## **Supplementary Materials**

**Supplementary Figure 1.** (A) EW8 cells were treated with different doses of auranofin for 24 hours and then protein synthesis was quantified using puromycin. (B-C) EW8 (B) and TC71 (C) cells were treated with auranofin (5  $\mu$ M) for six hours and then labeled with O-propargyl-puromycin for quantification of protein synthesis by flow cytometry. Cycloheximide (CHX) was used as a positive control for a drug that inhibits protein synthesis. (D-E) EW8 (D) and TC71 (E) cells were treated with hydrogen peroxide (100  $\mu$ M) for three hours, auranofin (5  $\mu$ M) for six hours, or auranofin (5  $\mu$ M) for 24 hours. Cell viability was then quantified using 0.4% Trypan Blue (ThermoFisher), which stains dead cells, with a DeNovix Cell Drop BF automated cell counter.

**Supplementary Figure 2.** (A) BJ and RPE cells were treated with auranofin (5  $\mu$ M), NAC (5 mM), or the combination for twenty-four hours. Cells were labeled with puromycin to quantify protein synthesis and then lysates were collected for immunoblotting. (B-C) Dose response curves for non-transformed (B) BJ and RPE (C) cells treated with auranofin. Cell viability was assessed 72 hours after drug was added using the AlamarBlue assay. Error bars represent the mean  $\pm$  SD of three technical replicates.

**Supplementary Table 1.** Reverse phase protein array (RPPA) data for TO-4E-BP1-Ala sarcoma cell lines treated with vehicle or doxycycline, to induce expression of 4E-BP1-Ala.

**Supplementary Table 2.** Overlap of the RPPA data for proteins that are downregulated by >1.25-fold in the TO-4E-BP1-Ala sarcoma cell lines.