

Supplementary data

1. Table S1 RT-PCR primer sequence

RT-PCR primer sequences. Reverse transcriptional PCR primer sequences used in this study including: OCT4, Endo-OCT4 (endogenous OCT4), SOX2, Endo-SOX2 (endogenous SOX2), NANOG, KLF4, c-MYC, REX1, LIN28, PAX6, AFP, ANP, Brachyury, Nestin Cdx2 and GAPDH

Gene Name	Primer Sequence
OCT4	CGAGCAATTTGCCAAGCTCCTGAA
	TTCGGGCACTGCAGGAACAAATTC
Endo-OCT4	ATGCATTCAAAGTGGAGGTCCTGC
	AACTTCACCTTCCCTCCAACCAGT
SOX2	ATGACCAGCTCGCAGACCTACAT
	TCTGGTAGTGCTGGGACATGTGAA
Endo-SOX2	ACTTCACATGTCCCAGCACTACCA
	AGCTGTCATTTGCTGTGGGTGATG
NANOG	CTTGCCTTGCTTTGAAGCATCCGA
	CTGCAGAAGTGGGTTGTTTGCCTT
KLF4	AATTACCCATCCTTCTGCCCCGAT
	TGTGTTTACGGTAGTGCCTGGTCA
c-MYC	TCAAGAGGCGAACACACAACGTCT
	GTTCTCGTCGTTTCCGCAACAAGT
REX1	CAGATCCTAACAGCTCGCAGAAT
	GCGTACGCAAATTAAGTCCAGA
LIN28	CCCAGTGGATGTCTTTGTGC
	GGGTAGGGCTGTGGATTTCT
PAX6	CAATCAAACGTGTCCAACG
	TGGTATTCTCTCCCCCTCT
AFP	TTTTGGGACCCGAACCTTCC
	CTCCTGGTATCCTTTAGCAACTCT
ANP	GAACCAGAGGGGAGAGACAGAG
	CCCTCAGCTTGCTTTTTAGGAG
Brachyury	CAACCACCGCTGGAAGTAC
	CCGCTATGAACTGGGTCTC
Nestin	GCGTTGGAACAGAGGTTGGA
	TGGGAGCAAAGATCCAAGAC
Cdx2	CCTCCGCTGGGCTTCATTCC
	TGGGGGTTCTGCAGTCTTTGGTC
GAPDH	GAAGGTGAAGGTCGGAGTC
	GAAGATGGTGATGGGATTC

2. Table S2 DNA demethylation of OCT4, SOX2 and NANOG promote region
DNA demethylation of OCT4, SOX2 and NANOG promote region. The fragment sequences of promoter regions of OCT4, SOX2 and NANOG were listed in above Table S2. The “CG” sites in yellow were detected for DNA demethylation analysis, respectively 5 sites for OCT4 promoter region, 19 sites for SOX2 promoter region, 8 sites for NANOG promoter region.

Name	promote region sequence and “CG”site
OCT4	ACCTGCCTTTTGGGCAGTTAAAGGCCGAGAAGTGAACACAGCTG CAACCCCACTGCCTTGTAGACCTTCCGGCAGACCTGTGGCAGGTA TTGAAATGCACGCATAACAATTAGGCTCAAAAAGTCTACACAGACA GGAGATGGGCACACGAACAGAGGCAACATAAGAGTGGGGGAAA AGTCTCAAAAGACTCACGGATGCCACCAAGATGAAGACAGCTGG
SOX2	CCCTGGCATGGCTCTTGGCTCCATGGGTTTCGGTGGTCAAGTCCGA GGCCAGCTCCAGCCCCCTGTGGTTACCTCTTCCCTCCCACTCCAG GGCGCCCTGCCAGGCCGGGACCTCCGGGACATGATCAGCATGT ATCTCCCCGGCGCCGAGGTGCCGGAACCCGCCCCCCAGCAGA CTTCACATGTCCCAGCACTACCAGAGCGGCCCGGTGCCCGGCAC GGCCATTAACGGCACACTGCCCTCTCACACATGTGAGGGCCGG ACAGCGAACTGGAGGGGGGAGAAATTTTCAAAGAAAACGAGG GAAATGGGAGGGGTGCAAAAGAGGAGAGTAAGAAACAGCATGG AGAAAACC
NANOG	TGGCCAGGCTGGTTTTCAAACCTCCTGACTTCAGGTGATCCGCCTGC CACGGCCTCCCAATTTACTGGGATTACAGGGGTGGGCCACCGCG CCCGGCCTTTTTCTTAATTTTAAAAATATTAAAGTTTTATCCCAT TCCTGTTGAACCATATTCCTGATTTAAAAGTTGGAAACGTGGTGA ACCTAGAAGTATTTGTTGCTGGGTTTGTCTTCAGGTTCTGTTGCT CGGTTTTCTAGTTCCCCACCTAGTCTGGGTTACTCTGCAGCTACT TTTGATTACAATGGCCTTGGTGGAGACTGGTAGACGGGATTAAC TGAGAATTCACAAGGGTGGGTC

3. Table S3. Neurological Severity Scores, NSS

Neurological Severity Scores, NSS. Neurological function in the rats was assessed using the Neurological severity scores. The lower NSS Score is, the less severe ischemia will be.

Grading	Point (normal = 0; maximum = 5)
Normal walk	0
Flexion of forelimb (raising the rat by the tail)	1
Circling toward the paretic side (walking)	2
Falling down to the paretic side (walking)	3
No spontaneous walking, decreased consciousness	4
Ischemia-related deaths	5

3. Table S4. Beam Balance Test (BBT)

Beam Balance Test (BBT). Neurological function in the rats was assessed using the Beam Balance Test. The lower BBT Score is, the less severe ischemia will be.

Grading	Point (normal = 0; maximum = 6)
Balances with steady posture	0
Grasps side of beam	1
Hugs the beam and one limb falls down from the beam	2
Hugs the beam and two limbs fall down from the beam, or spins on beam (>60 s)	3
Attempts to balance on the beam but falls off (>40 s)	4
Attempts to balance on the beam but falls off (>20 s)	5
Falls off: no attempt to balance or hang on to the beam (>20 s)	6