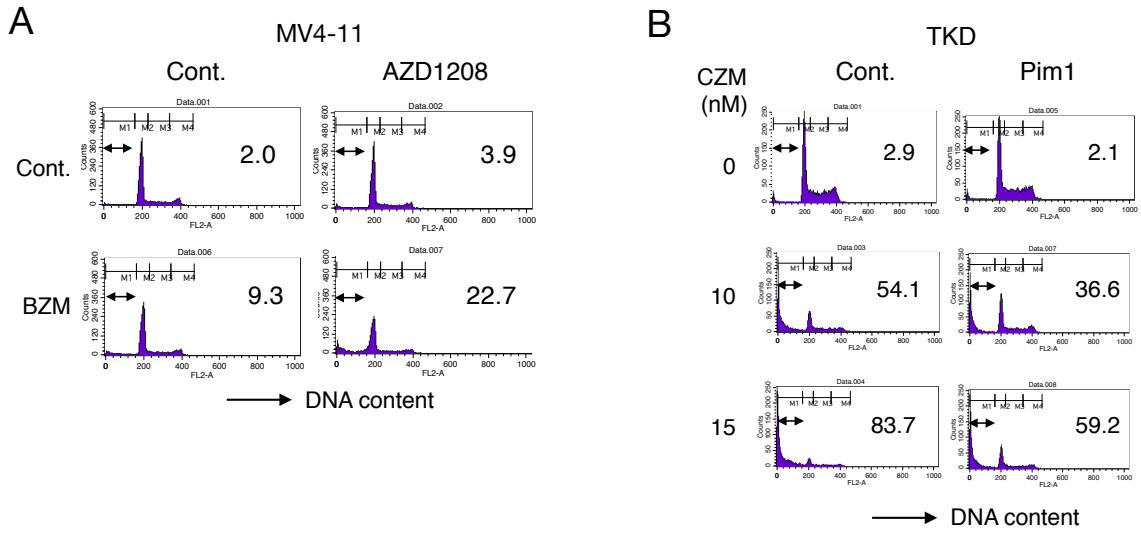

Figure S1. Pim kinases play a key role in acquisition of resistance to proteasome inhibitors in FLT3-ITD-expressing cells. (A) MV4-11 cells were treated for 48 h with or without 0.75 ng/ml bortezomib (BZM) and 3 μM AZD1208, as indicated, and analyzed for the cellular DNA content by flow cytometry. Percentages of apoptotic cells with sub-G1 DNA content are indicated. (B) 32D/ TKD cells transduced with Pim1 or vector control cells, as indicated, were treated with indicated concentrations of carfilzomib (CZM) for 48 h and analyzed.

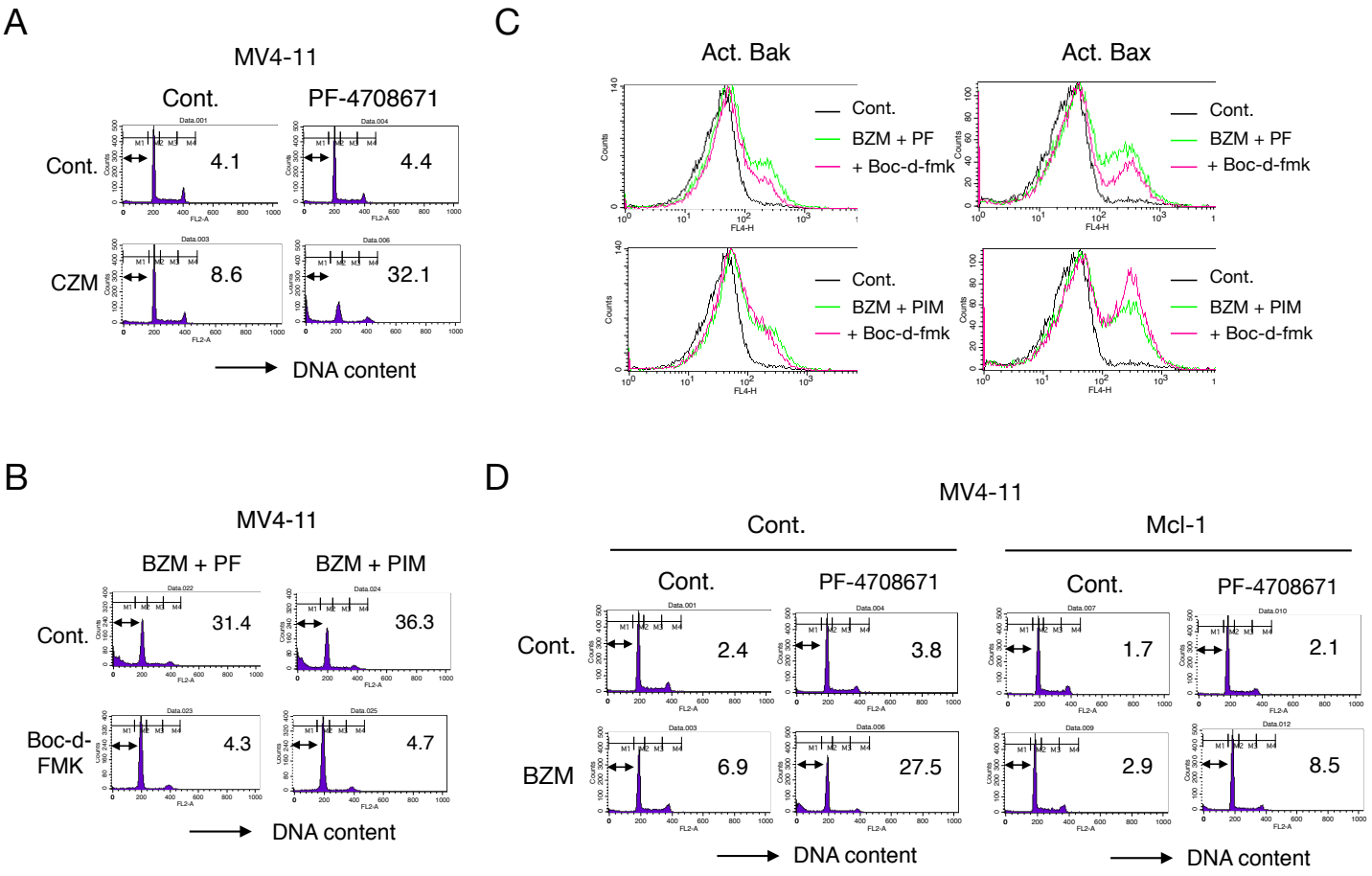

Figure S2. S6K also plays an essential role in acquisition of the bortezomib resistance by FLT3-ITD-expressing leukemic cells. (A) MV4-11 cells were treated for 48 h with or without 4 nM carfilzomib (CZM) and 5 μM PF-4708671, as indicated, and analyzed for the cellular DNA content by flow cytometry. Percentages of apoptotic cells with sub-G1 DNA content are indicated. (B) MV4-11 cells were treated for 48 h with 0.75 ng/ml bortezomib (BZM), 5 μM PF-4708671 (PF), and 1 μM PIM447 (PIM) in the presence or absence of 100 μM Boc-d-fmk, as indicated, and analyzed. (C) MV4-11 cells were treated as described for B and analyzed for activation of Bak and Bax by flow cytometry. (D) MV4-11 cells transduced with Mcl-1 or vector control cells were treated with or without 0.75 ng/ml bortezomib (BZM) and 5 μM PF-4708671, as indicated, for 48 h and analyzed.