

Supplementary Table S1

Gene target	Forward sequence (5' to 3')	Reverse sequence (5' to 3')
<i>chr16:85667520-85667738-</i>	ACCAGGGCGCCATTGAG	ATGAGCCCAAGTCCCCTTC
<i>chr11:33307959-33309057+</i>	CGGCCAGTCATGTATCAAAGA	GGCACTTGACTGAGTTTGATAAA
<i>chr12:69044180-69048032+</i>	TTCCATCACAGCACAGTCCA	TGTGCATCTACTTCAACTTGCT
<i>chr19:41847788-41848152-</i>	GAGAGGGCCCAGCATCTG	ACTTGCAGTGTGTTATCCCTG
<i>chr17:26490569-26499644+</i>	CTGGAAGCAATGAGGACAGC	CAGTTGCTGTTTACAAGGAGA
<i>chr12:46622936-46648719-</i>	TGGCAAACACTGGAATCCTAC	GGGGAAATCAGGTAGAGAGAAAC
<i>chr18:44526020-44526886+</i>	GCAAGAGAGACAGAAGGGAAAG	GTGCTAGGACCCTGTTCTCA
<i>chr7:152007051-152012423-</i>	TGCCAGATGGAAGAACCATT	CAGTAACAAAAAGCGCAGAGC
<i>chr16:23999829-24046868+</i>	TCTACATCCAGGCCACATC	AGGGCAGGAGAATGTGACAA
<i>chr16:68224671-68225678+</i>	AACCAGAAGATCGAGAGCCT	GGCAAAGATGGAAGTGAAGACA
<i>GAPDH</i>	GGCCTCCAAGGAGTAAGACC	AGGGGAGATTCAGTGTGGTG
<i>hsa-miR-335-3p</i>	GGGTTTTTCATTATTGCTC	-
<i>hsa-miR-370-3p</i>	GGGGCCTGCTGGGGTGGAA	-
<i>hsa-miR-1255b-5p</i>	GGGCGGATGAGCAAAGAAA	-
<i>U6</i>	CTCGCTTCGGCAGCACA	AACGCTTCACGAATTTGCGT

Supplementary Table S2

Gene	Sequence 5'-3'
<i>chr11:33307959-33309057+</i> <i>hsa-circ-0000284</i> WT	GTATGGCCTCACAAGTCTTGGTCTACCCACCATATG TTTATCAAACCTCAGTCAAGTGCCTTTTGTAGTGTGA AGAAACTCAAAGTAGAGCCAAGCAGTTGTGTATTCC AGGAAAGAAACTATCCACGGACCTATGTGAATGGT AGAAACTTTGGAAATTCTCATCCTCCCACTAAGGGT AGTGCTTTTCAGACAAAGATAACATTTAATAGACCT CGAGGACACAACCTTTTCATTGCAGACAAGTGCTGTT GTTTTGAAAAACACTGCAGGTGCTACAAAGGTCATA GCAGCTCAGGCACAGCAAGCTCACGTGCAGGCACC TCAGATTGGGGCGTGGCGAAACAGATTGCATTTCT AGAAGGCCCCAGCGATGTGGATTGAAGCGCAAGA GTGAGGAGTTGGATAATCATAGCA
<i>chr16:68224671-68225678+</i> <i>hsa-circ-0000713</i> WT	CCTGTGGGGTCTTCCTATCAGCCTATGCAAACCTAAT GTTGTGTACAATGGACCAACTTGTCTTCCTATTAAT GCTGCCTCTAGTCAAGAATTTGATTCAGTTTTGTTTC AGCAGGATGCAACTCTTTCTGGTTTAGTGAATCTTG GCTGTCAACCACTGTCATCCATAACATTTTCATTCTTC AAATTCAGGCTCAACAGGACATCTCTTAGCCCATAC ACCTCATTCTGTGCATACCCTGCCTCATCTGCAATCA ATGGGATATCATTGTTCAAATACAGGACAAAGATCT CTTT
<i>chr16:68224671-68225678+</i> <i>hsa-circ-0000713</i> Mut	CCTGTGGGGTCTTCCTATCAGCCTATGCAAACCTAAT GTTGTGTACAATGGACCAACTTGTCTTCCTATTAAT GCTGCCTCTAGTCAAGAATTTGATTCAGTTTTGTTTG TCGTCCTTGCAACTCTTTCTGGTTTAGTGAATCTTGG CTGTCAACCACTGTCATCCATAACATTTTCATTCTTCA AATTCAGGCTCAACAGGACATCTCTTAGCCCATACA CCTCATTCTGTGCATACCCTGCCTCATCTGCAATCAA TGGGATATCATTGTTCAAATACAGGACAAAGATCTC TTT
<i>hsa-miR-1255b-5p</i> <i>hsa-miR-370-3p</i>	CGGAUGAGCAAAGAAAGUGGUU GCCUGCUGGGGUGGAACCUUGU

