

**Supplementary Fig. S3.** (A, B) After knockdown of  $\beta$ -catenin in 5-8F and HONE1 cell lines, the knockdown effect was validated using polymerase chain reaction and western blot. (C, D) After overexpression of palatal, lung, and nasal epithelial clone (PLUNC) in 5-8F and HNE2 cell lines, the effect of overexpression was verified using western blot. (E, F) The expression of  $\beta$ -catenin in the nucleus and cytoplasm after overexpression and knockdown of PLUNC. NC, normal control; GAPDH, glyceraldehyde 3-phosphate dehydrogenase.