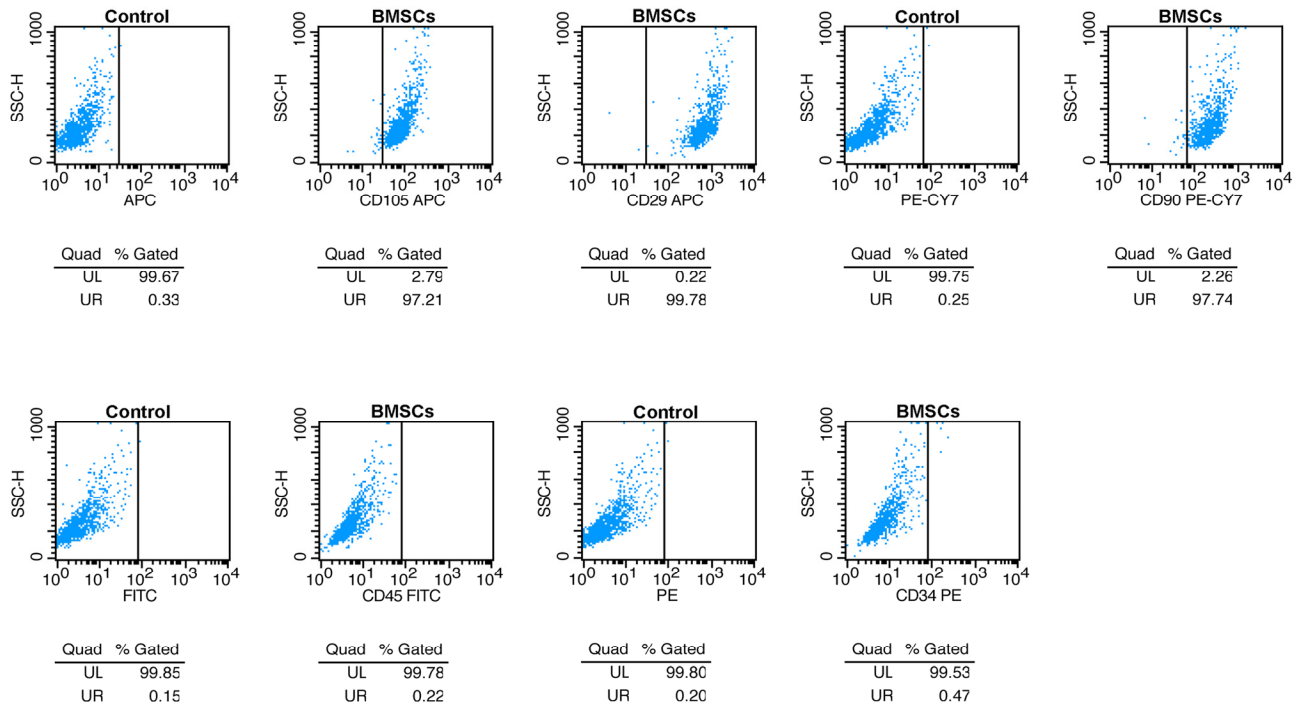
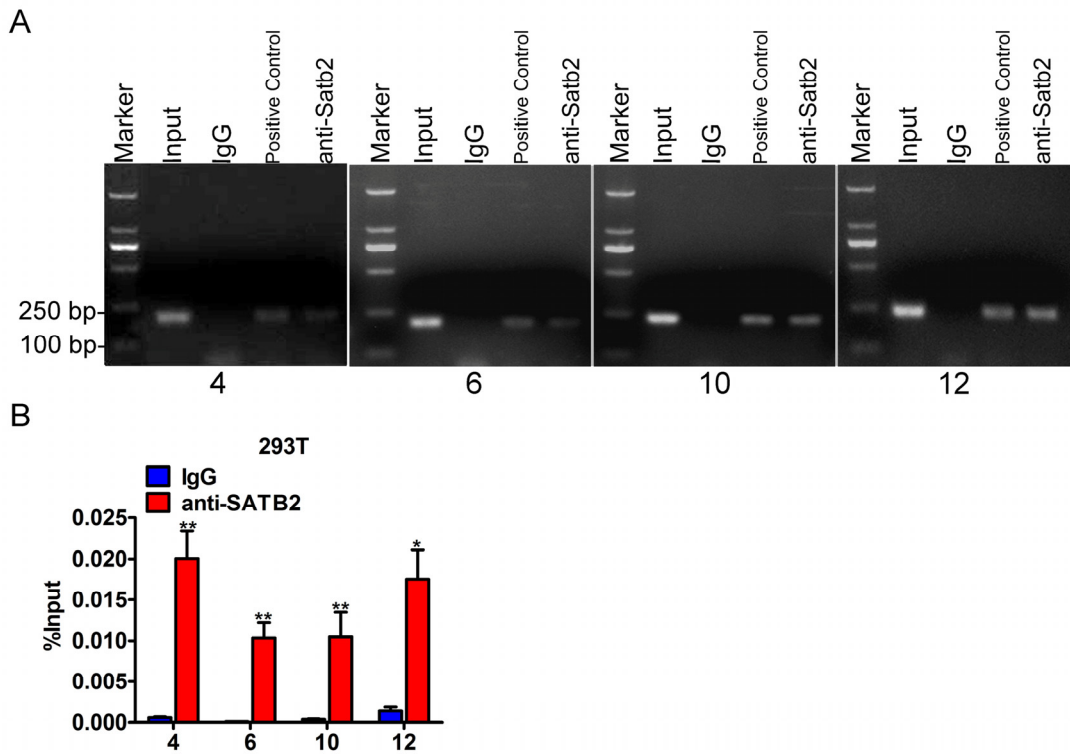


SUPPLEMENTARY MATERIAL



Supplementary Figure S1. BMSCs were confirmed by flow cytometry.



