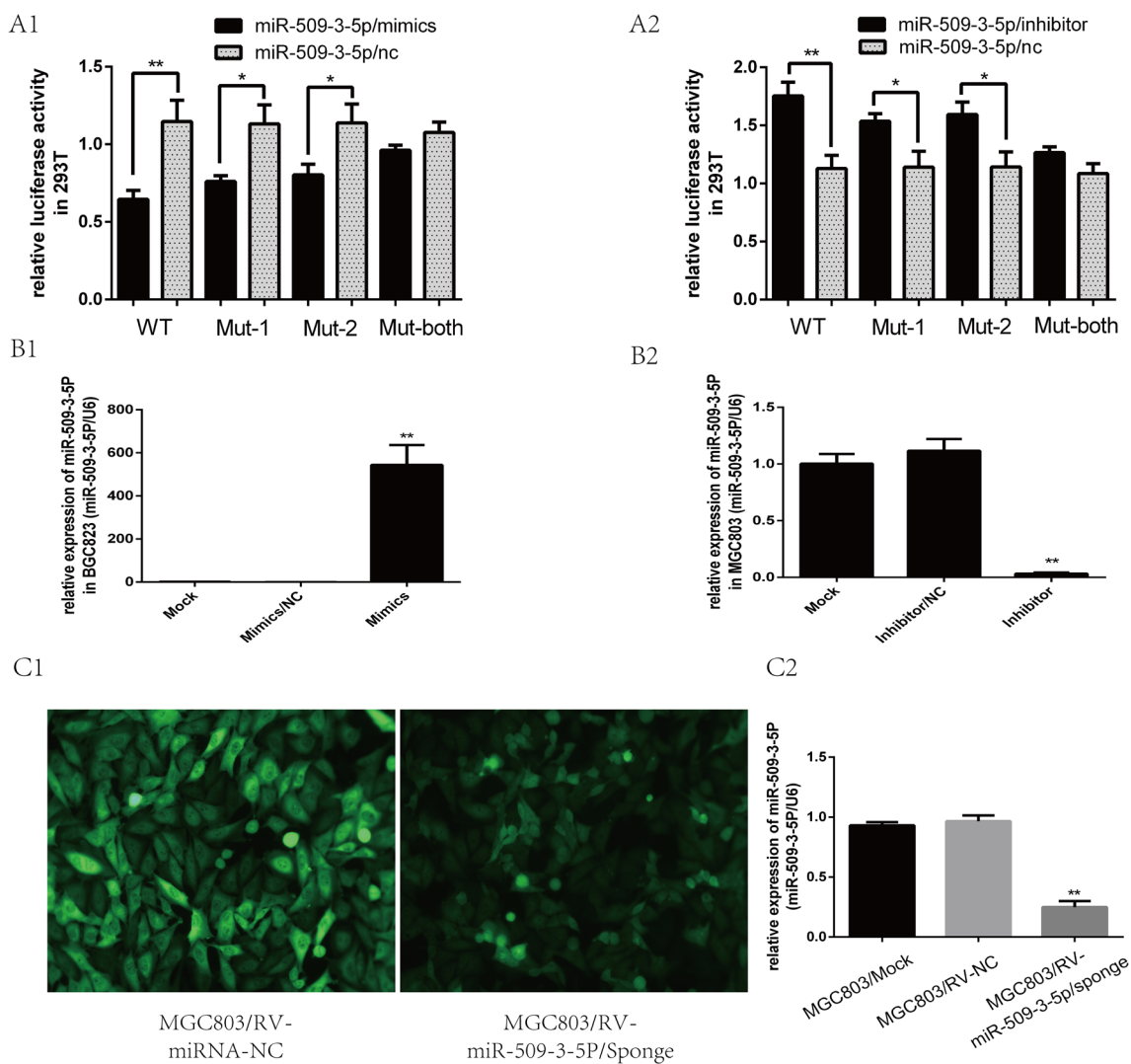
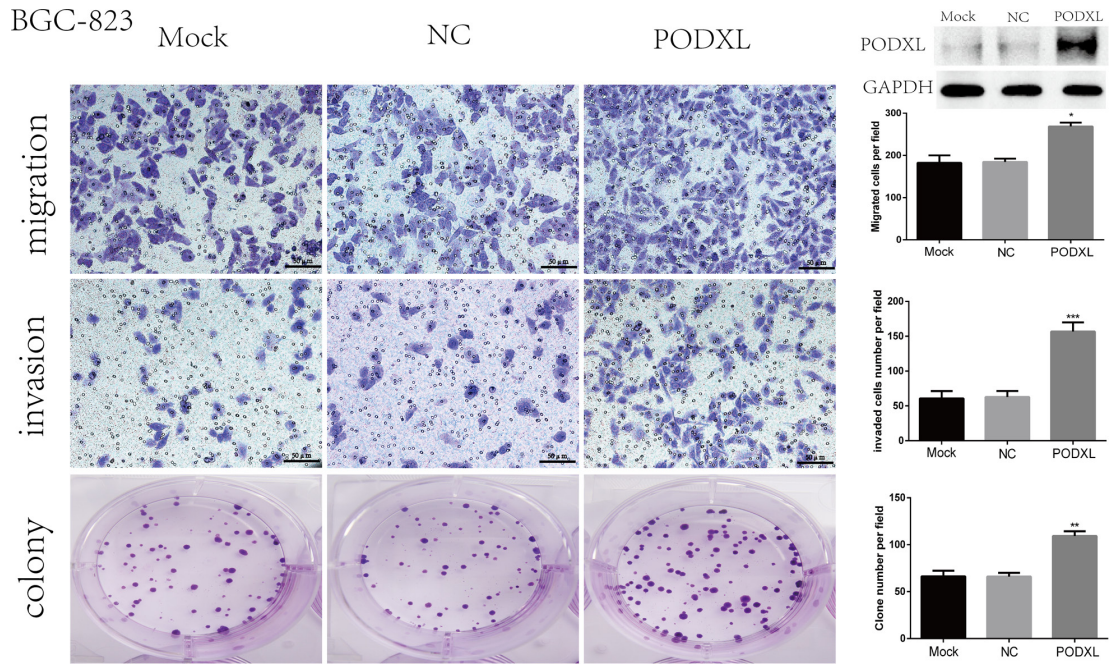


