coding
MYCBP2	protein_coding
CRTC1	protein_coding
DNM1	protein_coding
CLEC2L	protein_coding
STK32B	protein_coding
MXD4	protein_coding
EDC3	protein_coding
ADAMTSL2	protein_coding
PLXNA1	protein_coding
HAMP	protein_coding
NDUFB10	protein_coding
NMB	protein_coding
KCNH6	protein_coding
TMEM120B	protein_coding
CATG00000022074.1	protein_coding
PRELP	protein_coding
ADI1	protein_coding
NDOR1	protein_coding
SPEM2	protein_coding
SLC2A3	protein_coding
LENG8	protein_coding
TTL	protein_coding
ICOSLG	protein_coding
CATG00000041077.1	protein_coding
KCNK5	protein_coding
TPSD1	protein_coding
TLL1	protein_coding
HSD3B2	protein_coding
SEPT4	protein_coding
TSPYL2	protein_coding
CELSR3	protein_coding
CATG00000052071.1	protein_coding
TEX14	protein_coding
NECTIN1	protein_coding
hsa_circRNA_092022	circRNA
TMEM129	protein_coding
ZNF71	protein_coding
CATG00000061202.1	protein_coding

CATG0000005517.1	protein_coding
ORAI2	protein_coding
NFRKB	protein_coding
PPP1R26	protein_coding
ZNF446	protein_coding
DENND6B	protein_coding
SGF29	protein_coding
MMP15	protein_coding
BFSP2	protein_coding
HOXC13	protein_coding
OSCAR	protein_coding
ADGB	protein_coding
hsa_circRNA_105039	circRNA
OR4D5	protein_coding
ETFRF1	protein_coding
TBX6	protein_coding
OSTC	protein_coding
UMOD	protein_coding
SPTB	protein_coding
KMT2D	protein_coding
OR1L8	protein_coding
PPP1R12B	protein_coding
SLC29A4	protein_coding
BPIFB1	protein_coding
EPHA10	protein_coding
NUCB1	protein_coding
CCDC190	protein_coding
ADAD2	protein_coding
PCOLCE2	protein_coding
KRT80	protein_coding
RER1	protein_coding
MT3	protein_coding
METTL7B	protein_coding
GATAD2A	protein_coding
DERA	protein_coding
CRISPLD2	protein_coding
TMEM63B	protein_coding
PTDSS2	protein_coding
P4HTM	protein_coding
ZNF845	protein_coding
CRKL	protein_coding
CATG0000005832.1	protein_coding
ARHGAP4	protein_coding
CYB561	protein_coding
OVCH2	protein_coding
FUT11	protein_coding
MRPL9	protein_coding
TMEM191B	protein_coding
LZTS1	protein_coding
RAD23A	protein_coding
HSP90AB1	protein_coding

CATG00000049832.1	protein_coding
CSNK1G2	protein_coding
GABRA3	protein_coding
CLSTN2	protein_coding
BARHL1	protein_coding
CDC25B	protein_coding
NOTUM	protein_coding
FAM102A	protein_coding
WBP2	protein_coding
CD7	protein_coding
BBS1	protein_coding
CATG00000072731.1	protein_coding
SCN4B	protein_coding
hsa_circRNA_067161	circRNA
CCDC3	protein_coding
CATG00000013852.1	protein_coding
GRIN2B	protein_coding
GATSL2	protein_coding
NRXN3	protein_coding
METTL26	protein_coding
METAP1D	protein_coding
AAK1	protein_coding
PGLYRP3	protein_coding
CNN1	protein_coding
CARTPT	protein_coding
TMEM234	protein_coding
RAI1	protein_coding
TSPAN14	protein_coding
CATG00000033628.1	protein_coding
STAP2	protein_coding
SMIM1	protein_coding
DLGAP3	protein_coding
MLKL	protein_coding
B3GNT4	protein_coding
TRAF1	protein_coding
UGT2B7	protein_coding
SYT6	protein_coding
RFXANK	protein_coding
ABHD4	protein_coding
CCDC106	protein_coding
ADCYAP1R1	protein_coding
TARM1	protein_coding
ZBTB20	protein_coding
HEMK1	protein_coding
RIPK3	protein_coding
ARHGAP27	protein_coding
KRTAP10-9	protein_coding
KHSRP	protein_coding
CAMK2G	protein_coding
TRAF5	protein_coding
KIR3DL2	protein_coding

