## Supplementary materials

Effect of the Wnt/β-catenin inhibitor XAV939 on endogenous tripartite motif 52 (TRIM52) expression. Endogenous TRIM52 expression was determined to ascertain the nature of the association between TRIM52 and Wnt/β-catenin. As depicted in Fig. S1, it was determined that endogenous TRIM52 expression had no significant effects upon Wnt/β-catenin pathway inhibition. Based on these data and the observation that the Wnt/β-catenin inhibitor XAV939 could significantly regulate the cell cycle phase and reduce the expression levels of different markers tested (β-catenin, c-Myc, Cyclin D1, proliferating cell nuclear antigen), it was inferred that TRIM52 is upstream of the Wnt/β-catenin pathway.

Figure S1. Effect of the Wnt/β-catenin inhibitor XAV939 on endogenous TRIM52 expression. H1975 and A549 cells were treated with vector/oeTRIM52 lentiviruses and 20  $\mu$ M XAV939 (Wnt/β-catenin inhibitor). (A and B) Reverse transcription-quantitative polymerase chain reaction and western blotting were used to analyze endogenous TRIM52 expression. \*\*\*P<0.001, oeTRIM52 + DMSO, compared with vector + DMSO; and \*\*+P<0.001, oeTRIM52 + XAV939, compared with vector + XAV939. TRIM52, tripartite motif 52; DMSO, dimethyl sulfoxide.

