Figure S1. GTSE1 negatively regulates the protein expression level of SNAIL1 in PLC/PRF/5 cells. Endogenous expression of SNAIL1 was detected via western blotting after GTSE1 (A) overexpression or (B) knockdown in PLC/PRF/5 cells. Tubulin was used as a loading control. Semi-quantitative data of optical band densitometry are shown. The data are presented as the mean ± SD (n=3). ***P<0.001 vs. Vector group or siNC group. GTSE1, G_2 and S phase-expressed-1; SNAIL1, snail family transcriptional repressor 1; NC, negative control; si, small interfering RNA; HA, human influenza hemagglutinin epitope.

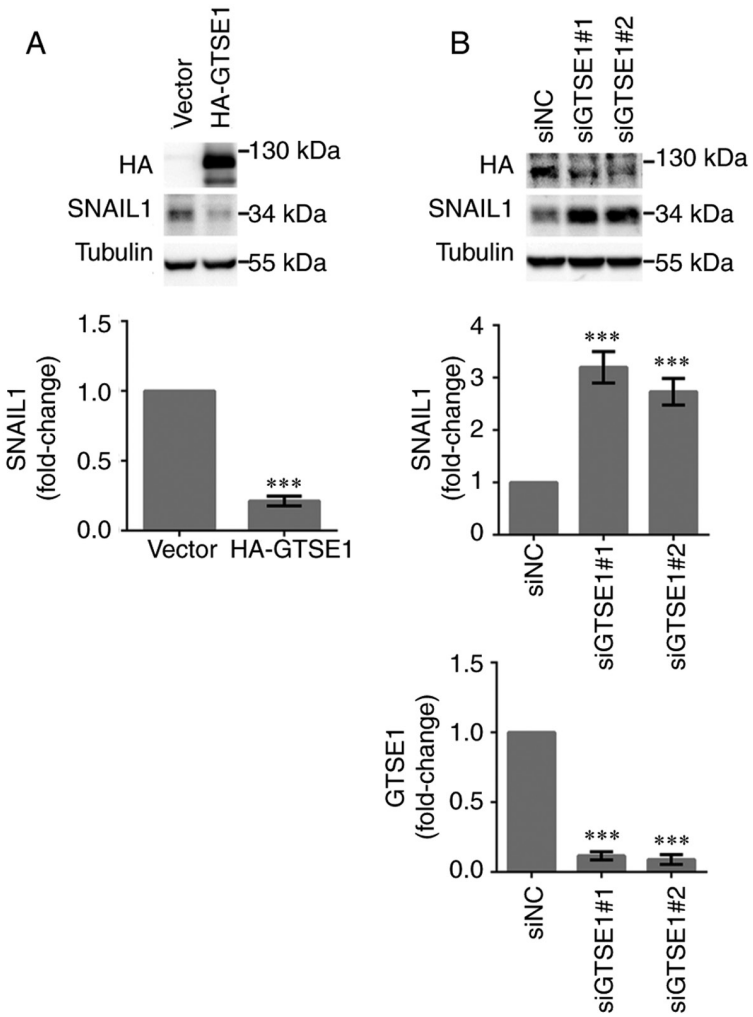

Figure S2. Exogenous Flag-SNAIL1 overexpression confirmed via western blotting in both Huh7 and PLC/PRF/5 cells. SNAIL1, snail family transcriptional repressor 1.

