Supplemental Figure 1: Expression of siRNA-resistant TICRR in transgenic cell lines.

Immunoblotting of TICRR protein expression levels in U2OS control and TICRR transgenic lines transfected with control siRNA (C; lanes 1,3,5,7) or TICRR siRNA (T; lanes 2,4,6,8). Lighter (top) and darker (bottom) exposures.

**Supplemental Figure 2: Truncations of TICRR**<sup>TESE</sup> do not stimulate DNA replication.

(A) Schematic of full-length TICRR and TICRR<sup>TESE</sup> protein (top); EGFP-TICRR 954-1016 truncation (middle), and the  $\Delta M$  domain truncations (bottom). (B) Immunoblot showing EGFP-TICRR (954-1016) (lane 1) and TICRR<sup>TESE</sup> (954-1016)(lane2) protein expression (left panel, anti-GFP) and TICRR  $\Delta M$  domain truncations (right, lanes 4,5). Histone H3 and TOPOII $\alpha$  are shown as loading controls. (C) Quantification of mean EdU signal intensity from EdU FACS profiles normalized to U2OS control. Error bars represent standard deviation.

Supplemental Figure 3: DNA content profiles are altered in Ticrr<sup>TESE</sup> cells.

Flow cytometry data of propidium iodide stained U2OS, TICRR<sup>WT</sup>, and Ticrr<sup>TESE</sup> cells were analyzed for DNA content. Ticrr<sup>TESE</sup> cells display a reduction in the percent of cells in S phase compared to U2OS and TICRR<sup>WT</sup> (A) and an increase in the percent of cells in G1 (B).





