

### Supplementary materials

**Figure S1.** Expression levels of key genes in HNSCC cells in the steady-state growth. The RT-qPCR results revealed the differential expression of *YAPI*, *CDH1*, *Snai1*, *CTNNB1*, *Oct4*, *EGFR*, and *PD-L1* in HNSCC cells. The relative mRNA levels of key genes were normalized to those of  *$\beta$ -actin*.

**Figure S2.** Inhibitory effect of VP on the migration of HNSCC cells. Cells were cultured for 24 h after VP light activation, and the HNSCC cell migration distance was determined using a wound-healing assay. The data are presented as the means  $\pm$  SEMs.  $*P < 0.05$ ,  $**P < 0.01$ ,  $***P < 0.001$  by Student's t-test

**Figure S3.** Effects of VP on the expression of E-cadherin and Twist1 in HNSCC cells. The levels of E-cadherin and Twist1 proteins were determined by Western blot analysis of HNSCC cells treated with VP for 12 h.

Figure S1

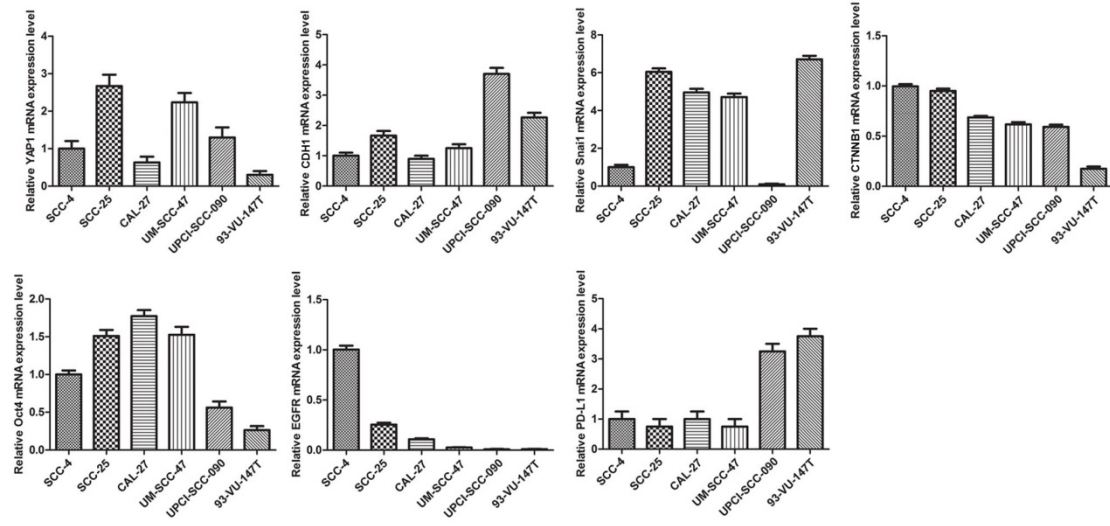


Figure S2

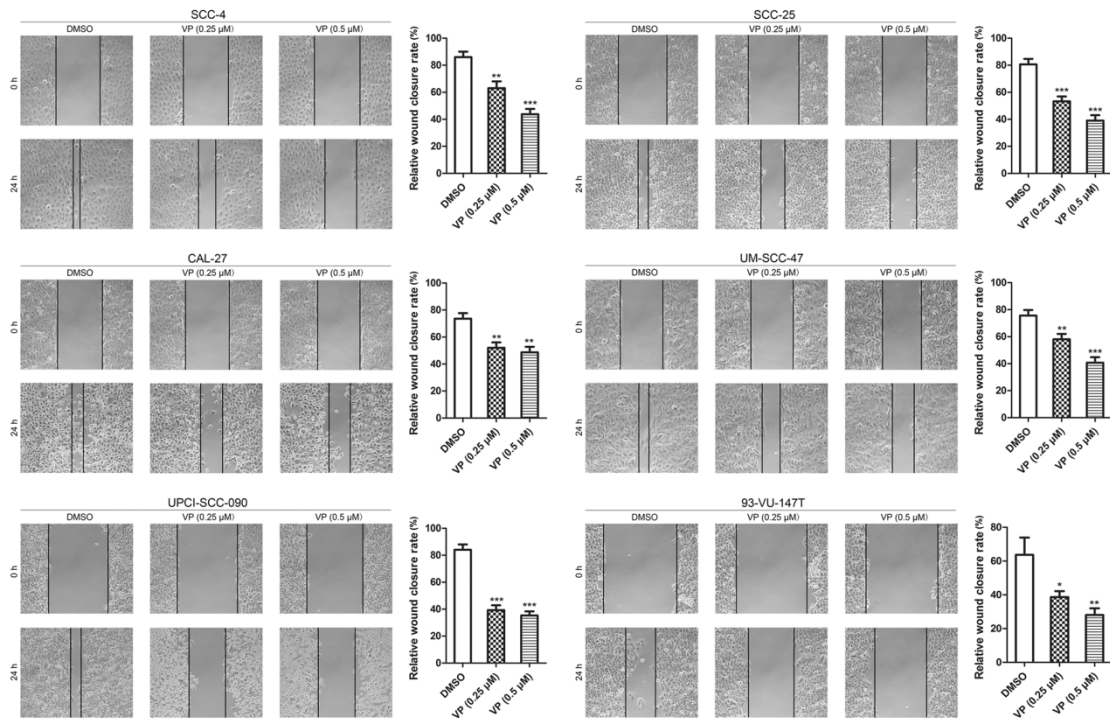


Figure S3

