Figure: S1

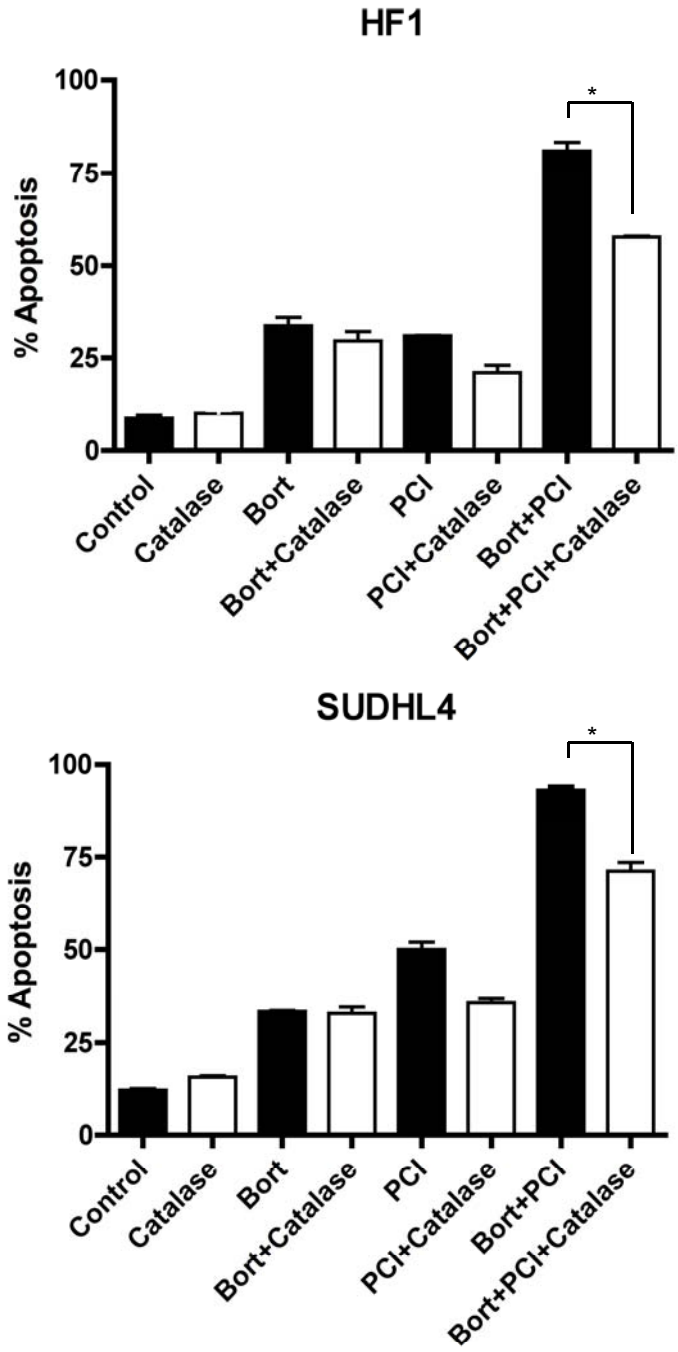


Fig.S1: Catalase partially inhibited bortezomib and PCI-24781-induced apoptosis in HF1 and SUDHL4 cells. Cells were treated with 4000 units of catalase for 2 hours following incubation with the 5nM bortezomib or 0.5μM PCI-24781 or combination bortezomib/PCI for 48 hours. The percentage of apoptotic cells was determined by annexinV/PI staining followed by flow cytometric analysis. *P<0.05 for bort/PCI plus catalase as compared to bort/PCI.