Supplementary Figure S2. (A) ChIP assays showed four putative binding sites among 12 primers covering the upstream -1850~+350 of SATB2 in human Nanog promoter region in BMSCs. **(B)** The four positive binding sites were further proved in 293T cells by real-time PCR. *p < 0.05, **p < 0.01.

Table S1. Antibodies used in Western blot

Antibody	Dilution	Source	Code number
SATB2	1:800	Abcam	Ab69995
NANOG	1:400	Santa Cruz	SC-33760
SOX2	1:400	Santa Cruz	SC-17320
OCT4	1:400	Santa Cruz	SC-5279
RUNX2	1:1000	Cell Signaling Technology	#12556
OSX	1:800	Abcam	Ab22552
OPN	1:800	Bioworld	BS1264
P16	1:800	Abcam	Ab51243
P21	1:500	Proteintech	10355-1-AP
P53	1:500	Proteintech	10442-1-AP
β -actin	1:800	Boisynthesis Biotechnology	Bs-oo61R

Table S2. Sequence information on specific primers used in this study

Gene	Primer Sequence (5' - 3')	Product size (bp)	T _m (°C)
Satb2	F: 5'- CCAGGAGTTTGGGAGATGGTAT - 3' R: 5'- GTGAGGAGACTGTTCGTTGGTT - 3'	101	60.0
Nanog	F: 5'- AAGGTCCCGGTCAAGAAACAG - 3' R: 5'- CTTCTGCGTCACACCATTGC - 3'	126	59.7
Sox2	F: 5'- GGCAGAGAAGAGAGTGTTC - 3' R: 5'- GCCGCCGATGATTGTTATT - 3'	120	59.8
Oct4	F: 5'- TGAGAGGCAACCTGGAGAAT - 3' R: 5'- AACCACACTCGGACCACATC - 3'	115	60.0
OPG	F: 5'- GCGCTCGTGTCTTCTGGACATC-3' R: 5'- CCAGGAGGACATTTGTCACACAAC - 3'	149	61.9
RANK	F: 5'- GAGGCACCAGAGTTAGTCTGC - 3' R: 5'- GGAGGTGTTACGTTGAGAATC - 3'	101	61.9
RANKL	F: 5'- TGCCAGTGGGAGATGTTAGAC - 3' R: 5'- CCTTCAATTGCGCTAGATGAC - 3'	119	60.0
M-CSF	F: 5'- TAGCCACATGATTGGGAGTGGA - 3' R: 5'- CTCAAATGTAATTTGGCACGAGGTC - 3'	122	60.0
Leptin	F: 5'- AGTTGTA CTCCAGTGCGTCTC - 3' R: 5'- TACTTTCACAGTCGGGTT - 3'	130	59.8

PPAR- γ	F: 5'- AGCTGAACCACCTGAGTCC - 3' R: 5'- TCATGTCTGTCTCCGTCTTCTTG - 3'	125	59.9
C/EBP- α	F: 5'- CACGAAGCACGATCAGTCCAT - 3' R: 5'- CGCACATTCACATTGCACAAG - 3'	124	59.8
GAPDH	F: 5'- GGAGATTACTGCCCTGGCTCCTA - 3' R: 5'- GACTCATCGTACTCCTGCTTGCTG - 3'	178	60.0

Table S3. Sequence of the 12 ChIP primers. Red represents four positive binding sites

Number		Primers	Sites
Nanog1	F R	CATTTTAACACATCCTTAGTCCAGC GCTCCCTGTCCCATTGTGT	`-1850~-1663
Nanog2	F R	AATGGGACAGGGAGCGG GAAATAGGATGATTTCTTTAAAAGAAGG	`-1677~-1453
Nanog3	F R	AAGAAATCATCCTATTTCTACGAGA TATTGCTTGATGTGAAACAAGGA	`-1470~-1301
Nanog4	F R	AGGAGCAGAGTGCAGAGGAG CTTCCTATTCCCAAACCCAAC	`-1226~-1076
Nanog5	F R	GGGTTGGGAATAGGAAGGA GTGGGTGTGTGTTTCTGG	`-1093~-965
Nanog6	F R	CCATAAATGTTAGTGCTGGAACC AGTTTGGTTTCTTGTCTATCCCTC	`-1050~-838
Nanog7	F R	AAAGGAACTAAGGTAGGTGCTGA CATGCACCTTAAATTCCTGAGG	`-836~-601
Nanog8	F R	CAGGAATTTAAGGTGCATGC GAGTTTGAAACCAGCCTGGC	`-619~-366
Nanog9	F R	TGGCCAGGCTGGTTTC CCAGCAACAAATACTTCTAGGTTC	`-387~-186
Nanog10	F R	GCTGGGTTTGTCTTCAGGTT TCCCGTCTACCAGTCTCACC	`-190~-79
Nanog11	F R	AAATCTTTGTTAAATTTTGGTTGG AAGCTGGAGTGCAGTGGTGT	`+1~+200
Nanog12	F R	GGTAGGTGGAGGTTGTAGTGAG TGCACATGTACAATGCACGT	`+151~+350