Table S1. Primer sets for qRT-PCR analysis

Gene	Direction	Sequence (5′-3′)	Product size (bp)
TP53	Forward	TGCTCAAGACTGGCGCTAAA	157
	Reverse	CAGTCTGGCTGCCAATCCA	
OCT4	Forward	CTGGGTTGATCCTCGGACCT	243
	Reverse	CCATCGGAGTTGCTCTCCA	
SOX2	Forward	GCCGAGTGGAAACTTTTGTCG	155
	Reverse	GGCAGCGTGTACTTATCCTTCT	
NANOG	Forward	TTTGTGGGCCTGAAGAAAACT	116
	Reverse	AGGGCTGTCCTGAATAAGCAG	
KLF4	Forward	CCCCACCTTCTTCACCCCTAGA	200
	Reverse	GTAAGGTTTCTCACCTGTGTGGG	
MKI67	Forward	CGTCCCAGTGGAAGAGTTGT	143
	Reverse	CGACCCCGCTCCTTTTGATA	
AURKB	Forward	ACCTGCACCATCCCAACATC	151
	Reverse	ATGATCGTGGCTGTTCGCTG	
BRACHYURY	Forward	CAGTGGCAGTCTCAGGTTAAGAAGGA	122
	Reverse	CGCTACTGCAGGTGTGAGCAA	
EOMES	Forward	CATGCAGGGCAACAAAATGTATG	126
	Reverse	GTGTTGTTGTTATTTGCGCCTTTGT	
MESP1	Forward	AGCCCAAGTGACAAGGGACAACT	82
	Reverse	AAGGAACCACTTCGAAGGTGCTGA	
KDR	Forward	GTGATCGGAAATGACACTGGAG	124
	Reverse	CATGTTGGTCACTAACAGAAGCA	
NKX2-5	Forward	CAAGTGTGCGTCTGCCTTT	100
	Reverse	CAGCTCTTTCTTTTCGGCTCTA	
TNNT2	Forward	TTCACCAAAGATCTGCTCCTCGCT	166
	Reverse	TTATTACTGGTGTGGAGTGGGTGTGG	
TNNI3	Forward	TGCTTCACAGTGGAGCTGATA	166
	Reverse	GCTGCAATATGCAATGGAGTG	
α-ACTININ	Forward	ATGGCCTTGGACTCTGTGC	167
	Reverse	GGTGTTCACGATGTCTTCAGC	
WNT3	Forward	TGTTCCACTGGTGCTGCTAC	151
	Reverse	CTGAGGCATCCATCCCTGG	
GSC	Forward	GAGGAGAAAGTGGAGGTCTGGTT	72
	Reverse	CTCTGATGAGGACCGCTTCTG	
FOXA2	Forward	CTGGTCGTTTGTTGTGGCTG	136
	Reverse	GGAGGAGTAGCCCTCGG	
MIXL1	Forward	AGTCCAGGATCCAGGTATGGT	85
	Reverse	GGCCTAGCCAAAGGTTGGAA	
SOX17	Forward	AAGATGCTGGGCAAGTCGTG	118
	Reverse	GCCGGTACTTGTAGTTGGGG	
PAX6	Forward	TGGGCAGGTATTACGAGACTG	111
	Reverse	ACTCCCGCTTATACTGGGCTA	
TUBB3	Forward	GGCCAAGGGTCACTACACG	85
	Reverse	GCAGTCGCAGTTTTCACACTC	
NES	Forward	CTGCTACCCTTGAGACACCTG	141
	Reverse	GGGCTCTGATCTCTGCATCTAC	
SOX1	Forward	AATACTGGAGACGAACGCCG	182
	Reverse	CCCTCGAGCAAAGAAAACGC	

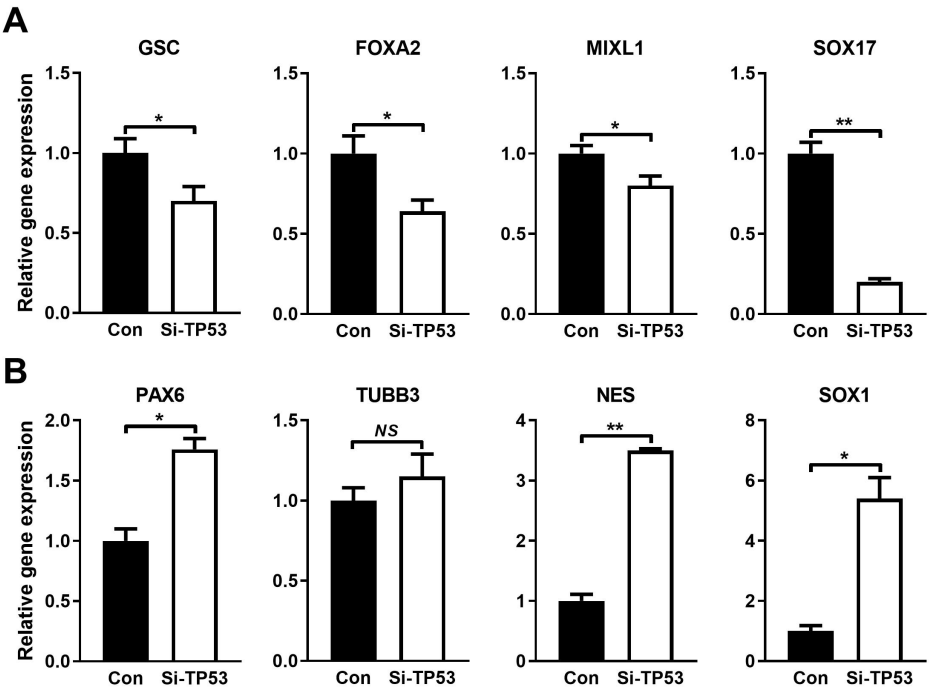

Fig. S1. The effect of p53 over-expression on the differentiation of ectoderm and endoderm. It was showed that the mesendodermal marker genes (GSC, FOXA2, MIXL1 and SOX17) were remarkably decreased by Si-TP53 (A). In contrast, the ectodermal markers (PAX6, NES and SOX1) were significantly up-regulated by knockdown of TP53 gene (B).