Figure: S2

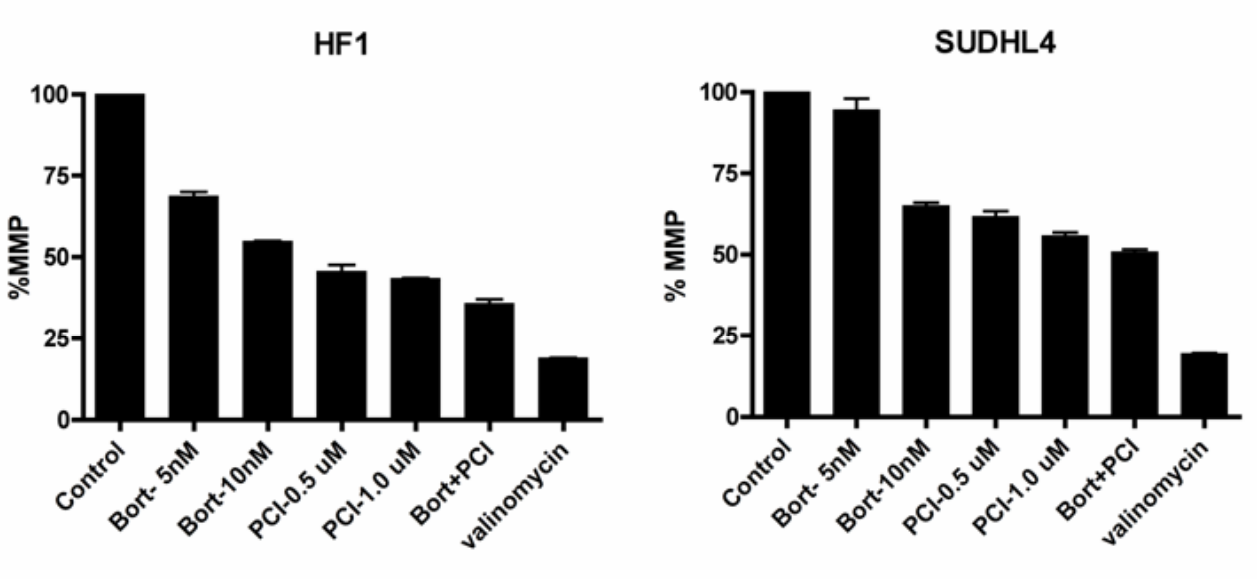


Fig. S2: HF1 and SUDHL4 cells were treated with indicated concentrations of bortezomib and PCI-24781or combination (5nM bortezomib and 0.5μM PCI) for 24 hours. The percentage of cells exhibiting loss of mitochondrial membrane potential ($\Delta\Psi m$) was determined by JC-1 staining followed by flow cytometric analysis. $P< 0.01$ for PCI/bortezomib combinations as compared to control or 5nM bortezomib in HF1 as well as in SUDHL4 cells