CTXN1	protein_coding
TRPM5	protein_coding
CARNS1	protein_coding
KRTAP10-2	protein_coding
CEP85	protein_coding
ONECUT3	protein_coding
CCL24	protein_coding
KSR2	protein_coding
PEPD	protein_coding
COMT	protein_coding
SLURP1	protein_coding
BAP1	protein_coding
JMJD4	protein_coding
EFNB3	protein_coding
KYAT3	protein_coding
TPGS1	protein_coding
ABR	protein_coding
FAM78A	protein_coding
NSFL1C	protein_coding
ZNF445	protein_coding
CLRN3	protein_coding
NECAB3	protein_coding
BCL7C	protein_coding
TMEM63C	protein_coding
CTD-307407.11	protein_coding
NCKAP5L	protein_coding
FGF17	protein_coding
CBX6	protein_coding
FGD2	protein_coding
VOPP1	protein_coding
TMEM63A	protein_coding
CATG00000047365.1	protein_coding
CATG00000034862.1	protein_coding
TMEM136	protein_coding
VEGF	protein_coding
HECTD4	protein_coding
MTSS1L	protein_coding
TMEM191C	protein_coding
ZNF317	protein_coding
PROC	protein_coding
IQSEC2	protein_coding
SPATA33	protein_coding
TAB1	protein_coding
CATG00000027025.1	protein_coding
MCM7	protein_coding
CATG00000048956.1	protein_coding
SCUBE1	protein_coding
TXNL4B	protein_coding
CABP7	protein_coding
PLEKHG4	protein_coding
hsa-miR-6501-3p	miRNA

hsa-miR-7108-3p	miRNA
hsa-miR-1199-5p	miRNA
hsa-miR-185-3p	miRNA
hsa-miR-6827-3p	miRNA
hsa-miR-6744-3p	miRNA
hsa-miR-665	miRNA
hsa-miR-637	miRNA
hsa-miR-1538	miRNA
hsa-miR-4738-5p	miRNA
hsa-miR-3649	miRNA
hsa-miR-1250-5p	miRNA
hsa-miR-761	miRNA
hsa-miR-3064-5p	miRNA
hsa-miR-490-5p	miRNA
hsa-miR-3622a-5p	miRNA
hsa-miR-4728-5p	miRNA
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hsa-miR-5591-5p	miRNA
hsa-miR-4296	miRNA
hsa-miR-3180-5p	miRNA
hsa-miR-1233-5p	miRNA
hsa-miR-4674	miRNA
hsa-miR-4730	miRNA
hsa-miR-1262	miRNA
hsa-miR-2115-5p	miRNA
hsa-miR-1323	miRNA
hsa-miR-6084	miRNA
hsa-miR-6077	miRNA
hsa-miR-4471	miRNA
hsa-miR-8069	miRNA
hsa-miR-1287-5p	miRNA
hsa-miR-4283	miRNA
hsa-miR-103a-2-5p	miRNA
hsa-miR-6877-5p	miRNA
hsa-miR-1273g-3p	miRNA
hsa-miR-4253	miRNA
hsa-miR-1226-3p	miRNA
hsa-miR-6740-3p	miRNA
hsa-miR-3614-5p	miRNA
hsa-miR-4269	miRNA
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hsa-miR-18b-5p	miRNA
hsa-miR-6501-5p	miRNA
hsa-miR-3943	miRNA
hsa-miR-1270	miRNA
hsa-miR-6773-3p	miRNA

hsa-miR-378c	miRNA
hsa-miR-128-2-5p	miRNA
hsa-miR-216a-3p	miRNA
hsa-miR-4665-5p	miRNA
hsa-miR-10b-5p	miRNA
hsa-miR-2110	miRNA
hsa-miR-1237-5p	miRNA
hsa-miR-328-5p	miRNA
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hsa-miR-3972	miRNA
hsa-miR-378e	miRNA
hsa-miR-6752-5p	miRNA
hsa-miR-4303	miRNA
hsa-miR-198	miRNA
hsa-miR-8058	miRNA
hsa-miR-10a-5p	miRNA
hsa-miR-3907	miRNA
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hsa-miR-532-3p	miRNA
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hsa-miR-636	miRNA
hsa-miR-4254	miRNA
hsa-miR-4707-3p	miRNA
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hsa-miR-25-5p	miRNA
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hsa-miR-422a	miRNA
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hsa-miR-4697-5p	miRNA
hsa-miR-4518	miRNA

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hsa-miR-1255a	miRNA
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hsa-miR-378a-3p	miRNA
hsa-miR-1471	miRNA
hsa-miR-634	miRNA
hsa-miR-210-5p	miRNA
hsa-miR-4322	miRNA
hsa-miR-4675	miRNA
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hsa-miR-21-3p	miRNA

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hsa-miR-6850-3p	miRNA
hsa-miR-3177-3p	miRNA

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