

### Supplementary Figure

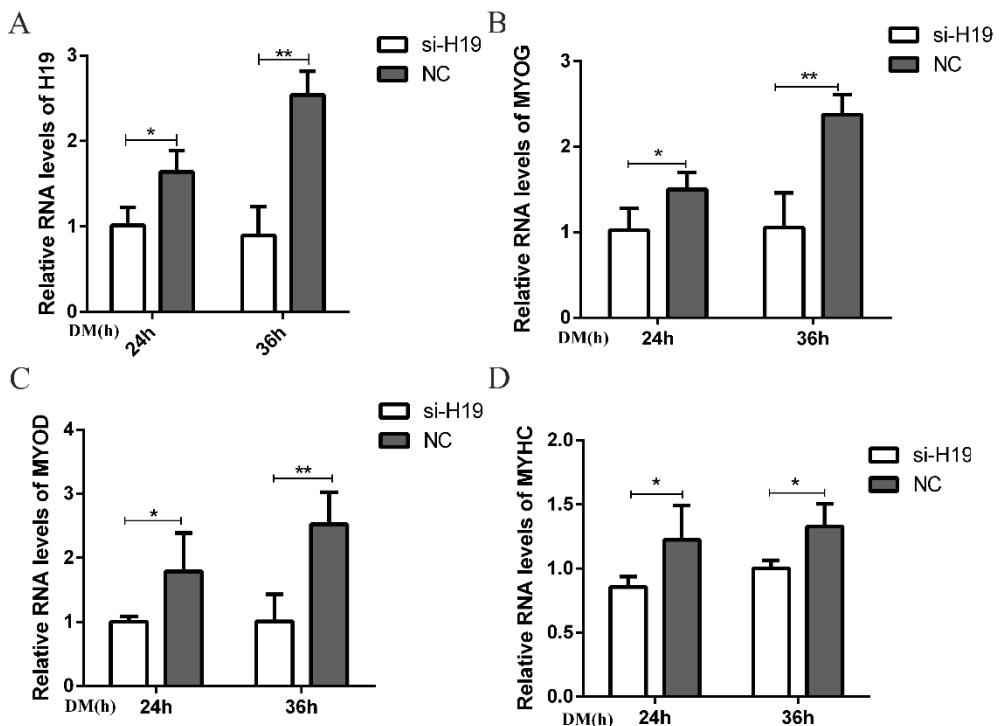


Figure S1. H19 knockdown inhibited the differentiation of PSCs. (A) The knockdown efficiency of H19 siRNA. (B), (C) and (D) qPCR results showed that the mRNA expression of MYOG, MYOD, and MYHC were significantly decreased by H19 knockdown.

**Supplementary Table 1. Primers used for plasmid construction**

Primer name	Primer sequence(5'-3')
TDP43 full-length primer	F: TTCCCTGTCGGGCTTCATA R: CCAACCATAACCCAACGTC
MYOD promoter primer	F: ATGCCAACTCCTCTCCTAAAC R: GGAAGCAGCCAATACAAAAG
H19 full-length sequence	F: AAGCAGGGTGAGGGAGGGGGGTG R: TGAGTTTATTGATGAGTCCAGGGC
H19 1-600bp fragment	F: AAGCAGGGTGAGGGAGGGGGGTG R: GCCGCCACTCTGCCGGGGGTCA
H19 500-940bp fragment	F: TTCCCTCCCCAGGCCTTGTT R: ACTGCACCTTCTTCCCATTCTCC
H19 915-1494bp fragment	F: CGGAGAAATGGAAAGAAGGTG R: AGCCGAGAGTGTTCAGGAAGGC
H19 1442-1887bp fragment	F: TGACGGAGAGGGACAGACGTGA R: GACAGAGGAAAAAAAGGAGGAAGGG
H19 1863-2272bp fragment	F: CCCTTCCTCCTTTTCTCTG R: TGAGTTTATTGATGAGTCCAGGGC

**Supplementary Table 2. Primers used for qPCR**

<b>Gene</b>	<b>Primer sequence(5'-3')</b>
TDP43	F: AAATGGATGAAACAGATGCC R: TCCGTAAAACGAACAAAGC
MYOG	F: ATGAGACATCCCCCTACTTCTACCA R: GTCCCCAGCCCCTTATCTTCC
MYOD	F: GGCTGCCAAGGTGGAAATC R: TCGGTCTGAGTCACCGCTGTAG
MYHC	F: GTTCAGAGAAAGGCATCCAAA R: GAGAGTGACCGACACCACAAGTG
18S	F: TCCCGACGTGACTGCTC R: GGTGACAGCGGGGTGG

**Supplementary Table 3. Primers used for RIP or CHIP**

<b>Gene or Primer name</b>	<b>Primer sequence(5'-3')</b>
H19-RIP primer	F: GAGTGGCCTGATGTGGTAGTGG R: GCCGTCGGCTGTAATTGAT
SnRNA primer	F: GGGAGATACCATGATCACGAAGGT R: CCACAAATTATGCAGTCGAGTTCCC
MYOD-CHIP primer	F: CAGAGGAGGGCTGTTGAA R: GGGAGATGTAGGAGGCAGTAAA