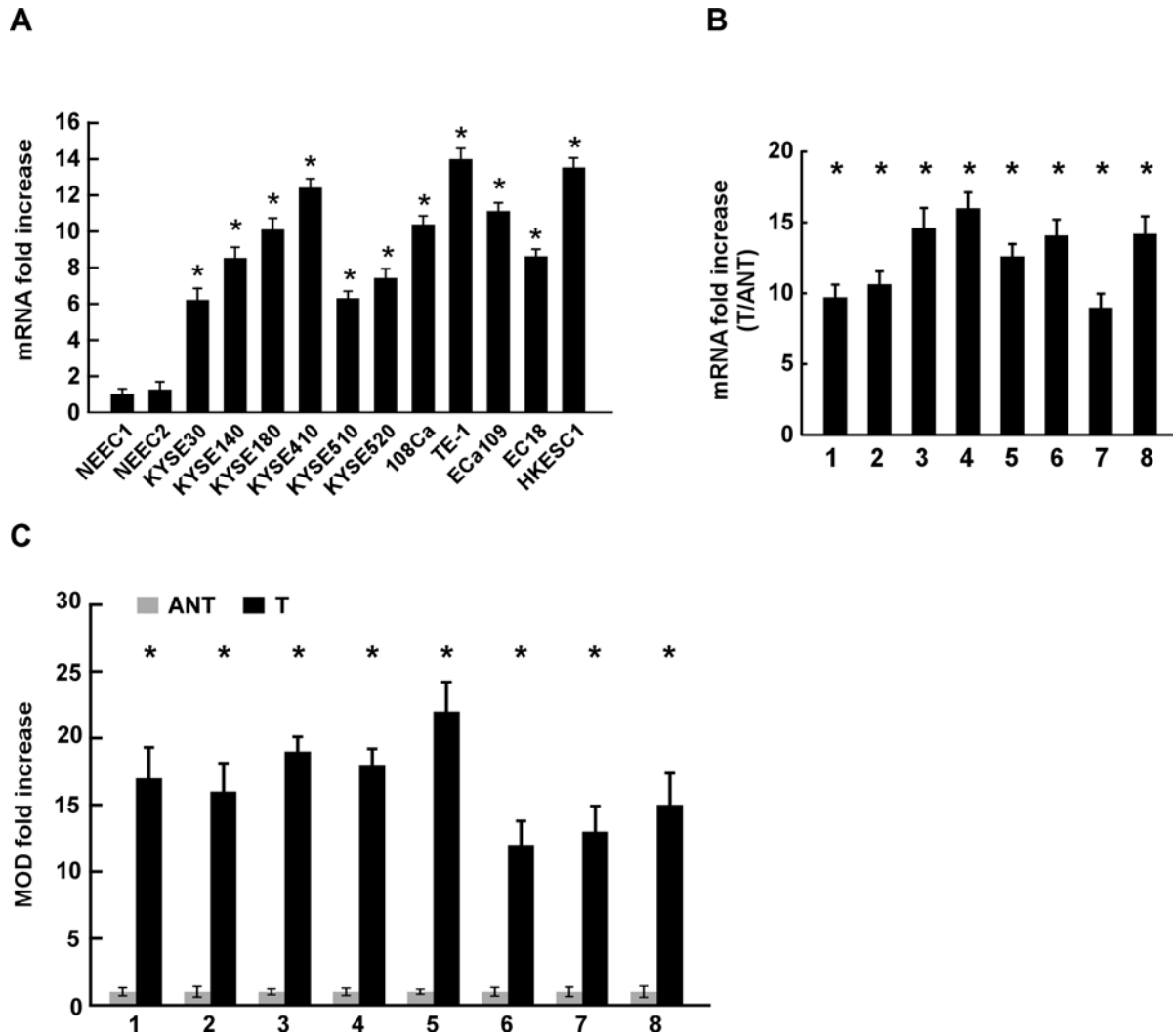
