



**Figure S6.** Genetic knock-down or pharmacological inhibition of HER3 synergizes with PLX4032 and AZD6244, respectively, to inhibit growth of *BRAF* mutant thyroid cancer cells. **A**, SW1736 cells were treated with PLX4032 (0-2000 nM) with or without 1  $\mu$ M lapatinib or after stable expression of a shRNA to HER3. Indicated concentrations of PLX4032 and lapatinib were added at day 0 and day 3 and growth was measured 6 days after the first treatment. Points represent percent change (mean  $\pm$  SD) in cell count of triplicate wells compared to untreated cells. **B**, SW1736 cells were treated with 2  $\mu$ M PLX4032 or 100 nM AZD6244 and lysates collected at 1 and 72 h. Immunoblotting shows induction of pHER3 by both inhibitors. **C**, SW1736 and 8505C cells were treated with increasing concentrations of AZD6244 alone (open bars) or in combination with 1  $\mu$ M lapatinib (black). Cells were collected and counted after 4 days of treatment. Bars represent percent change (mean  $\pm$  SD) in cell counts of triplicate wells compared to untreated cells.