Figure: S3

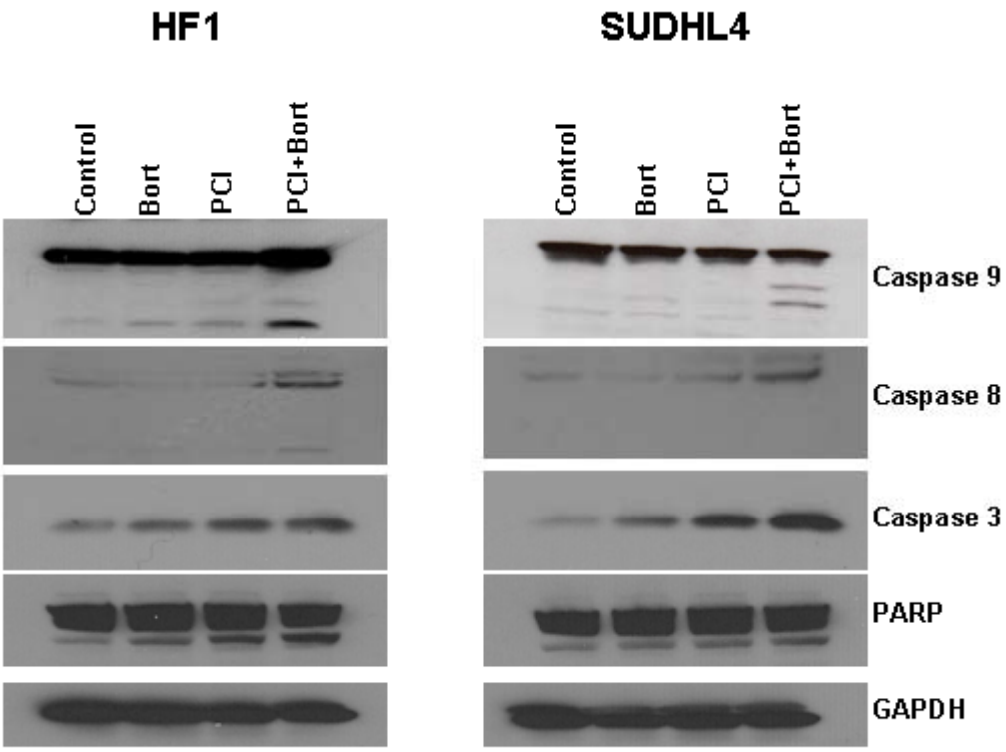


Fig.S3: Western blot analysis of caspases 3, 9, 8, and PARP activation in HF1 and SUDHL4 cells. Cells were treated with the 5nM bortezomib or 0.5μM PCI-24781 or combination bortezomib/PCI for 24 hours. GAPDH was used as internal control for all Western blots. PCI, PCI-24781; Bort, bortezomib

