



**Supplemental Figure. 1. Evaluation of effects of a lower concentration of SA4503 and PRE084 in attenuating cell death and oxidative stress induced by tBHP in 661W cells.** (A) 661W cells were exposed to tBHP [55  $\mu$ M] to induce oxidative stress in the presence/absence of Sig1R ligands SA4503 [3  $\mu$ M], PRE084 [3  $\mu$ M], or (+)-PTZ [3  $\mu$ M] for 24h and in the presence of BD1063, a Sig1R antagonist. Cell viability was measured using the MTT assay. Three independent experiments were performed with 4 repetitions/assay. (B) 661W cells were seeded on coverslips for 18h after which they were exposed 2h to tBHP [55  $\mu$ M] in the presence/absence of SA4503 [3  $\mu$ M], PRE084 [3  $\mu$ M] or (+)-PTZ [3  $\mu$ M, 50  $\mu$ M]. They were incubated with CellROX® Green Reagent to detect ROS; green fluorescent signals indicating ROS were visualized by epifluorescence. DAPI was used to label nuclei (blue). Calibration bars = 100  $\mu$ m. (C) Fluorescence intensity was quantified by ImageJ. The experiment was performed 3 times with two repetitions per assay. One-way ANOVA, significance for both experiments is indicated in reference to tBHP group: \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ , \*\*\*\* $p < 0.0001$ , ns= not significant.