# Supplementary figures

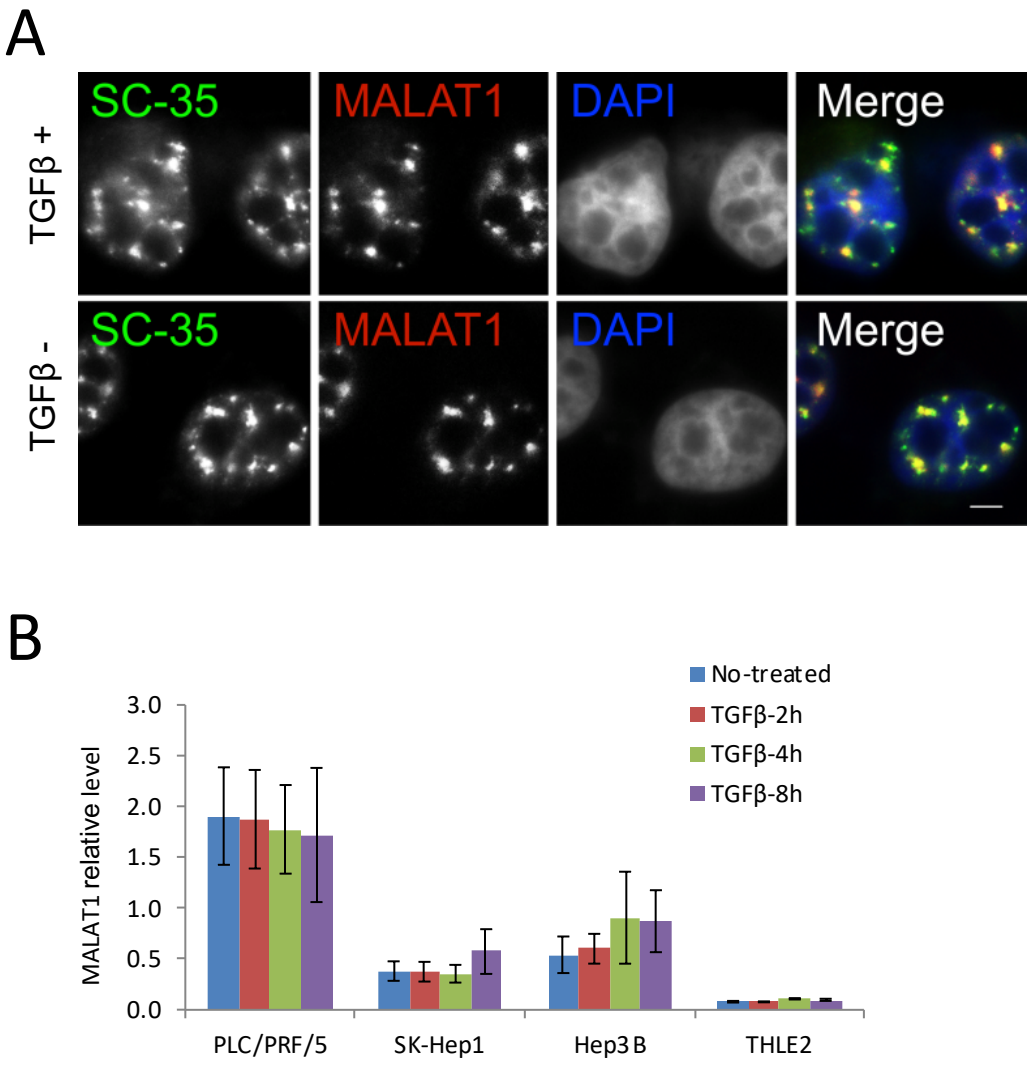


**Figure S1.** **A.** FISH-IF staining shows co-localization of MALAT1 and SC-35 (a nuclear speckle marker) in Hep3B cells with or without TGF-β1 treatment (5ng/ml of TGF-β1 for 1 hour), scale bar, 10μm. **B.** MALAT1 levels as determined by qRT-PCR in cells treated with TGF-β1 (5ng/ml) for 2, 4 or 8 hours. TGF-β1 treatment had no effect on MALAT1 levels in PLC/PRF/5, SK-Hep1, Hep3B and THLE2 cells. The qRT-PCR data were analyzed by ANOVA and the results are expressed as means ± s.d (n=5).