Figure: S4

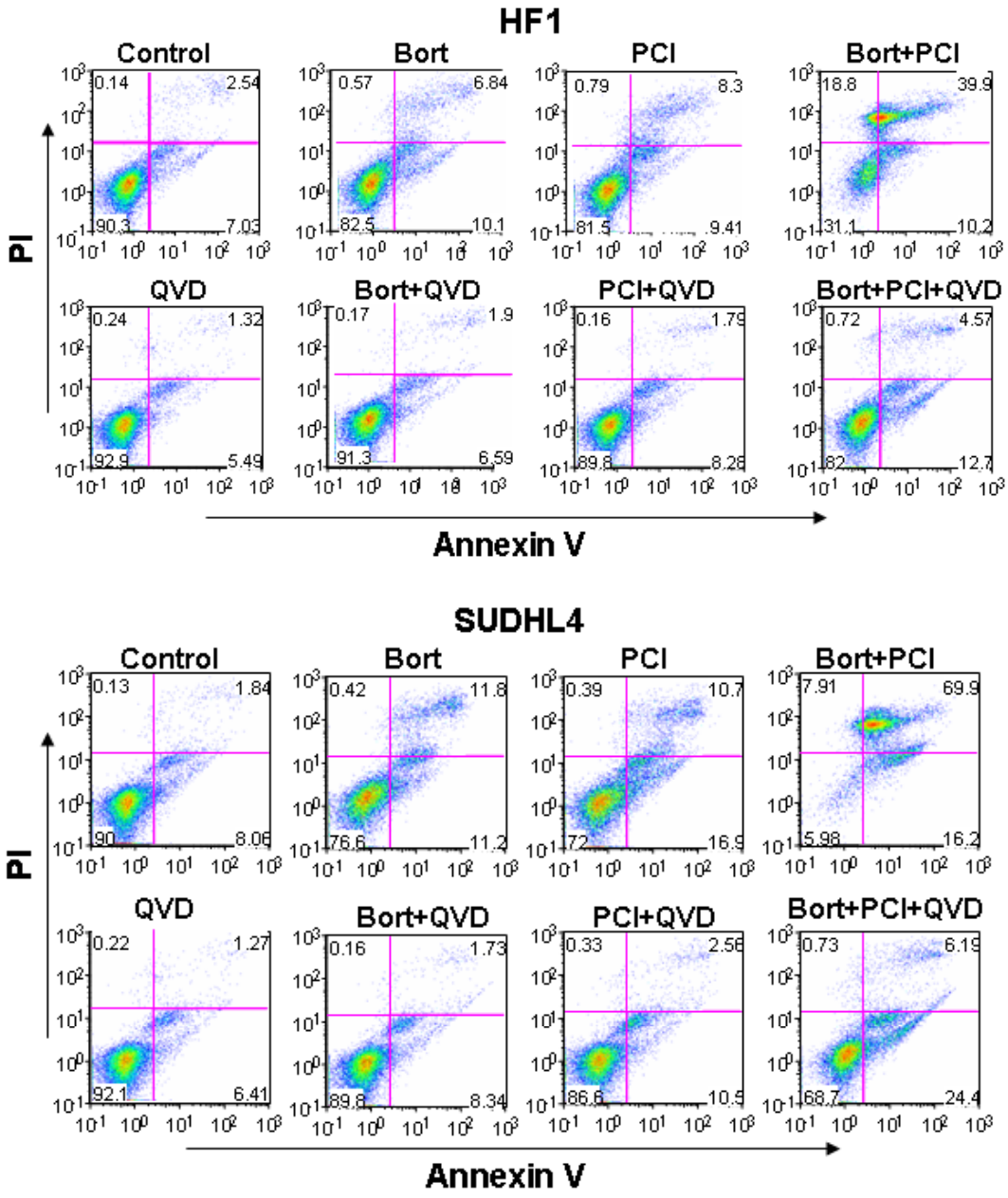


Fig. S4: The pan-caspase inhibitor, Q-VD-OPh, inhibited bortezomib/PCI-24781-induced apoptosis in HF1 andSUDHL4 cells. Cells were treated with either 5nM bortezomib or 0.5μM PCI or combined bortezomib/PCI-24781 (5nM bortezomib and 0.5μM PCI-2478i) for 48 hours alone (control) or with 4-hour pretreatment with 50μM Q-VD-OPh. Apoptotic cells were detected by annexinV/propidium iodide staining and measured by flow cytometry. $P<0.05$