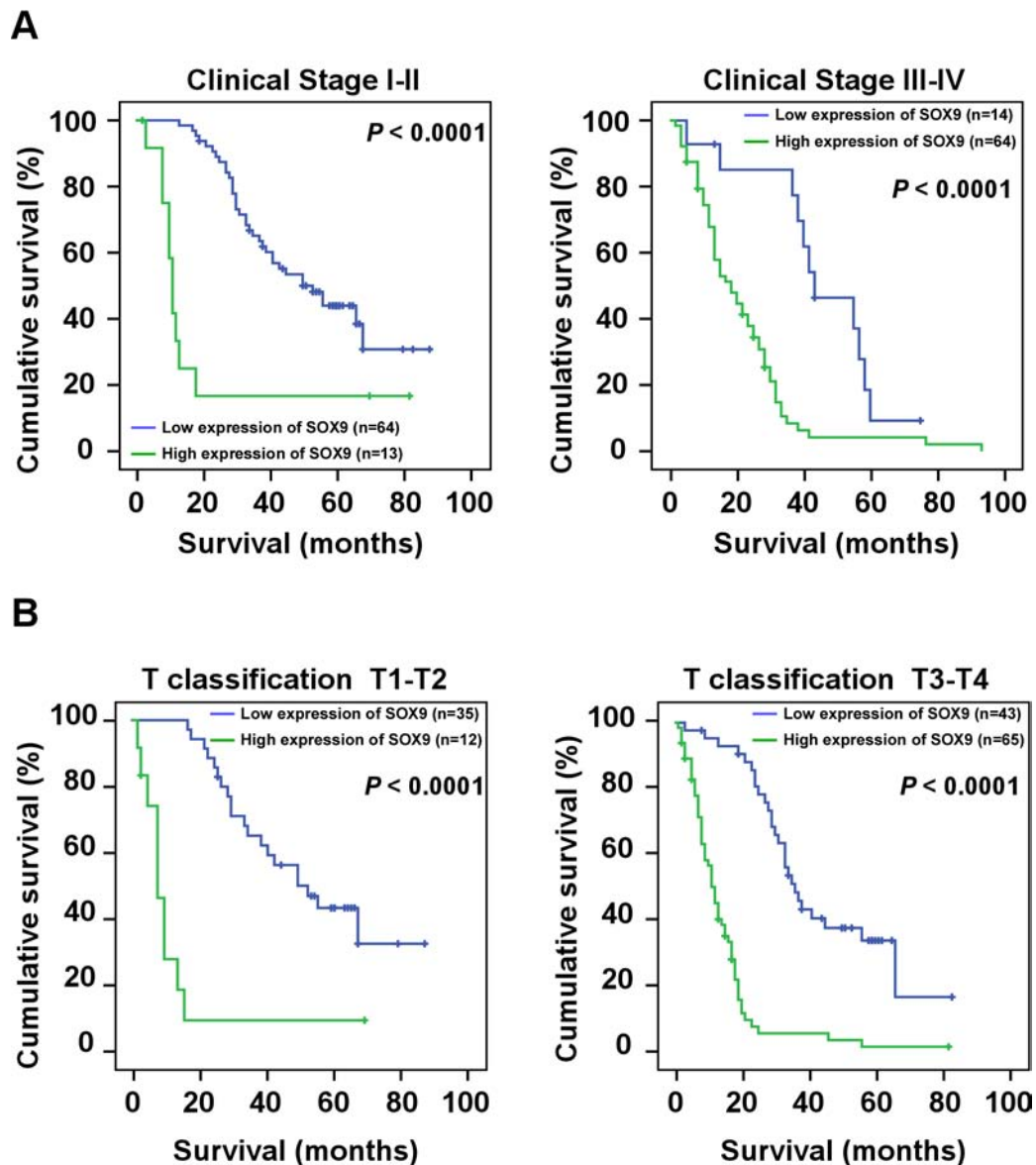


