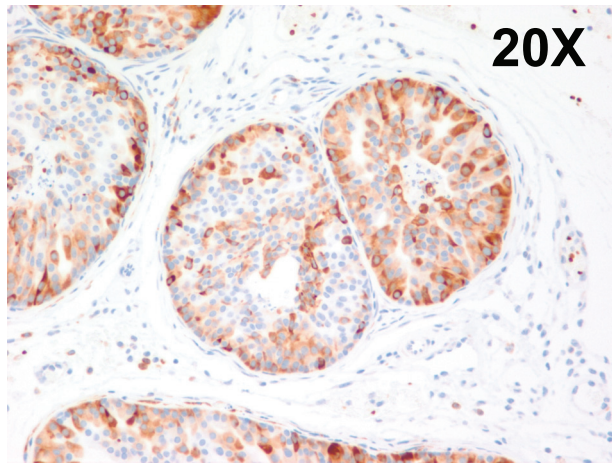
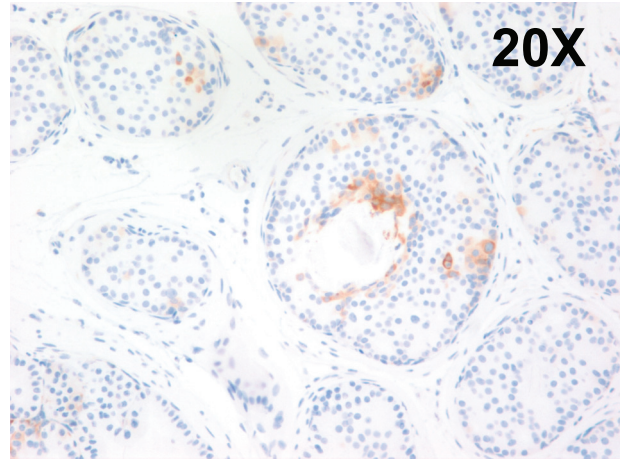


pS6



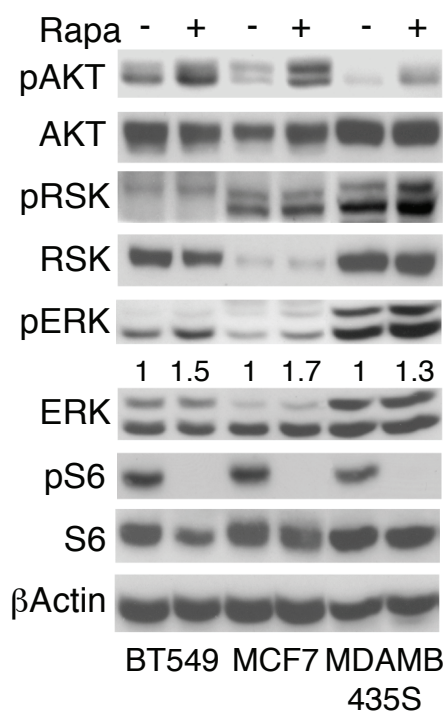
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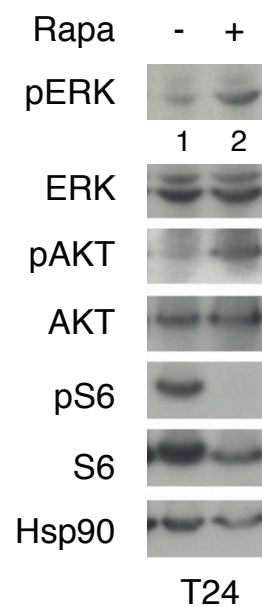
RAD001

Supplementary Figure 1. RAD001 efficiently inhibits mTORC1 in *Pten*-null prostate tumors. Phosphorylated RpS6 immunostaining in *Pten*-null mouse prostates, treated with vehicle or RAD001 for 4 weeks. A representative area is shown. n=3 mice per group.