ANK3
WT

CAGCGAACGGTCAGTCAAGGATCATAAGTTTTTACT
GCCAGTATTGAGAAATTCGTGGAAGAAATGTCAGC
AGGAAGTAAAAATTCACCGAGAAGTGTGTGTGTGTT
CGCTGCTTCCACACATTAATGGCATGATTTTTTTTAT
GCAAAAAGAAAAGAAAAGAAAACCACCCACATTTT
AATTTAGCATGAGCCAATTTACAGAGCATGGAAATC
ACTTTCATTTCCGGATTGGCGCGTGTGCAATTAGCA
ATGCAGTGTATATACAAGAAGCCATGCTGTTAACAG
TTTATCTCAAGTA

ANK3
Mut

CAGCGAACGGTCAGTCAAGGATCATAAGTTTTTACT
GCCAGTATTGAGAAATTCGTGGAAGAAATGTGTGCGT
CCTAGTAAAAATTCACCGAGAAGTGTGTGTGTGTTT
GCTGCTTCCACACATTAATGGCATGATTTTTTTTATG
CAAAAAGAAAAGAAAAGAAAACCACCCACATTTTA
ATTTAGCATGAGCCAATTTACAGAGCATGGAAATCA
CTTTCATTTCCGGATTGGCGCGTGTGCAATTAGCAA
TGCAGTGTATATACAAGAAGCCATGCTGTTAACAGT
TTATCTCAAGTA

MGLL
WT

CCTGGGCCTGGGCCTGCCTATGGCCCAGAGCTACCC
TGGGAGTGTCAGTGCTAGCAGCACAGCTACCTCTGG
TGGCAGGAGAAGAGAGGCCACAGCAGCAGCAGGC
CAGGCCTTCCTGTCCAGGTCTGCATGGAGCACTCGG
TGACCCAGAGCAGGGACTGGAGGCACCCCCAGCCC
TGCCCCAGGCCACAGCAGGACAGGCCGGGACAGGC
CTCACCCAAGGCCAAGGCTGGCATCAGCCAATCATT
CAGAGCTGAGGCCCTGGGCCTAGCCTGCCCTTCTCA
GGTGCCAATACCACC

MGLL
Mut

CCTGGGCCTGGGCCTGCCTATGGCCCAGAGCTACCC
TGGGAGTGTCAGTGCTAGCAGCACAGCTACCTCTGG
TGGCAGGAGAAGAGAGGCCACAGGTTCGTCCC
CAGGCCTTCCTGTCCAGGTCTGCATGGAGCACTCGG
TGACCCAGAGCAGGGACTGGAGGCACCCCCAGCCC
TGCCCCAGGCCAGTCGTCCTCAGGCCGGGACAGGCC
TCACCCAAGGCCAAGGCTGGCATCAGCCAATCATT
AGAGCTGAGGCCCTGGGCCTAGCCTGCCCTTCTCAG
GTGCCAATAACCACC

DGKZ
WT

CGGGCCGCCACGGGCAGCAGGAGGGACAATGCGG
CCAGGGGACGAGCGCCTTCCTTGCCCACCTCACTGC
CACATTCCAGTGGGACGGCCACGGGGGACCTAGG
CCCCAGGGAAAGAGCCCCATGCCGCCCCCTAAGGA
GCCGCCAGACCTAGGGCTGGACTCAGGAGCTGGG
GGGGCCTCACCTGTTCCCCTGAGGACCCCGCCG

Supplementary Table S3

Gene target	Forward sequence (5' to 3')	Reverse sequence (5' to 3')
si-1- <i>hsa-circ-0000713</i>	CACUUAGAUGAUGUUUUGAUTT	AUCAAACAUCUAUCUAAAGUGTT
si-2- <i>hsa-circ-0000713</i>	UAGAUGAUGUUUUGAUGAAGCTT	GCUUCAUCAAACAUCUAUCUATT

Supplementary Table S4

Gene target	Sense sequence (5' to 3')	Antisense sequence (5' to 3')
<i>hsa-circ-0000713</i>	ACCAGAAGATCGAGAGCCTAACT	AGGCAAAGATGGAAGTGAAGAC
<i>hsa-miR-370-3p</i>	TGCGCGCCTGCTGGGGTGGAAAC	CCAGTGCAGGGTCCGAGGTATT
<i>ANK3</i>	CACACCACCTACCCCTTTCC	GTCCATCTGCGGAATGCTCT
<i>MGLL</i>	AGGGGAGAGGATGGTAGTGT	GCAAGAACCAGAGGGCGAAAT
<i>U6</i>	CGCTTCGGCAGCACATATAC	AAATATGGAACGCTTCACGA
<i>GAPDH</i>	TCAAGAAGGTGGTGAAGCAGG	TCAAAGGTGGAGGAGTGGGT

Supplementary Table S5

General data	Early-onset schizophrenia (EOS, n = 32)	Healthy controls (HCs, n = 29)	<i>P</i>
age (years)	15.31±0.4761	15.31±0.1323	0.5239 ^a
Gender (Male/female)	14/18	13/16	0.9326 ^b
Education (years)	9.281±0.4473	10.41±0.1055	0.2100 ^a

Note: a: Mann-Whitney U test; b: χ^2 test; Mean \pm SEM(mean \pm standard error of mean)