## miR-509-3-5P inhibits the invasion and lymphatic metastasis by targeting PODXL and serves as a novel prognostic indicator for gastric cancer

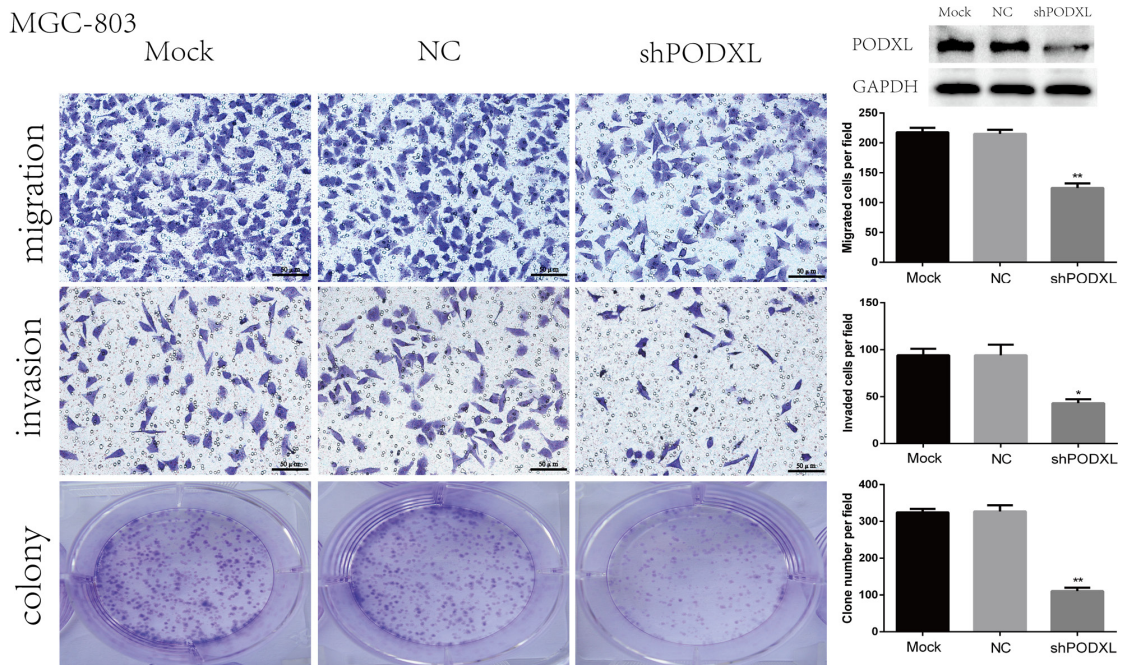
### Supplementary Materials



**Supplementary Figure 1: The expression of miR-509-3-5P in BGC823 and MGC803.** (A) Wild type (WT) or mutant-1(mut-1) or mutant-2 or mutant-both PODXL 3'-UTR was transfected into 293T with miR-509-3-5P/NC or miR-509-3-5P mimics or miR-509-3-5P/inhibitor, respectively. Firefly and Renilla luciferase signals were performed for luciferase activity after 36 h transfection. (B1–B2) The expression of miR-509-3-5P in BGC823 and MGC803 transfected with none, miR-509-3-5P/NC, miR-509-3-5P/mimics, miR-509-3-5P/inhibitor. qRT-PCR was used for the detection. (C1) Representative images of stable cell lines of MGC803 transfected with retrovirus miR-509-3-5P/NC, miR-509-3-5P/sponge. (C2) The expression of miR-509-3-5P in MGC803 transfected with miR-509-3-5P and miR-509-3-5P/sponge retrovirus, respectively. Mean  $\pm$  SEM was shown for these data. (\* $p < 0.05$ , \*\* $p < 0.01$ ).



**Supplementary Figure 2: The role of PODXL in the migration, invasion and clonogenicity of BGC823.** Representative images of BGC823 migration, invasion and colony in mock, PODXL/negative control (NC), and PODXL group. Overexpression of PODXL can promote the migration, invasion and colony abilities in BGC823. Mean  $\pm$  SEM was shown for these data. (\* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ ).



**Supplementary Figure 3: The role of PODXL in the migration, invasion and clonogenicity of MGC803.** Representative images of MGC803 migration, invasion and colony in mock, PODXL/negative control (NC), and PODXL group. Knockdown of PODXL can suppress the migration, invasion and colony abilities in MGCC803. Mean  $\pm$  SEM was shown for these data. (\* $p < 0.05$ , \*\* $p < 0.01$ ).