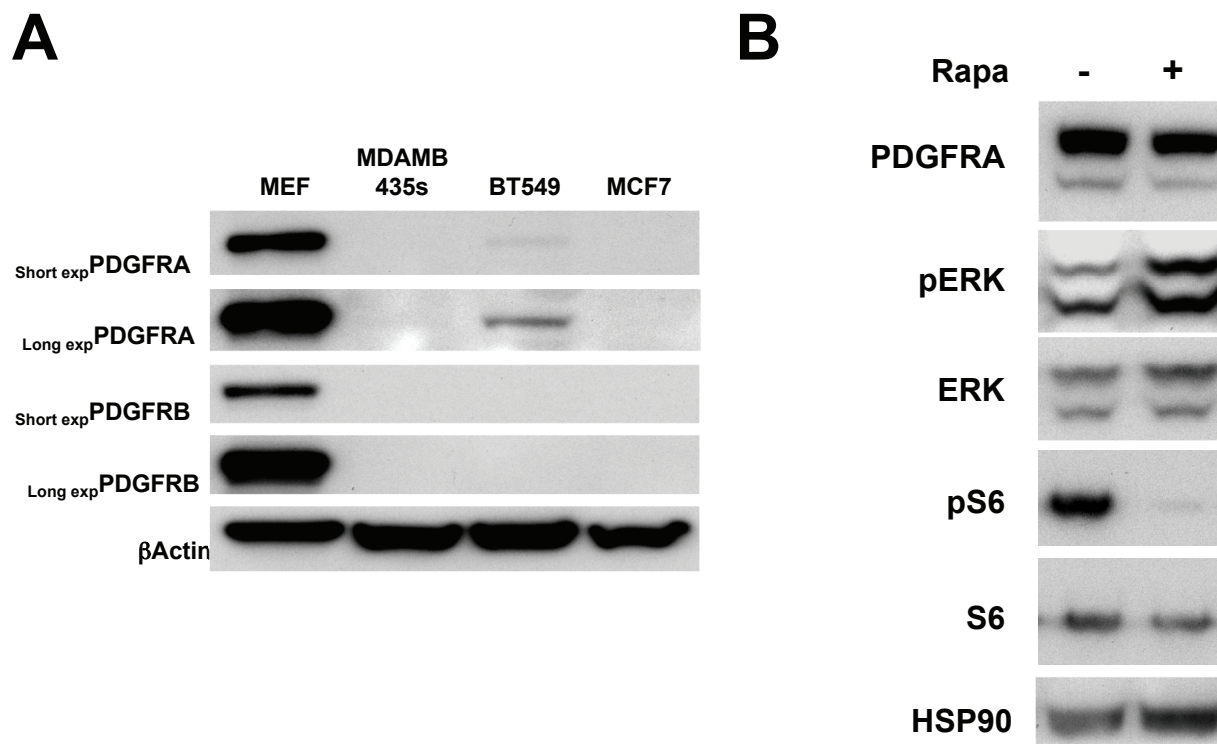
A



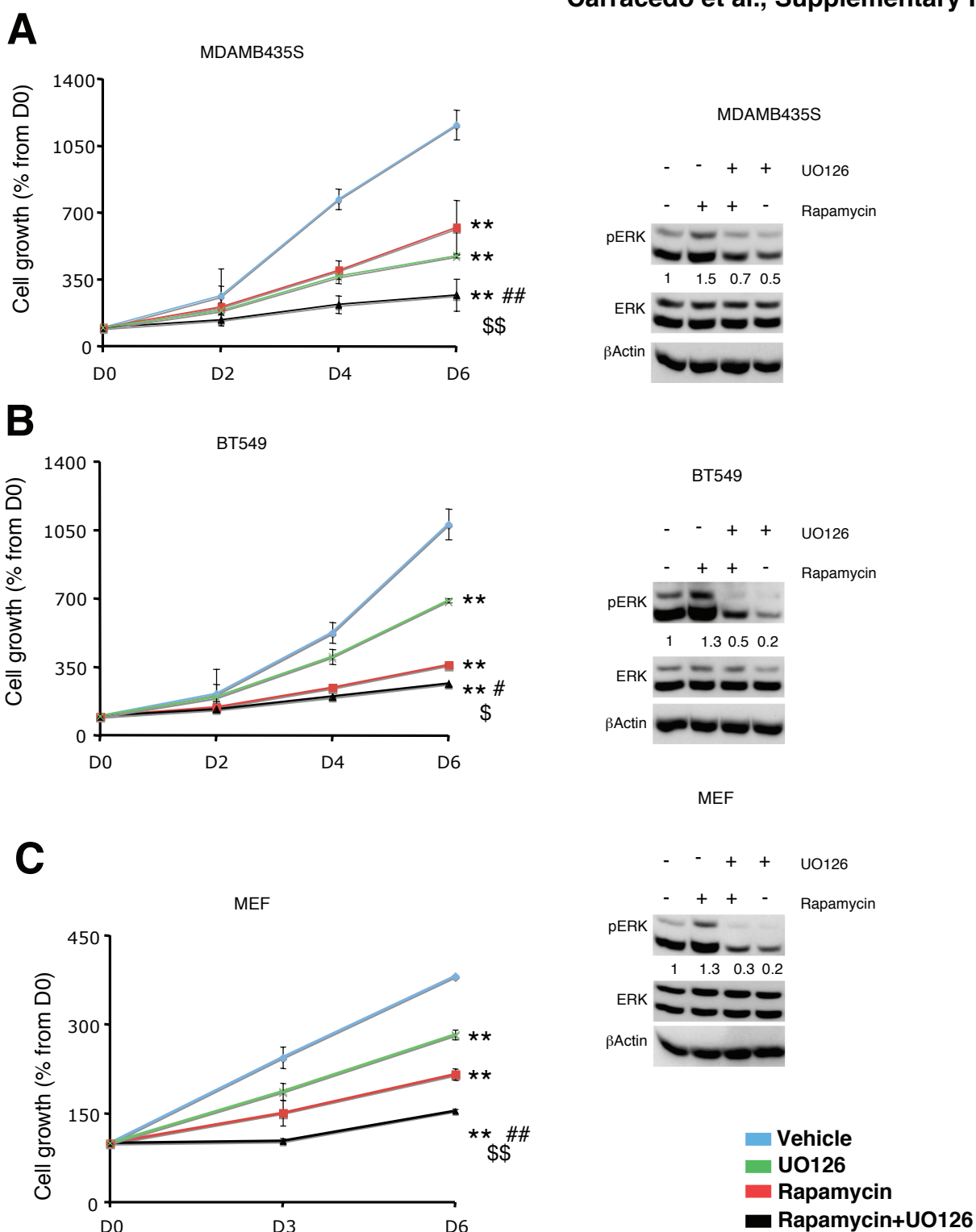
B



Supplementary Figure 2. Rapamycin activates MAPK in cancer cell lines. (A-B) Effect of rapamycin treatment (20 nM, 24 h) on ERK, AKT, RSK and RpS6 phosphorylation