Table S1. Primer sequences used for RT-PCR and Q-PCR

Gene name	primer	sequences (5' → 3')
HOXB5	Forward	CCA ATT TCA CCG AAA TAG ACG
	Reverse	CGG TCA TAT CAT GGC TGA TG
RET	Forward	CTG TGC AGT CAG CAA GAG ACG
	Reverse	AGC AGT TGC AGG TGC CAT AGC
ERBB2	Forward	TGA CCT GCT GGA AAA GGG GGA GCG
	Reverse	TCC CTG GCC ATG CGG GAG AAT TCA G
EGFR	Forward	ATA GTC GCC CAA AGT TCC GTG AGT
	Reverse	ACC ACG TCG TCC ATG TCT TCT TCA
ESR1	Forward	TCC TCA TCC TCT CCC ACA TC
	Reverse	ATG AAG TAG AGC CCG CAG TG
SNAIL2	Forward	CCT GGT TGC TTC AAG GAC AC
	Reverse	GTG TGC TAC ACA GCA GCC
B-ACTIN	Forward	CTT CTT GGG TAT GGA ATC CTG
	Reverse	TCA GGA GGA GCA ATG ATC TTG

Supplementary Figure legends

Figure S1. HOXB5 overexpression promotes cell proliferation in different cell lines. (A) Another MCF7 clonal cells overexpressing HOXB5 (MCF7:HOXB5 #3) were used to confirm HOXB5-induced cell proliferation. MCF7 cells harboring empty vector were used as controls. (B) MTT assay in MDA MB 231:HOXB5 and MDA-MB-231:empty vector. The MDA-MB-231 cells stably expressing HOXB5 and the empty vector were used for the assay. (C) MTT assay in MCF10A:HOXB5 and MCF10A:empty vector. HOXB5 or empty vector was transiently transfected into the MCF10A and the effect of HOXB5 on cell proliferation was measured 4 days after the transfection. *$p < 0.05$, **$p < 0.01$ vs. control cells.

Figure S2. HOXB5 overexpression up-regulates *SNAIL2* in MCF7 and T47D, but not in MDA-MB-231. MCF7, T47D, and MDA-MB-231 cells overexpressing HOXB5 or empty vector were used to measure the expression level of *SNAIL2*.

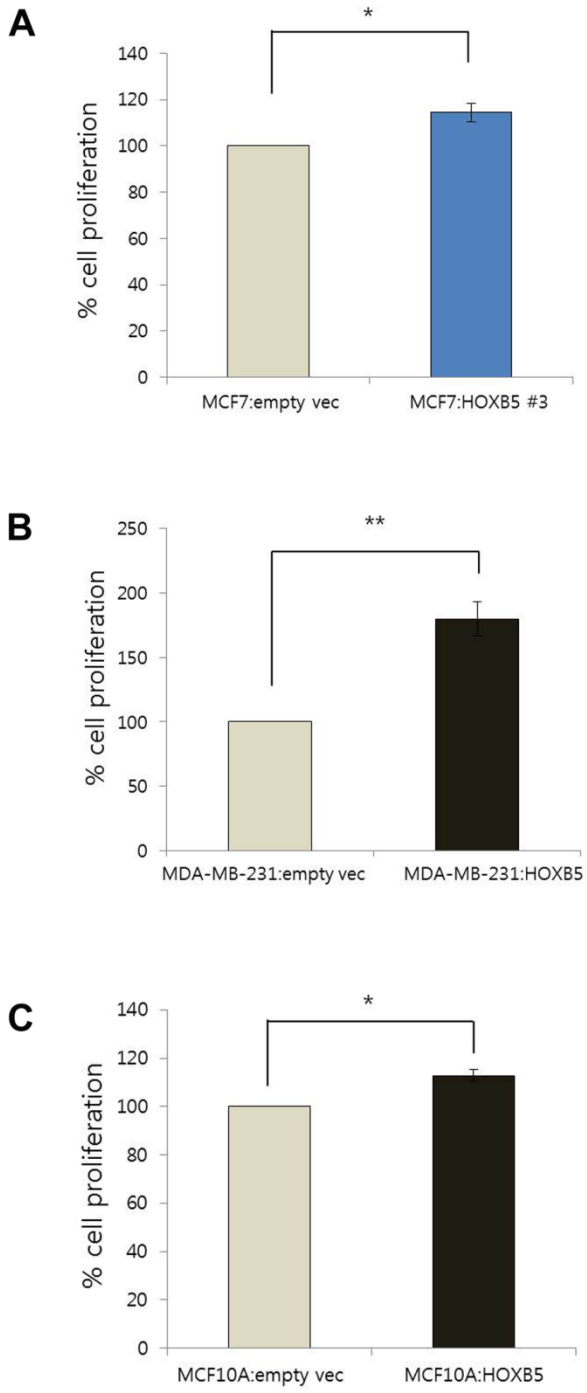
A
*
% cell proliferation
140
120
100
80
60
40
20
0
MCF7:empty vec
MCF7:HOXB5 #3
B
**
% cell proliferation
250
200
150
100
50
0
MDA-MB-231:empty vec
MDA-MB-231:HOXB5
C
*
% cell proliferation
140
120
100
80
60
40
20
0
MCF10A:empty vec
MCF10A:HOXB5

Figure S1

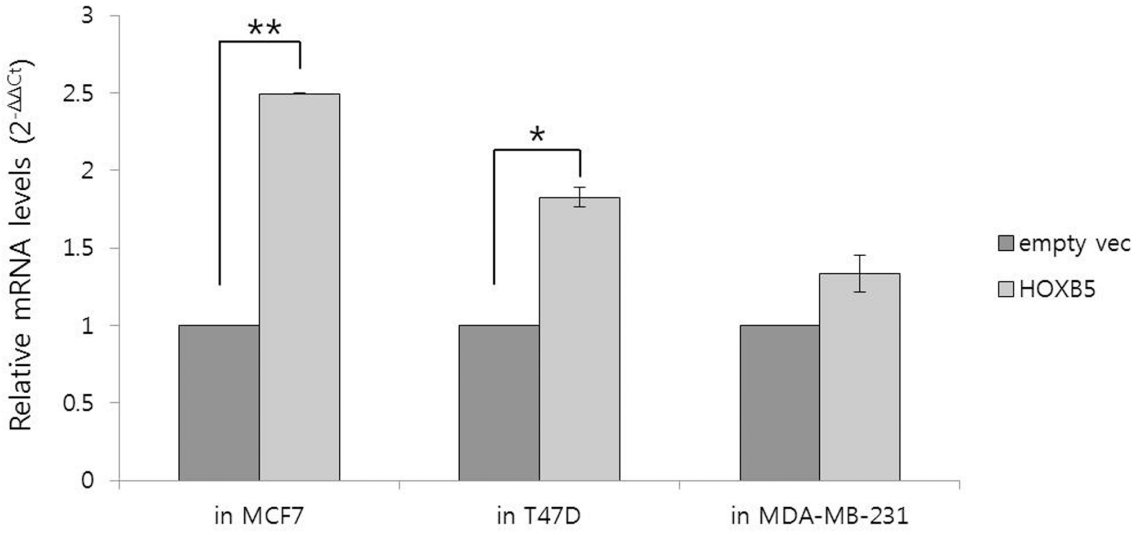
Relative mRNA levels (2-ΔΔCt)
3
2.5
2
1.5
1
0.5
0
**
*
in MCF7
in T47D
in MDA-MB-231
empty vec
HOXB5

Figure S2