

Fig. S1. Conservation analysis of RUNX2 exon 5 in 8 species, including human, rhesus, mouse, dog, elephant, chicken, X_tropicalis, and zebrafish in UCSC genome browser.

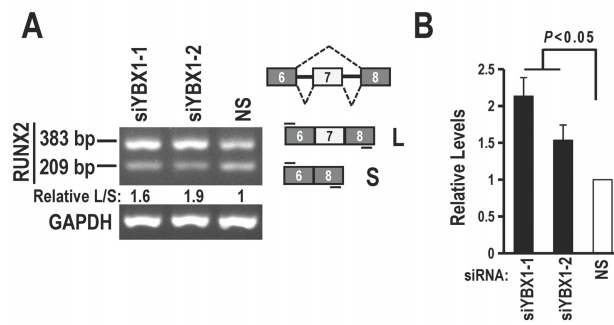


Fig. S2. YBX1 inhibits RUNX2 exon 7 inclusion. (A) Knockdown of YBX1 increased RUNX2 exon 7 inclusion in DPSCs. (B) Histogram showed quantification of three independent experiments.

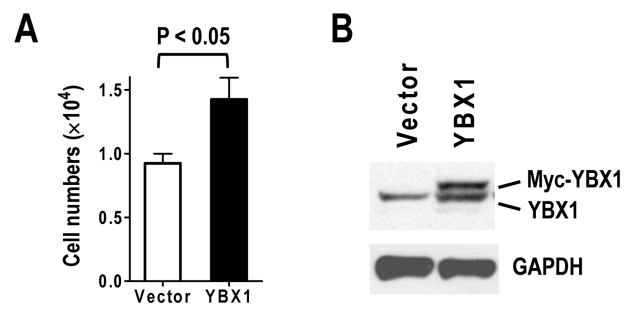


Fig. S3. YBX1 overexpression promotes cell growth in DPSCs. (A) DPSCs were transfected with YBX1 expression plasmid or control vector. Four days later, cell number was calculated. (B) Overexpression of Myc tagged YBX1 was confirmed by Western blot.

Table S1. Primers for RT-PCR

Gene	Forward primers (5'-3')	Backward primers (5'-3')	Annealing temperature (degree)	Number of cycles	Size
RUNX2 (exon 5 and 7 skipping)	GACGAGGCAAGAGTTTCACC	ATGAAATGCTTGGGAAGTGC	52	35	Full: 566 bp; Δ 7: 500 bp; Δ 5: 392 bp; Δ 7 Δ 5: 326 bp
RUNX2 (exon 5 skipping)	GACGAGGCAAGAGTTTCACC	GGTGGTAGAGTGGATGGACG	52	35	Full: 383 bp; Δ 5: 209 bp
RUNX2 (exon 5)	GGGAACCCAGAAGGCACAGAC	GCCTGGGGTCTGTAATCTGACTC	58	35	195 bp
RUNX2 (exon 7 skipping)	CGTCCATCCACTCTACCACC	ATGAAATGCTTGGGAAGTGC	53	35	204 bp, 138 bp
ALP	GACAAGAAGCCCTTCACTGC	AGACTGCGCCTGGTAGTTGT	52	35	120 bp
OC	CGTACCTGTATCAATGGCTG	GCCAACTCGTCACAGTCCG	54	35	101 bp
DSPP	GCTCAACCATAGAGAAAGCAAACG	CTTCGTTGCCTTCCCAACTTC	58	35	155 bp
GAPDH	GAAGGTGAAGGTCGGAGTC	GAAGATGGTGATGGGATTC	52	28	226 bp