Figure: S5

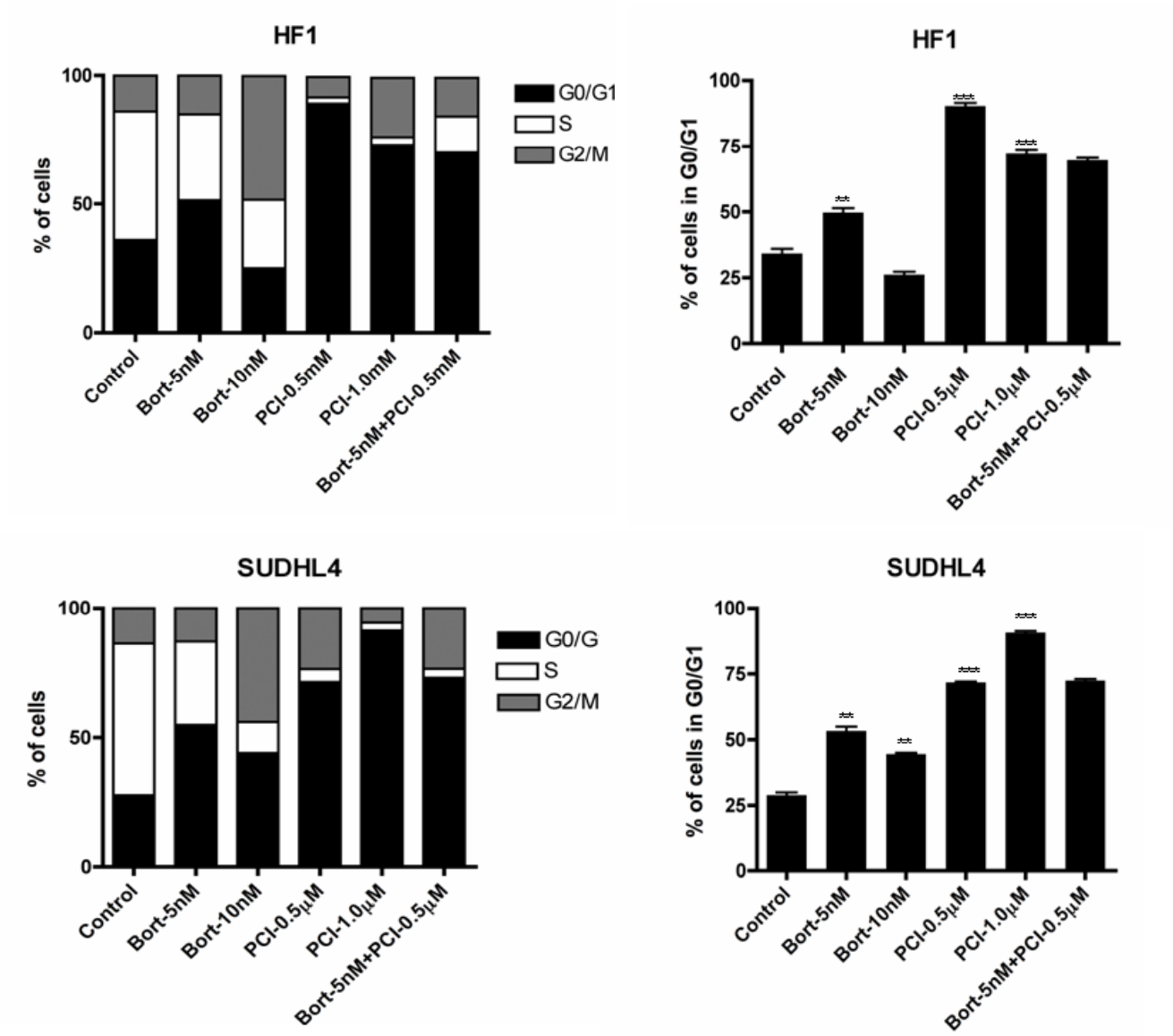


Fig.S5: HF1 and SUDHL4 cells were treated with the indicated concentrations of bortezomib or PCI-24781 and the combination for 24 hours and then stained with propidium iodide and their cell cycle profiles were examined by flow cytometry. **P<0.01, and ***P<0.001. P values for single-agents reflect bortezomib or PCI-24781 vs control; Combination bortezomib/PCI-24781 not significant vs matching single-agent concentrations.