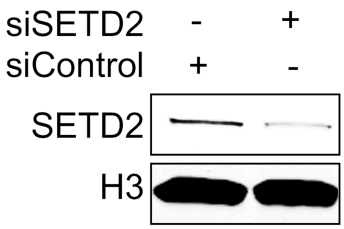


**Figure S2.** The efficacy of SETD2 knockdown by siRNA in Hep3B cells as determined by Western blot analysis.

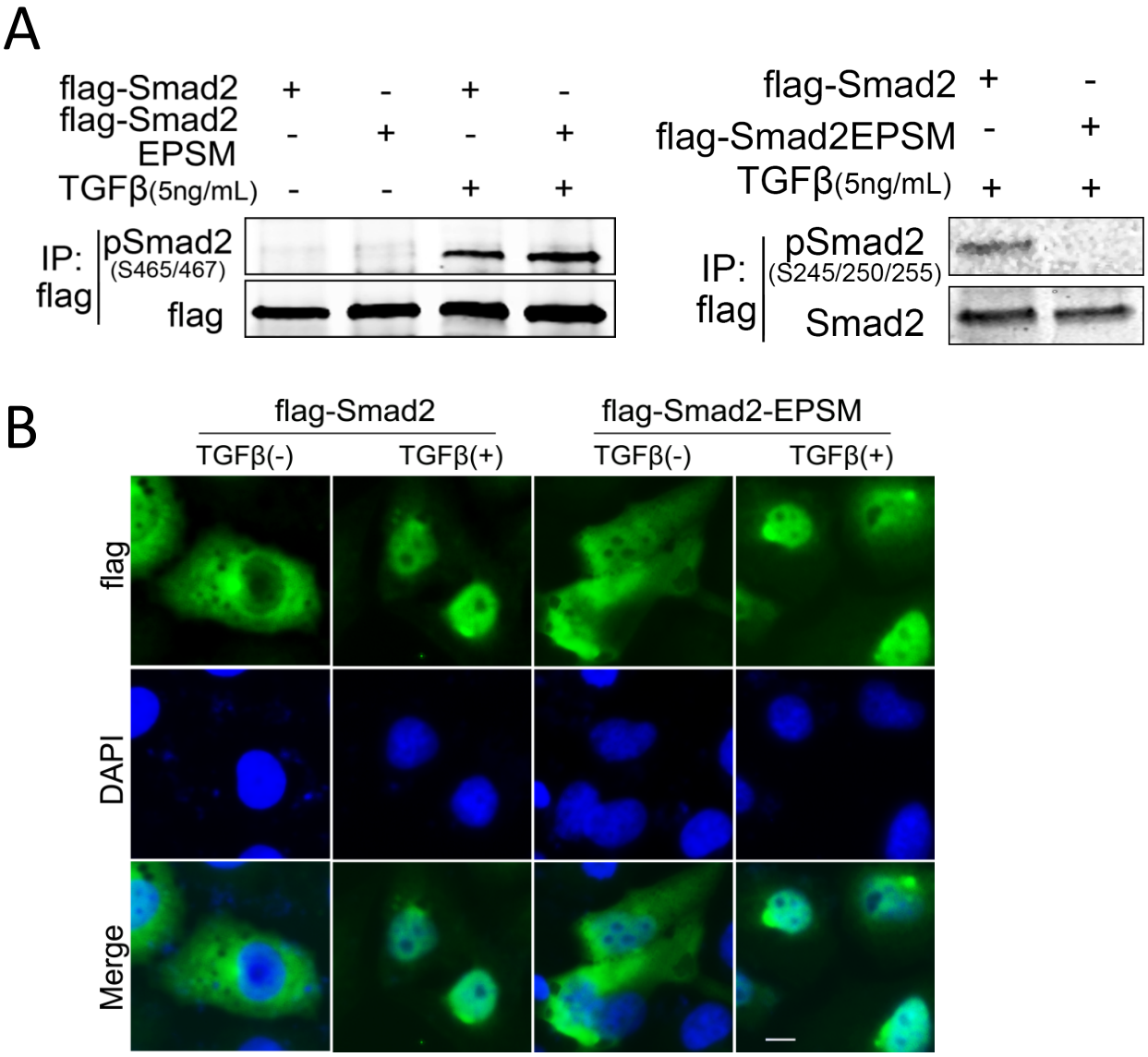


**Figure S3. A.** PLC/PRF/5 cells were treated with 5ng/ml TGF-β1 for 2 hours. Immunoprecipitation and Western blotting analyses were performed by using indicated antibodies. The C-terminal S465/467 phosphorylation in Smad2 and linker region mutated Smad2 (Smad2-EPSM) is shown in the left panel. The linker region S245/250/255 phosphorylation in Smad2 is shown in the right panel. **B.** IF shows translocation of Smad2 and Smad2-EPSM to the nuclei in PLC/PRF/5 cells (treated with 5ng/ml TGF-β1 for 1 hours), scale bar = 10 μm.

