**Supplementary Figure Legends**

**Supplementary Figure S1.** Proportions of patients with high and low TRIM31 expression levels and various clinical manifestations of OSCC. Percentages of patients with different TRIM31 levels according to A) tumor size, B) TNM stage, C) T classification, and D) lymph node metastasis. High expression, tumor tissue with high TRIM31/p-AKT expression; Low expression, tumor tissue with low TRIM31/p-AKT expression.

**Supplementary Figure S2.** The expression levels of TRIM31 in different OSCC cell lines and the efficiency of up- and down-regulation of TRIM31 in the OSCC cells. A) The protein levels of TRIM31 in four human OSCC cell lines (Fadu, HSC6, CAL27 and HSC3) and in HOEC cell line were detected by western blotting assay, with HOEC as the normal control; B, C) The knockdown efficiency of the Sh-TRIM31 transfected CAL27 cells, and D, E) the overexpressing efficiency of the TRIM31-CDS transfected HSC6 cells were detected by qRT-PCR and western blotting assays. In B, C), Control, untransfected cells; Sh-NC, cells transfected with empty vectors; Sh-TRIM31s, cells transfected with Sh-TRIM31s; \*\*\*p< 0.001 compared with Sh-NC. In D, E), Control, untransfected cells; Vector, cells transfected with empty vectors; Oe-TRIM31, cells transfected with TRIM31-CDS; \*\*\*p< 0.001 compared with Oe-TRIM31.