## SUPPLEMENTARY FIGURE

**Figure S1** SUMO1 and Ubc9 with or without Senps were transfected into type Mettl3 or SUMOylation-defective Mettl3-(KR) expressing cells in the presence of serum or not, followed by the IP immunoblot assay for detection of SUMOylated bands with anti-METTL3 antibody.

**Figure S2** A and B IP immunoblotting analysis examining SUMOylation of endogenous Mettl3 from whole-cell extracts after incubating in serum-containing or serum-free medium with anti-SUMO1 antibody (**A**) or anti-Mettl3 (**B**) antibody, followed by western blotting with anti-UBC9 and anti-Mettl3 antibody.

**Figure S3** IP immunoblot analysis was conducted with the anti-Mettl3 antibody and whole-cell extracts from PLC/PRF/5 or HCCLM3 cells stimulated with or without serum. Cells were harvested and subjected to co-immunoprecipitation with the anti-Mettl3 or control IgG antibody, followed by western blotting for detection of SUMOylated bands with anti-METTL3 antibody.

Figure S4 Effects of Mettl3-WT-, Mettl3-KR-, Snail- and Mettl3-KR/Snail-expressing cells on cell migratory ability were detected by wound scratch assay. The area of wound scratch in response to serum stimulation is shown, with 100% representing the control at 0 h. Data are presented as mean  $\pm$  s.d. \* p < 0.05, \*\* p < 0.01; Student's t-test.

## Figure S1



## Figure S2



## Figure S3