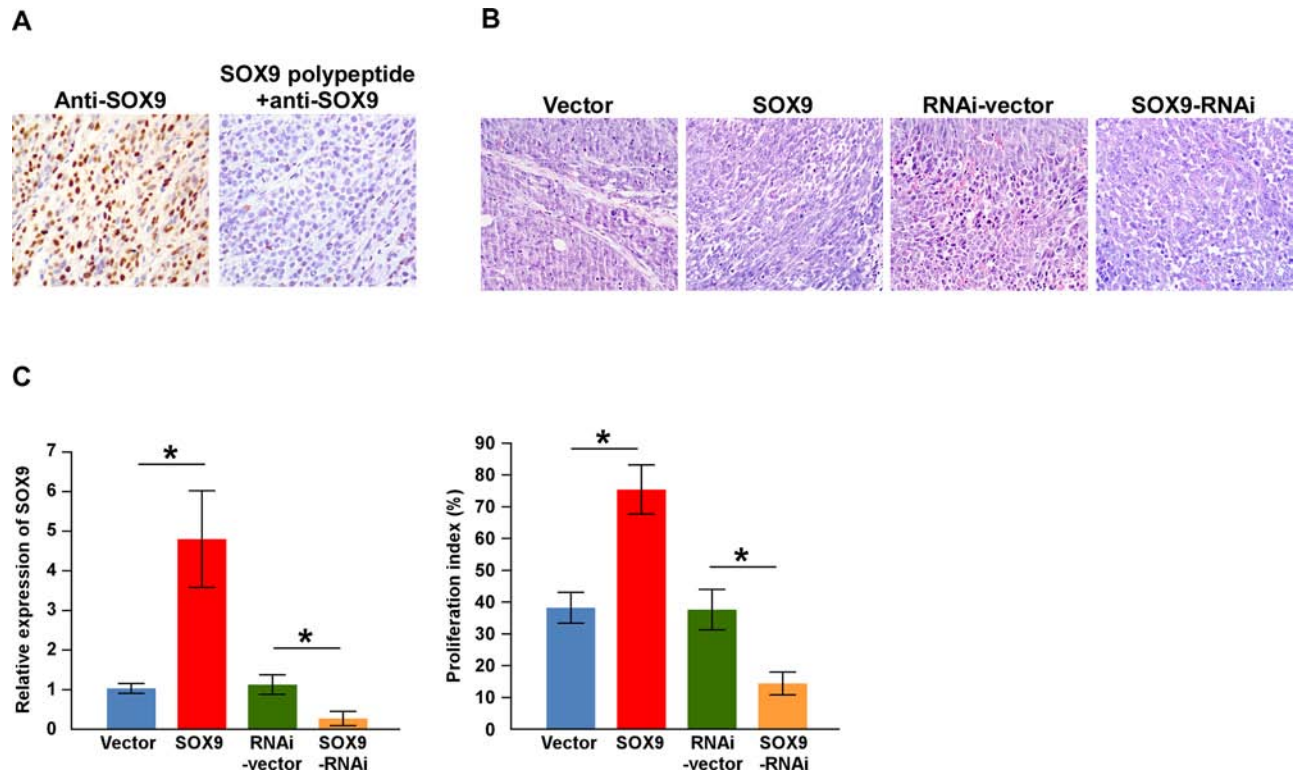
SUPPLEMENTARY FIGURES AND TABLES



Supplementary Figure S1: SOX9 is overexpressed in ESCC cell lines and ESCC tissues. A–B. Real-time PCR analysis of *SOX9* expression in ESCC cell lines (A) and in eight paired ESCC (T) and adjacent non-tumor tissue (ANT) specimens (B). C. Statistical analyses of the MOD of *SOX9* staining in eight paired ESCC (T) and adjacent non-tumor tissue (ANT) specimens. Bars represent the mean ± SD of three independent experiments. **P* < 0.05.



Supplementary Figure S2: Kaplan–Meier analysis of correlation between SOX9 protein levels and survival in patient subgroups. **A.** Comparison of the statistical significance of the difference between the survival curves of patients with high and low SOX9 expression in the clinical Stage I+II (left) or clinical Stage III+IV (right) subgroups. **B.** Comparison of the statistical significance of the difference between the survival curves of patients with high and low SOX9 expression in the T1–T2 (left) and T3–T4 (right) subgroups. *P*-values were calculated using the log-rank test.



Supplementary Figure S3: Upregulation of SOX9 enhances the tumorigenicity of ESCC cells *in vivo*. **A.** The specificity of anti-SOX9 antibody was verified by IHC staining with anti-SOX9 or anti-SOX9 combined with recombinant SOX9 polypeptide, which completely blocked the staining by anti-SOX9. **B.** Hematoxylin and eosin staining of the tumors in the mice. **C.** Relative expression of SOX9 and the proliferation index indicating Ki67 expression as determined by IHC staining in the mice.

Supplementary Table S1: Clinicopathological characteristics of patient samples and SOX9 expression in ESCC

	Number of cases (%)
Gender	
Male	116(74.8)
Female	39(25.2)
Age (years)	
≤57	80(51.6)
>57	75(48.4)
Clinical stage	
I	7(4.5)
IIA	70(45.2)
IIB	15(9.7)
III	56(36.1)
IV	7(4.5)
T classification	
T1	9(5.8)
T2	38(24.5)
T3	95(61.3)
T4	13(8.4)
N classification	
N0	85(54.8)
N1	70(45.2)
M classification	
M0	148(95.5)
M1	7(4.5)
Differentiation	
Well	70(45.2)
Moderate	56(36.1)
Poor	29(18.7)
Vital status (at follow-up)	
Alive	41(26.5)
Death	114(73.5)
Expression of SBSN	
Low expression	78(50.3)
High expression	77(49.7)

Supplementary Table S2: Spearman correlation analysis of SOX9 expression and clinical pathologic factors

Variables	SOX9 expression level	
	Spearman correlation	P-value
Gender	-0.130	0.107
Age	0.026	0.745
Clinical stage	0.683	<0.0001
T classification	0.323	<0.0001
N classification	0.628	<0.0001
M classification	0.219	0.006
Differentiation	0.220	0.006
Tumor size	0.367	<0.0001
Survival time	-0.730	<0.0001
Survival status (Alive/death)	0.303	<0.0001