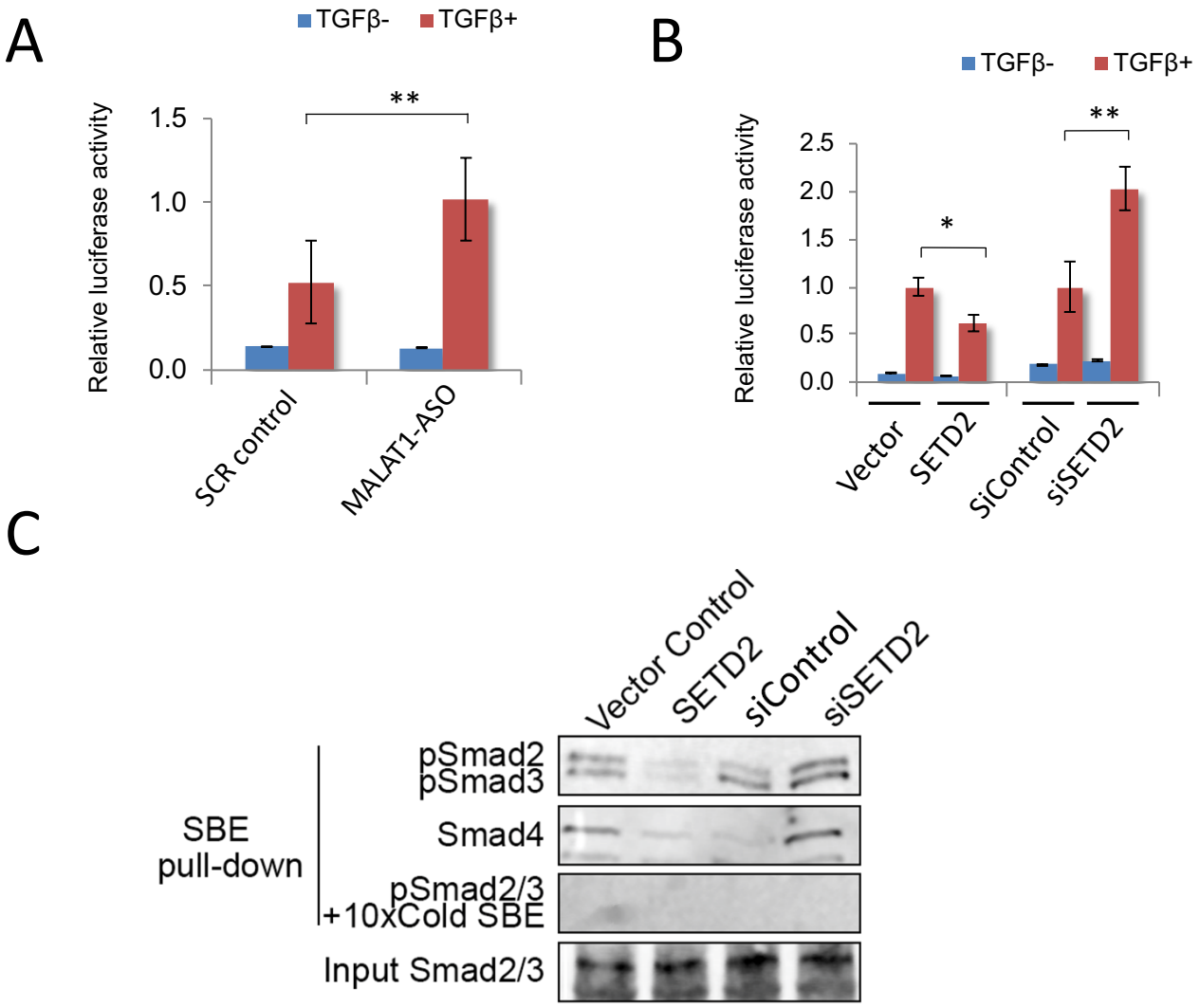


**Figure S4. A.** Hep3B cells were co-transfected with p3TP-lux reporter plasmid and MALAT1 specific or control 2'-MOE gapmer ASOs. Twenty-four hours after transfection, cells were stimulated with 5ng/ml TGF-β1 or vehicle for additional 24 hours. Then, the cells were lysed and subjected to dual-luciferase assay (n=3). Statistical analyses were performed by using a two tailed Student's t test method and the results are shown as mean ± s.d., **P < 0.01. **B.** Hep3B cells were co-transfected with p3TP-lux reporter plasmid and SETD2 expression plasmid, siSETD2 or their corresponding controls. Twenty-four hours after transfection, cells were stimulated with 5ng/ml TGF-β1 or vehicle for additional 24 hours. The cells were then lysed