

Figure S1. Screening of UTP4-targeting sgRNAs by reverse transcription-quantitative PCR in gastric cancer cells. Relative UTP4 mRNA expression levels (normalized to GAPDH) in AGS and MKN-45 cells after transfection with three different sgRNAs targeting UTP4 (sgUTP4#1, #2, #3) or a NTC sgRNA. Data are presented as the mean \pm SD from three independent experiments. Statistical significance was determined by unpaired Student's t-test comparing each sgUTP4 group to the NTC group within the same cell line. ***P<0.001. sgRNA#2 showed the most potent knockdown efficiency and was selected for subsequent functional studies. sgRNA, small guide RNA; NTC, non-targeting control.

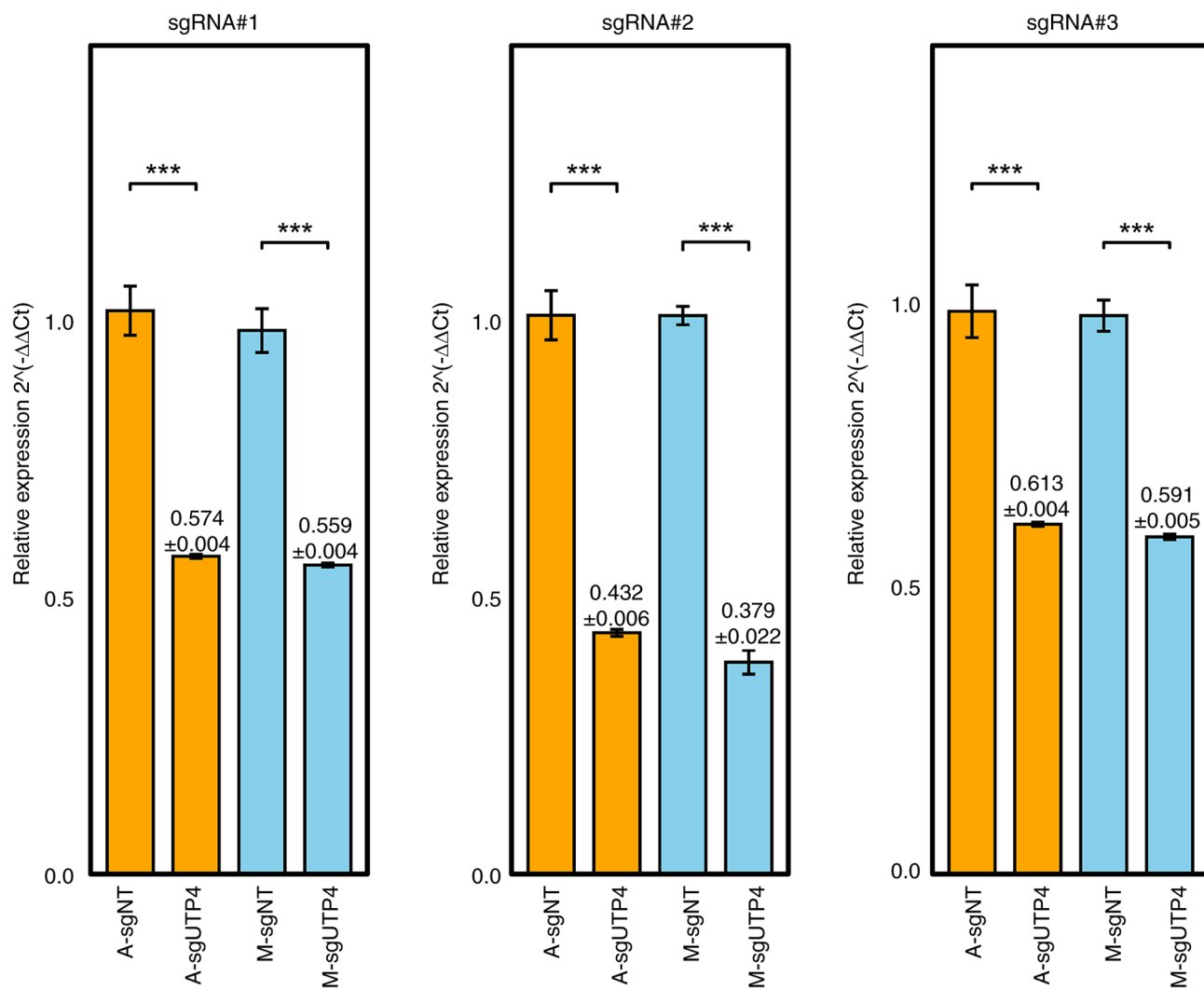


Figure S2. Association between UTP4 expression and DFI in patients with gastric cancer. Kaplan-Meier curve of patients with STAD stratified by UTP4 expression (High/Low). HR=0.884 (95% CI: 0.422-1.855), log-rank test, P=0.39. UTP4 expression was not significantly correlated with DFI, suggesting no association with early tumor recurrence. DFI, disease-free interval; STAD, stomach adenocarcinoma; HR, hazard ratio; CI, confidence interval.

