

**Supplementary information, Table S3 Primers used in this study**

Gene	Accession No.	Primer Sequence	Product Size (bp)	Annealing Temp.( °C)
Oct4 (Endo)	NM_013633	GAACAGTTTGCCAAGCTGCTG	406	58
		CCGGTTACAGAACCATACTCG		
Oct4 (Exo)	NM_203289	GACAACAATGAGAACCCTTCAGGAGA	196	62
		TTCTGGCGCCGGTTACAGAACCA		
Nanog	NM_028016	AGGACAGGTTTCAGAAGCAGAAGT	165	62
		TCAGACCATTGCTAGTCTTCAACC		
GAPDH	XM_001473623	ACTTCAACAGCAACTCCCCTC	286	62
		TAGGCCCTCCTGTTATTATGG		
SOX2	NM_177753	GCGGTGCTTTACGATACGTTG	124	62
		CCGAACATCAGAACCAGCT		
REX1	NM_009556	CAAGAAGAAGCTGAGGGGTAAA	314	62
		CGTGGGTTAGGATGTGAATCTT		
SAL4	NM_175303	GTTAGATGTCAAGGCCAAGGAC	320	62
		GGCGTCTACAGTAGACTCGAT		
E-RAS	NM_181548	CATGACCCCACTATCCAAGATT	395	62
		CTCTGAATCTCATGGACAAGCA		
KLF4	NM_010637	ATCAGTGTTAGCAAAGGAAGCC	380	62
		TCTTGATAATGGAGAGAGGGGA		
C-MYC	NM_010849	CAGCCCTATTCATCTGCGA	359	62
		AAACCGCTCCACATACAGTCCT		
FBX15	NM_015798	AAGCATAATGGGCTCAGACACT	368	62
		AACTCACATACCAGATGGGCTT		
Bmi1 (Endo)	NM_007552	CTTACGATGCCAGCAGCAA	329	62
		ACAGGAAGAGTGGAGGGAACA		
Bmi1 (Exo)	NM_005180	ACTTACGATGCCAGCAGC	172	58
		GGACCATTCCTTCTCCAGGT		
Utf-1	NM_009482	CAGATTCAGTTCTTCCACGACG	264	62
		ACTGTTGAGATGTCGCCCAA		
Dppa4	XM_001473768	TATGAGGAAGTCAGCACCACC	270	62
		AAGCAGGAAGAGGGCAATG		
Dppa5	XR_004662	GTATTCCAGGTCCAGTCGCT	182	62
		AGCATCCATTTAGCCCGA		
Ftl-17	XM_001476385	GACCAAGTCACACAACCTGCCA	284	62
		GCCGCTCATCTCCTTCAA		
GATA4	NM_008092	AACCAGAAAACGGAAGCCCAAG	381	62
		TACGCGGTGATTATGTCCCAT		
SOX7	NM_011446	AACACGCTGCCTGAGAAAAACG	400	62
		AATAGGCTGGAGATGGGGGACA		
MIXL1	NM_013729	TGTACCCAGACATCCACTTGCG	335	62
		CCAGGAGTCCAACCTTGGAGCCA		
Foxa2	NM_010446	TACACACACGCCAAACCTCCCT	335	62
		GCTTCCTTCAGTGCCAGTTGCT		
CER1	NM_009887	AGGCAGAAGACAAGCCGATCT	379	62
		TCTTCATGGGCAATGGTCTGGT		
Brachyury	NM_009309	CCCCTGCTGAAGGTAATGTG	363	62
		ATGAACTGGGTCTCGGGAAAGC		
FLT-1	NM_010228	TACGAAAAGTCCGTGTCTTCGC	432	62
		TTCAGGTCTCTCCTTCGGCT		
CAD11	N09866	AAGACCCAGATGCTGCCAACAG	387	62
		GCATGATTCAGGGGGTAGGCT		
KDR	NM_010612	TTTCCTGGGACTGTGGCGAA	283	62
		TGGACTCAATGGGCCTTCCA		
SOX1	NM_009233	CACATGAAGGAACACCCGGA	236	62
		TTAGCCCAGCCGTTGACATG		
Nefl	NM_010910	CGGAAGACGCCACTAACGAGAA	387	62
		CTTCGGCGTTCTGCATGTTCTT		
P16	NM_001040654	AGTCCGCTGCAGACAGACTG	115	59

		GGGTACGACCGAAAGAGTTCG		
P19	NM_009877	CTTGGTCACTGTGAGGATTC	190	59
		CCATCATCATCACCTGGTCCAG		
Nestin	NM_016701	GGCATCCCTGAATTACCCAA	248	62
		AGCTCATGGGCATCTGTCAA		
STAT3	NM_213660	GTGTCAGATCACATGGGCTAAA	409	62
		ATGTCGGGGTAGAGGTAGACAA		
Dppa3	XM_885629	AGAGGACGCTTTGGATGA	227	62
		CTTTCAGCACCGACAACA		
Tcl-1	NM_009337	TGCCCGTAGTCATCAAGA	233	62
		CCGAGTCTATCAGTTCAAGC		
Gli1	NM_008130	GCAGGTCATCCTTGCTGTGA	165	62
		GCTTGCTTTCATCTTTGTCCGC		

Gene	Primer Sequence
ChIP-Sox2	CATTGGAGAGGTTCAGACTA
	CTGCCCCAGGTTCTCCTTAAG
ChIP-Oct4	ATCCGAGCAACTGGTTTGTG
	CAATCCCACCCTCTAGCCTT
ChIP-Nanog	TCTTTAGATCAGAGGATGCCCCCTAAGC
	AAGCCTCCTACCCTACCCACCCCTAT
ChIP-β-actin	TCGATATCCACGTGACATCCA
	GCAGCATTITTTTACCCCTC
Bisulfite-Nanog	TCGATATCCACGTGACATCCA
	ACCAAAAAAACCACACTCATATCAAT
Bisulfite-Oct4	GGTTTTTITAGAGGATGGTTGAGTG
	TCCAACCCTACTAACCATCACC