Figure: S6

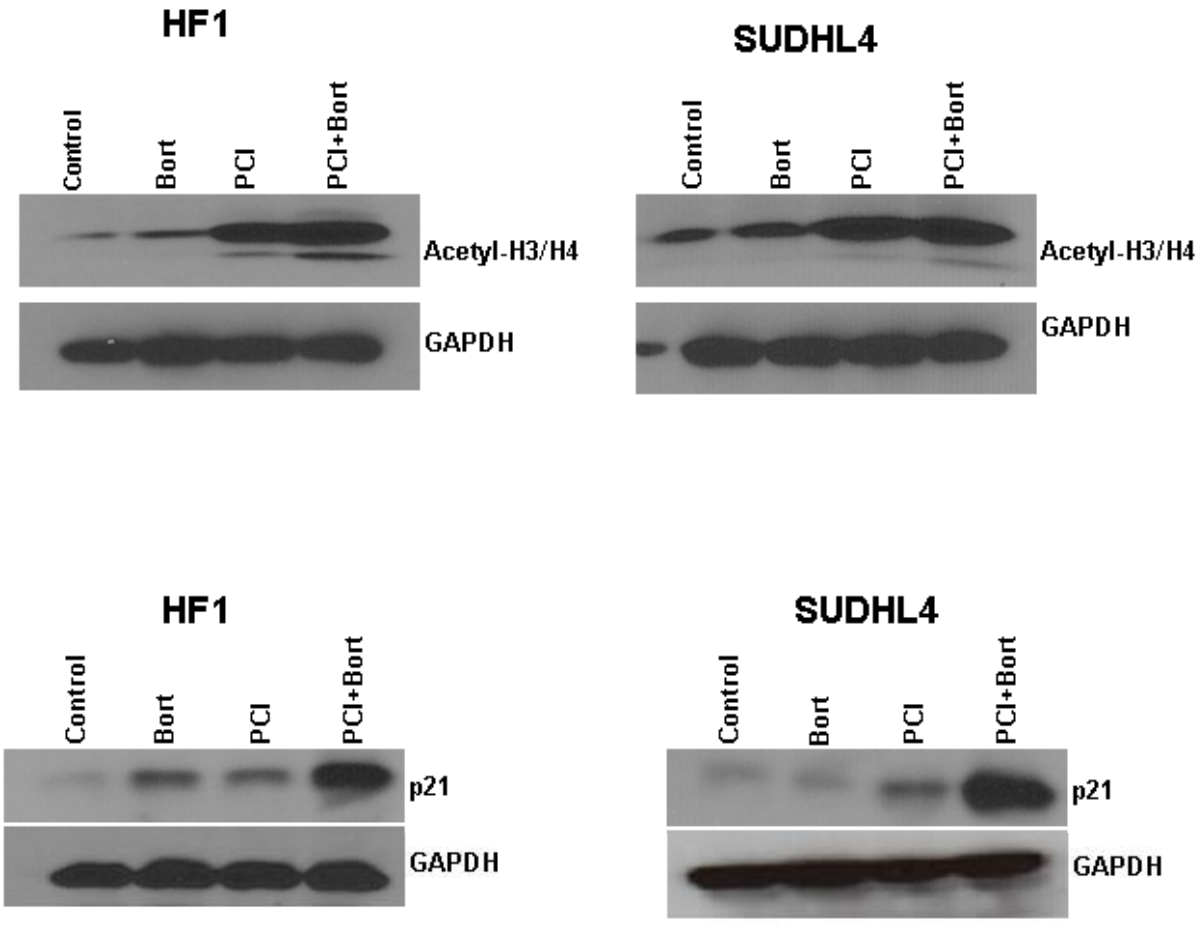
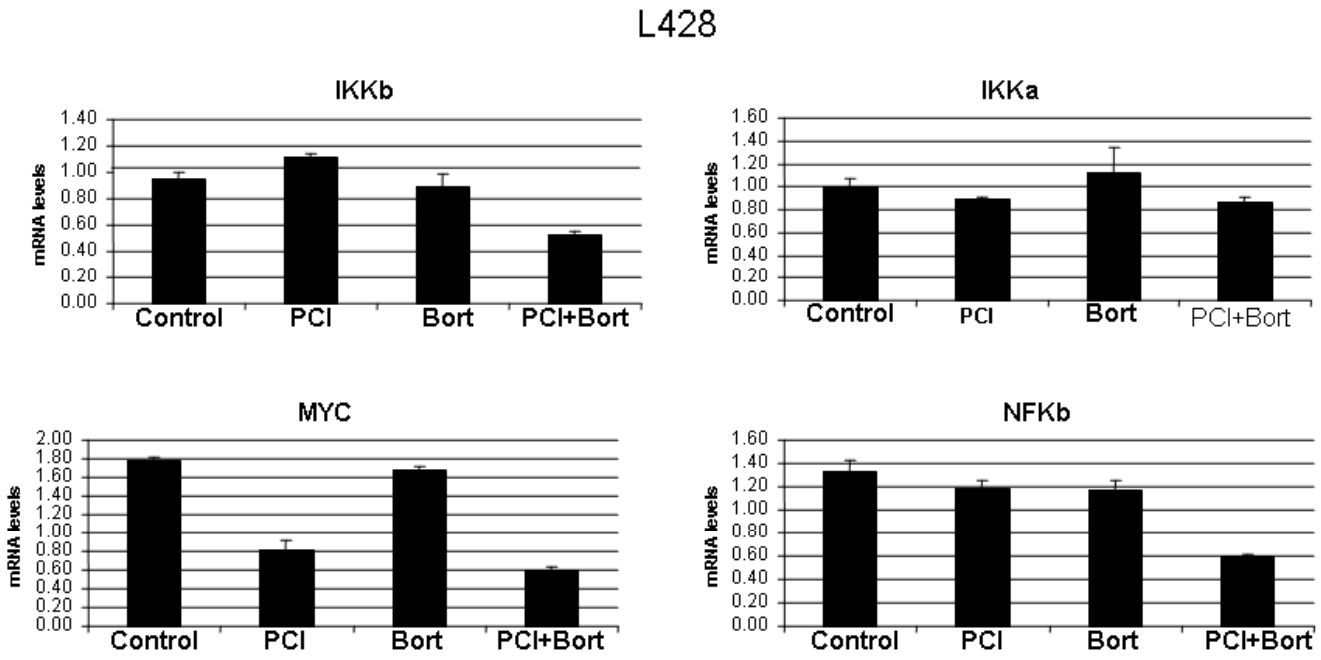