and subjected to dual-luciferase assay (n=3). Statistical analyses were performed by using a two tailed Student's t test method and the data are shown as mean ± s.d., *P < 0.05; **P < 0.01. **C.** Cell lysates from Hep3B cells transfected with SETD2 overexpressed plasmids, siSETD2, or respective controls were subjected to DNA pull-down with biotinylated SBE probes followed by immunoblotting with indicated antibodies. The cells were stimulated with 5ng/ml TGF-β1 for 2 hours before being lysed.

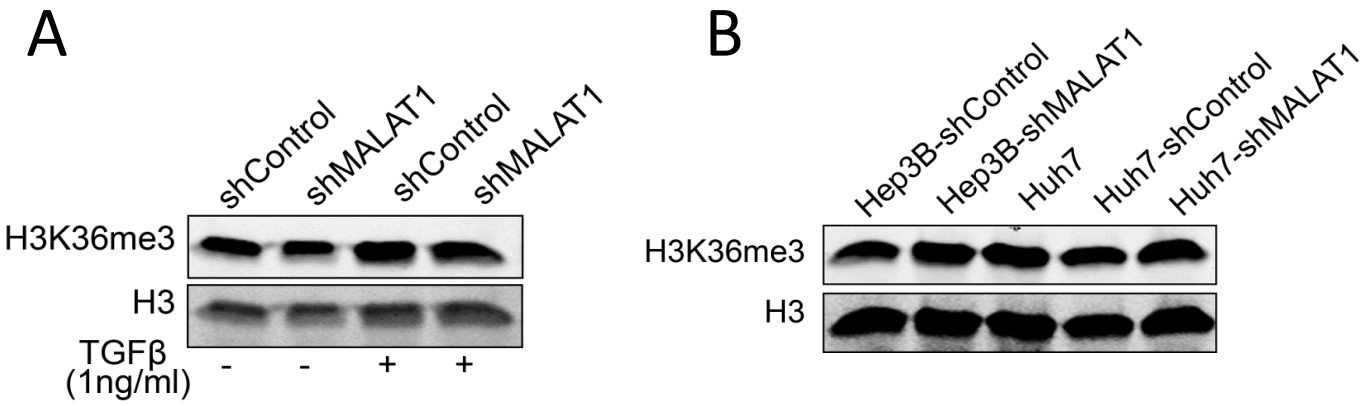


**Figure S5. A.** Immunoblotting for H3K36me3 in MALAT1 depleted or control Hep3B cells with or without TGF-β1 treatment (1ng/ml for 24 hours). **B.** Immunoblotting for H3K36me3 in Hep3B and Huh7 cells with or without MALAT1 depletion.