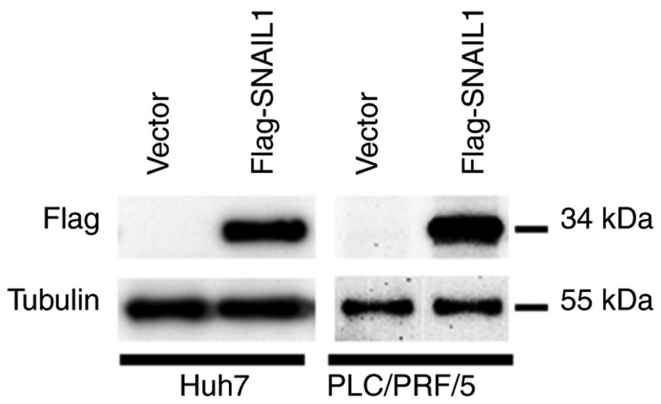

Figure S3. GTSE1 enhances the nuclear export of SNAIL1 in PLC/PRF/5 cells. (A) SNAIL1 expression levels were increased in the cytoplasmic fraction upon GTSE1 overexpression in PLC/PRF/5 cells. Left panel: Representative images of three independent immunofluorescence analysis assays showing the cellular localization of exogenously expressing Flag-SNAIL1 with or without HA-GTSE1 co-expression. Scale bar, 50 μm. Right panel: Quantification of the percentage of 50 exogenous Flag-SNAIL1-positive cells according to the subcellular localization of Flag-SNAIL1 for each group. ***P<0.001 vs. Vector group. (B) Left panel: Representative images of three independent immunofluorescence analysis assays showing the cellular localization of exogenously co-expressing Flag-SNAIL1 and HA-GTSE1 with or without LMB (50 ng/ml) treatment for 12 h. Scale bar, 50 μm. Right panel: Quantification of the percentage of 50 Flag-SNAIL1 and HA-GTSE1 double-positive cells according to the subcellular localization of Flag-SNAIL1 for each group. **P<0.01 vs. -LMB group. Cy, cytoplasm; Nu, nucleus; GTSE1, G_2 and S phase-expressed-1; SNAIL1, snail family transcriptional repressor 1; LMB, leptomycin B.

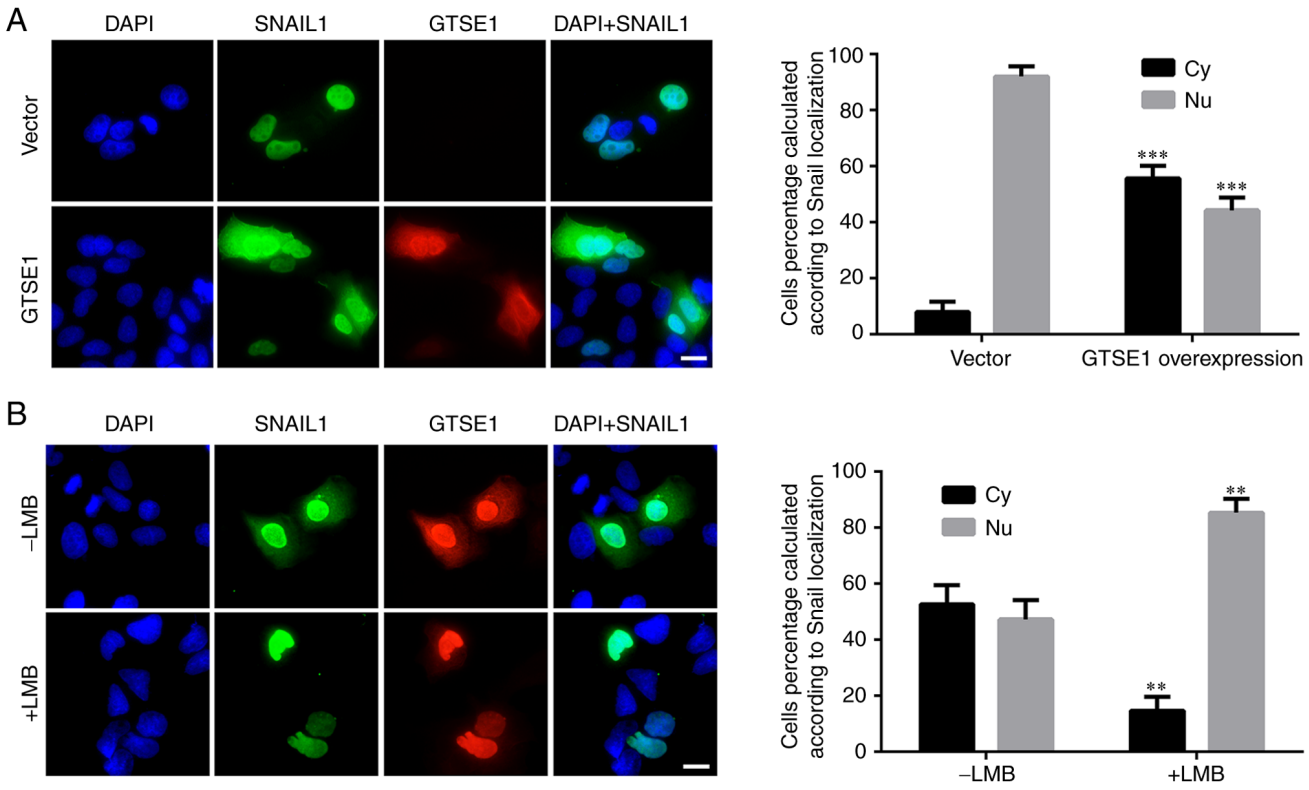

Figure S4. Cell cycle and proliferation analysis of Huh7 cells after GTSE1 knockdown with or without TGF-βI treatment. (A) Representative images of three independent cell cycle assays for each group. (B) Quantification of the percentage of cells in different cell cycle phases for each group (n=3). NS vs. siNC group with or without TGF-βI treatment. (C) Viability of Huh7 cells after GTSE1 knockdown with or without TGF-βI treatment at indicated times. NS, not significant; GTSE1, G_2 and S phase-expressed-1; NC, negative control; si, small interfering RNA.