in breast (A) and bladder cancer cells (B), n=3. Numbers indicate the ratio of ERK phosphorylation related to total ERK levels.

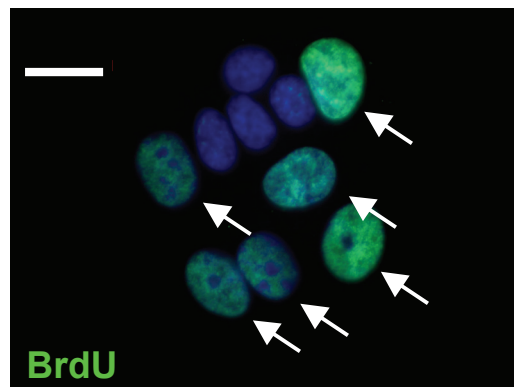
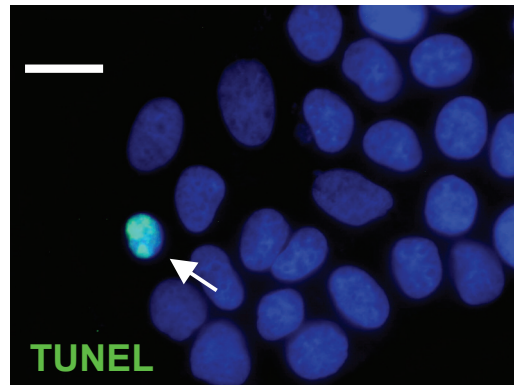
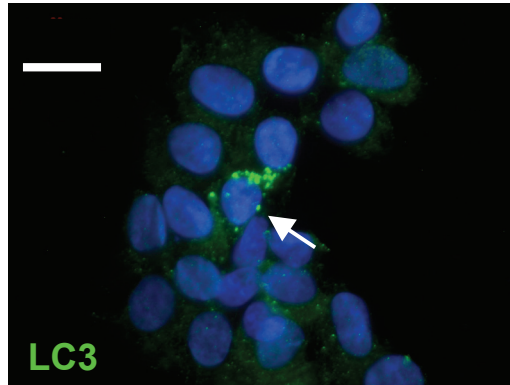