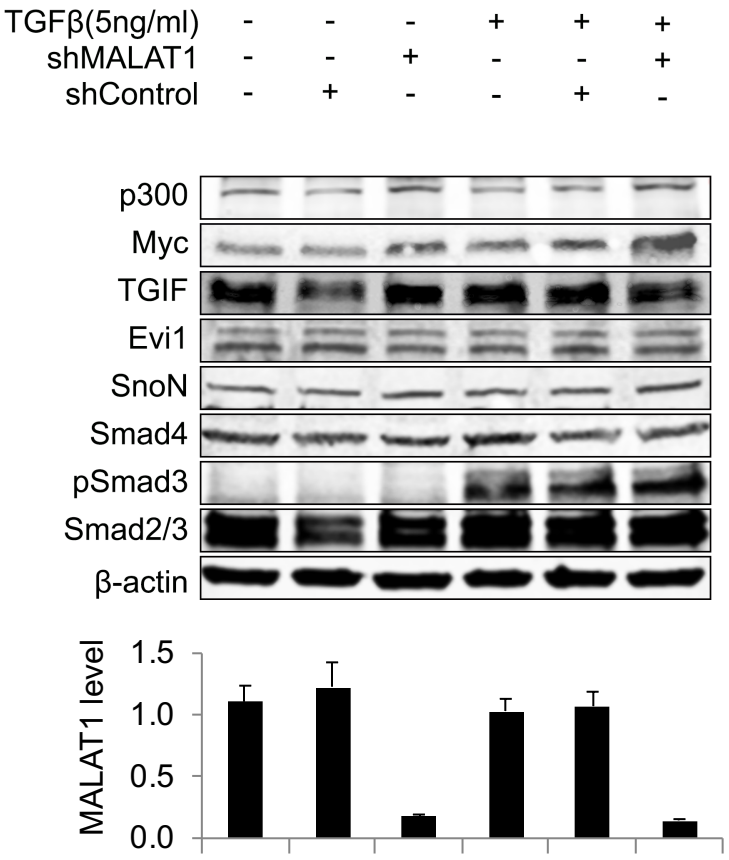


**Figure S6.** Immunoblotting results show the levels of indicated proteins in MALAT1 depleted and control Hep3B cells with or without TGF-β1 treatment (5ng/ml for 24 hours) (upper panel). The levels of MALAT1 in these cells were quantified by qRT-PCR (lower panel).

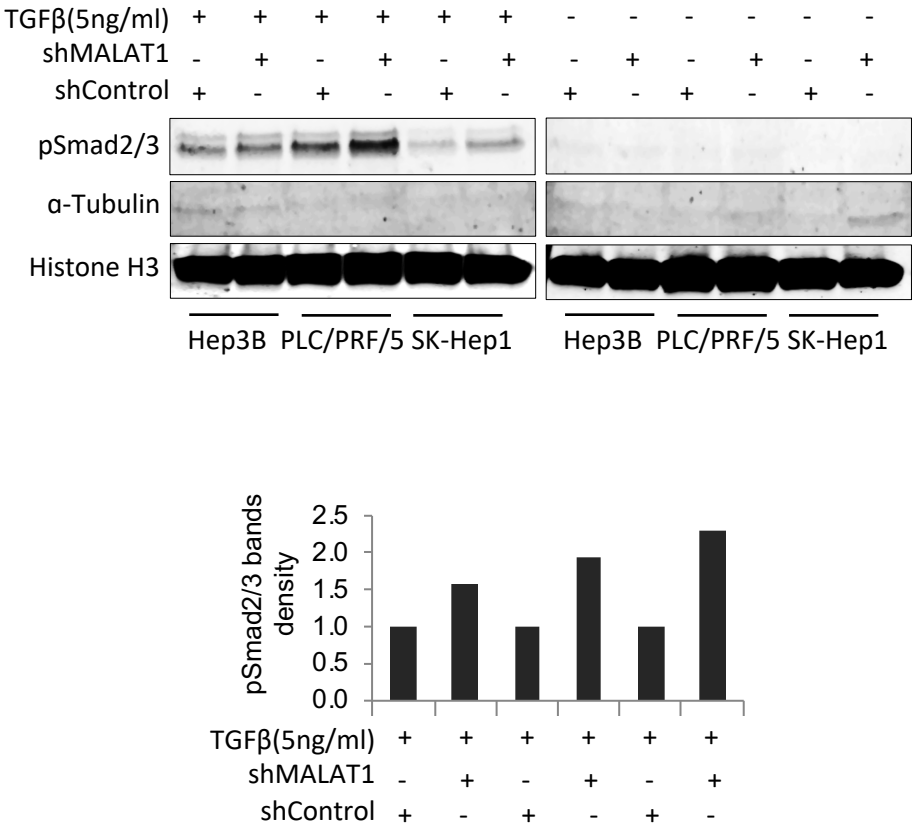


**Figure S7.** Immunoblotting for pSmad2/3 in Hep3B PLC/PRF/5 and SK-Hep1 cells with or without TGF-β1 treatment (for 2 hours). Nuclear proteins were obtained for Western blotting analysis using antibodies against pSmad2/3. Immunoblotting for α-Tubulin was performed. The pSmad2/3 band densities from TGF-β1 treated cells were quantified by using Odyssey image software (Li-Cor Bioscience, Lincoln, NE).