Figure legends for supplemental figures

Supplemental Figure 1. Enhancement of ERK1/2, c-Fos, c-Jun, STAT3, and STAT5 signaling in BRAFi-resistant melanoma cells suggests additional candidates that influence PD-L1 expression. (A) Representative phospho-MAPK array analysis in parental (P) and PLX4032 resistant (R) K028 and M34 cell lines. (B) Pixel density changes in individual kinases in M34 parental (P) and PLX4032 resistant (R) cells related to (A). (C) Immunoblot analyses of ERK1/2, c-Fos, and c-Jun in parental(P) and PLX4032 resistant(R) cell lines revealing increases in p-ERK, p-cFos, and p-cJun in resistant cells. (D) Immunoblot analysis of STAT3, and STAT5 changes in parental (P) and PLX4032 (R) resistant melanoma cell lines demonstrating increases in pSTAT3 and pSTAT5 in resistant cells.

Supplemental Figure 2. The PI3K-mTOR-S6 pathway influences PD-L1 expression in BRAFi-resistant melanoma cells. (A) Changes in total S6 (T-S6) and phosphorylated-S6 (P-S6) in parental (P) and PLX4032-resistant (R) melanoma cells by immunoblot. The blot is representative of three independent experiments. (B) The effect of the PI3K inhibitor LY294002 (LY) on PD-L1 mRNA expression. The PLX4032-resistant lines K028, M34 and K029 were treated with LY (20µM) for 4 hours. Cells were treated with DMSO(D) as controls. The mRNA levels of PD-L1 were analyzed by qRT-PCR. The data are the average of two independent experiments. (C) Effects of LY on PD-L1 protein expression. The PLX4032-resistant lines K028, M34, and K029 were treated with LY (20µM) for 30 minutes and subjected to immunoblotting for total AKT (T-AKT) and phosphorylated AKT (P-AKT) (top) revealing decreases in phosphorylated-AKT as a function of drug exposure. Cells were exposed to LY for 72 hours for flow cytometry analysis of protein expression (bottom). Cells were treated with
DMSO as controls. Significant reduction in PD-L1 was seen in two of three cell lines. The data are average of three independent experiments. (D) Rad001 fails to alter significantly PD-L1 expression at the protein level in PLX4032 resistant cells. The PLX4032-resistant lines K028, M34, and K029 were treated with various doses of RAD001 (0.25µM, 0.5µM and 1.0µM) for 30 minutes and subjected to immunoblotting of S6 revealing decreases in P-S6 (top). Cells were treated with DMSO(D) as controls. The blot is representative of three independent experiments. PD-L1 frequencies with or without treatment were analyzed by flow cytometry following 72 hours of treatment and demonstrated no significant changes in PD-L1 expression(bottom). The data are the average of three independent experiments. (E) Knockdown of S6 fails to alter PD-L1 expression. The PLX4032-resistant lines K028, M34, and K029 were treated with S6 siRNA (10nM) for 48 hours and assessed by immunoblotting (left). Cells were treated with non-target siRNA as controls. Immunoblot analysis of S6 levels at 48 hours (left). The blot is representative of three independent experiments. PD-L1 frequencies were analyzed by flow cytometry at 96 hours (right) demonstrating no significant changes in PD-L1 expression. PDL1 cell surface expression was assessed (y-axis) versus Annexin V staining (x-axis) for cell viability. The flow profile is representative of three independent experiments. (* represents p < 0.05)

**Supplemental Figure 3.** Immunoblot analysis of ERK1/2 status demonstrating decreases in p-ERK1/2 as a function of treatment with U0126. The blot is representative of three independent experiments.