Fig.S6: Western blot showing histone hyperacetylation and P21 upregualtion in HF1 and SUDHL4 cells. Cells were treated with 5nM of bortezomib and 0.5μM of PCI-24781 or the combination bort/PCI for 16 hours. The level of acetyl histone H3/H4 and p21 protein was measured using antibody as described in the Methods. GAPDH was used as internal control for all Western blots. PCI, PCI-24781; Bort, bortezomib.

Figure: S7



P<0.01 for the combination PCI/Bort as compared to control as well as single agent bortezomib and PCI for NFkB and IKKb and MYC. P<0.05 for combination as compared to control and bortezomib for IKKa.

Fig.S7: NF-κB1 (p105), c-Myc, IKKα, and IKKβ mRNAs were quantified by RT-PCR. L428 cells were treated with 10 nM bortezomib or 1μM PCI-24781 or the combination for 24 hours.

Figure: S8

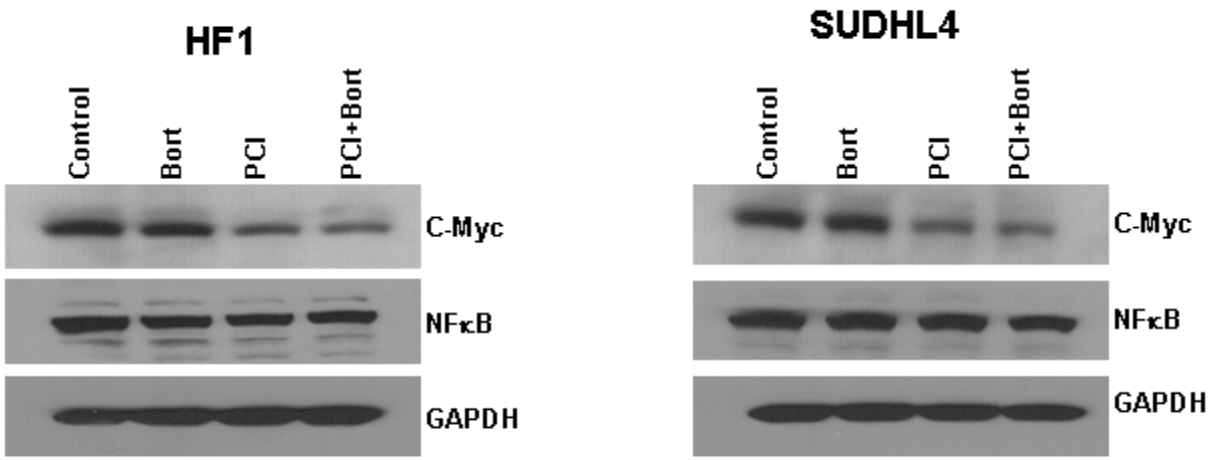


Fig.S8: Western blot of c-Myc and NF-κB p65 (RelA) protein expression. HF1 and SUDHL4 cells were treated with 5nM of bortezomib and 0.5μM of PCI-24781 or the combination bort/PCI for 16 hours. The level of c-Myc and NF-κB protein was measured using antibody as described in the Methods. GAPDH was used as internal control for all Western blots. PCI, PCI-24781; Bort, bortezomib.