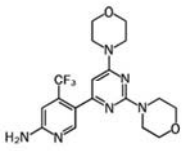
Supplementary Figure 1. Chemical structure of NVP-BKM120, NVP-BEZ235, RAD001 and bortezomib.

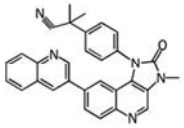
Supplementary Figure 2. p27 expression levels in different cell lines and effect of NVP-BEZ235 treatment on cells having a different amount of p27. (A) Proteins were extracted from exponentially growing embryonic fibroblasts of wild-type (REF7) or mutant (REF10) rats and from mouse embryonic fibroblasts of p27+/+ (MEF12), p27+/- (MEF21) and p27-/- (MEF19) mice. (B) Embryonic fibroblast from wild-type (REF7) or mutant (REF10) rats were incubated with different concentrations (0.1nM to 10nM) of NVP-BEZ235 for 24h. We performed western blotting to assess the expression level of total Akt, p-Akt (S473), total S6, p-S6(S240/244) and p27. Alpha-tubulin was used to check for equal loading. (C) GH3 cells were transfected with GFP-wtp27 and GFP-mutp27 (p27fs177) constructs. Twenty-four hours later, transfected GH3 cells were incubated with different concentrations (0.1nM to 100nM) of NVP-BEZ235 for additional 24 hours, or left untreated (CT). Proteins were then extracted and western blotting was performed to monitor the expression level of total Akt, p-Akt (S473), total S6, p-S6(S240/244), and p27. Alpha-tubulin was used to check for equal loading. *, unspecific band.

Supplementary figure 3. Stabilization of mutant p27fs177 following bortezomib treatment of primary rat fibroblasts or of rat pituitary adenoma cells. Exponentially growing REF7 and REF10 cells were treated with the proteasome inhibitor bortezomib (1nM and 10nM) or vehicle (CT) for 24 hours. Primary pituitary tumor cells were incubated with 10nM bortezomib for same incubation time or treated with vehicle (CT). Western blotting was performed for p27. Alpha-tubulin was used to check for equal loading. *, unspecific band.

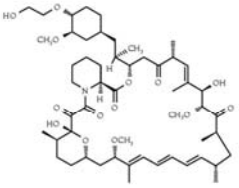
Supplementary Figure 1



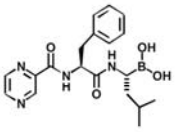
NVP-BKM120



NVP-BEZ235

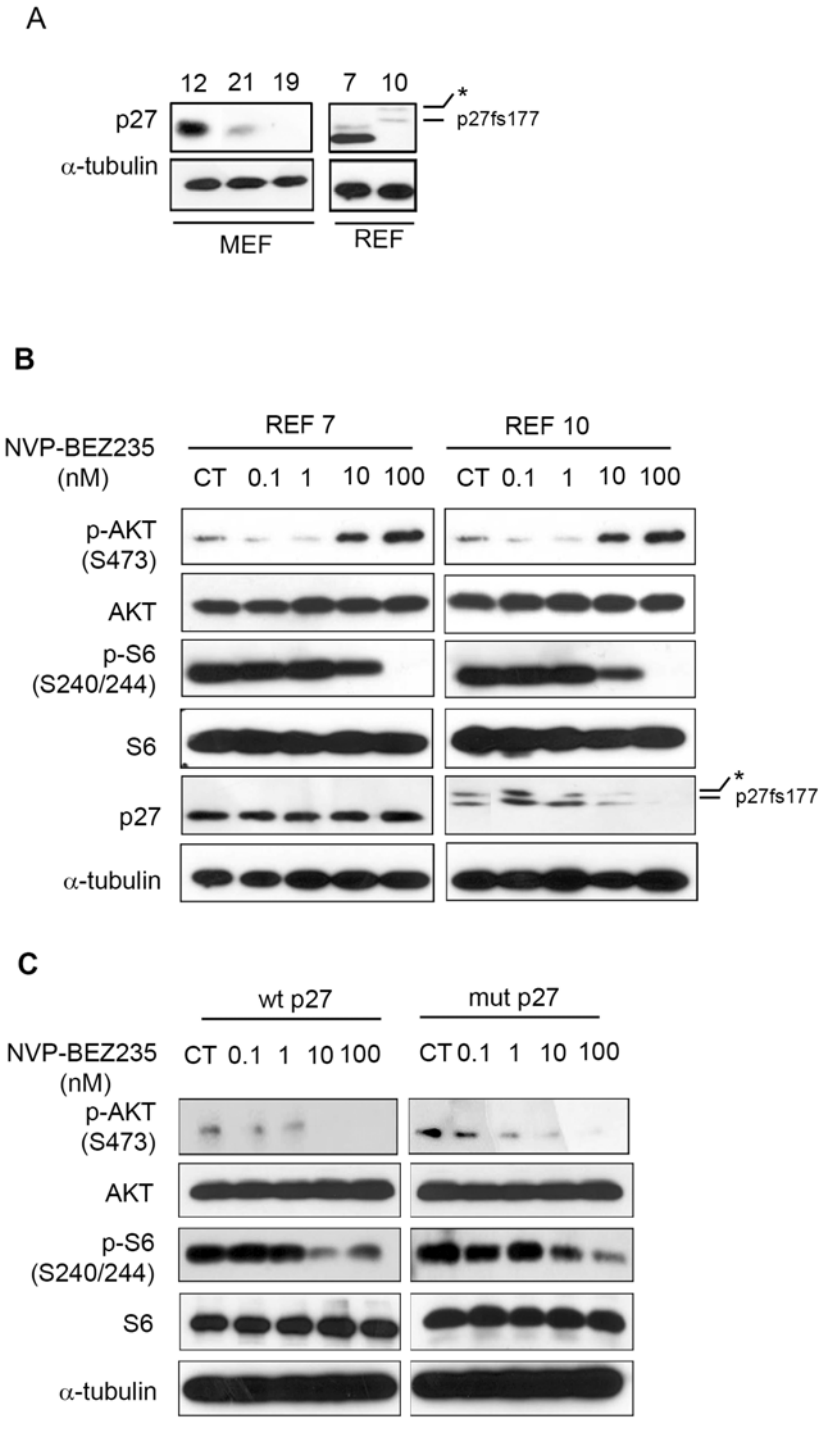


RAD001



Bortezomib

Supplementary Figure 2



Supplementary Figure 3