Supplementary Figure 3. Rapamycin does not affect PDGFRs expression in breast cancer cells. **(A)** Expression of PDGFRA and B in breast cancer cells, using MEF as a positive control, a representative western blot is shown. **(B)** Effect of rapamycin (20 nM, 24 h) on PDGFRA protein levels in BT549 cells. n=2.

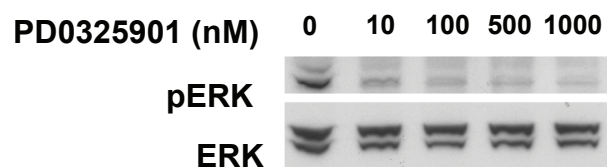
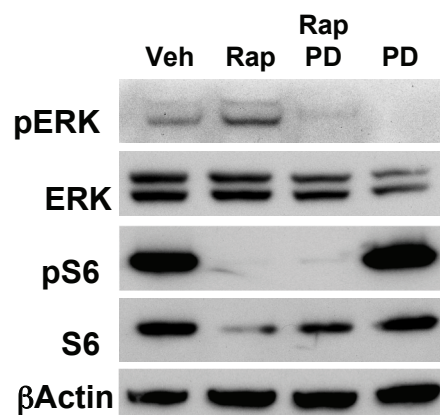
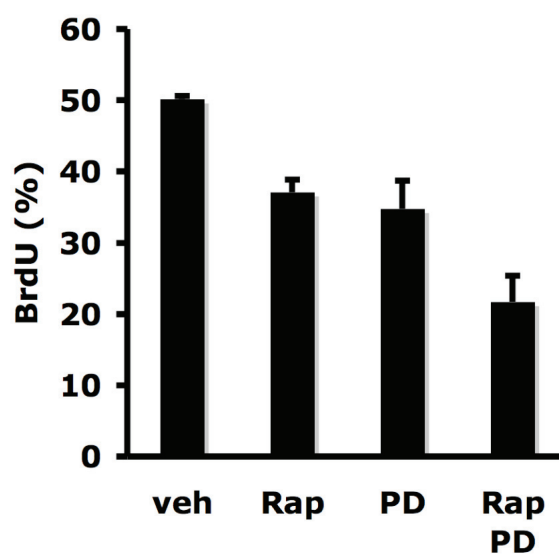


Supplementary Figure 4. MEK1/2 pharmacological inhibition enhances the growth-inhibitory activity of rapamycin. Effect of rapamycin (20 nM), UO126 (10 μ M) or the combination of both on cell growth (left panels) and ERK phosphorylation (right panels), $n=4$, representative western blot analysis is shown. Numbers indicate the ratio of phosphorylated protein compared to total protein. **, $p < 0.01$ from vehicle-treated cells; #, $p < 0.05$ and ##, $p > 0.01$ from rapamycin-treated cells; \$, $p < 0.05$ and \$\$, $p < 0.01$ from UO126-treated cells.

20 μ m



Supplementary Figure 5. Immunofluorescence staining of LC3, BrdU and TUNEL in MCF7 cells. Arrows indicate positive cells, a representative field for the staining is shown.

A**B****C**

Supplementary Figure 6. MEK1/2 pharmacological inhibition by PD0325901 (PD) enhances the growth-inhibitory activity of rapamycin (Rap). (A) Dose-dependent inhibition of ERK by PD0325901 in MCF7 cells, n=2. (B-C) Effect of PD0325901 (100nM) alone or in combination with rapamycin (20nM) on S6 and ERK phosphorylation (B, 24h) and BrdU incorporation (C, 24h), n=2.