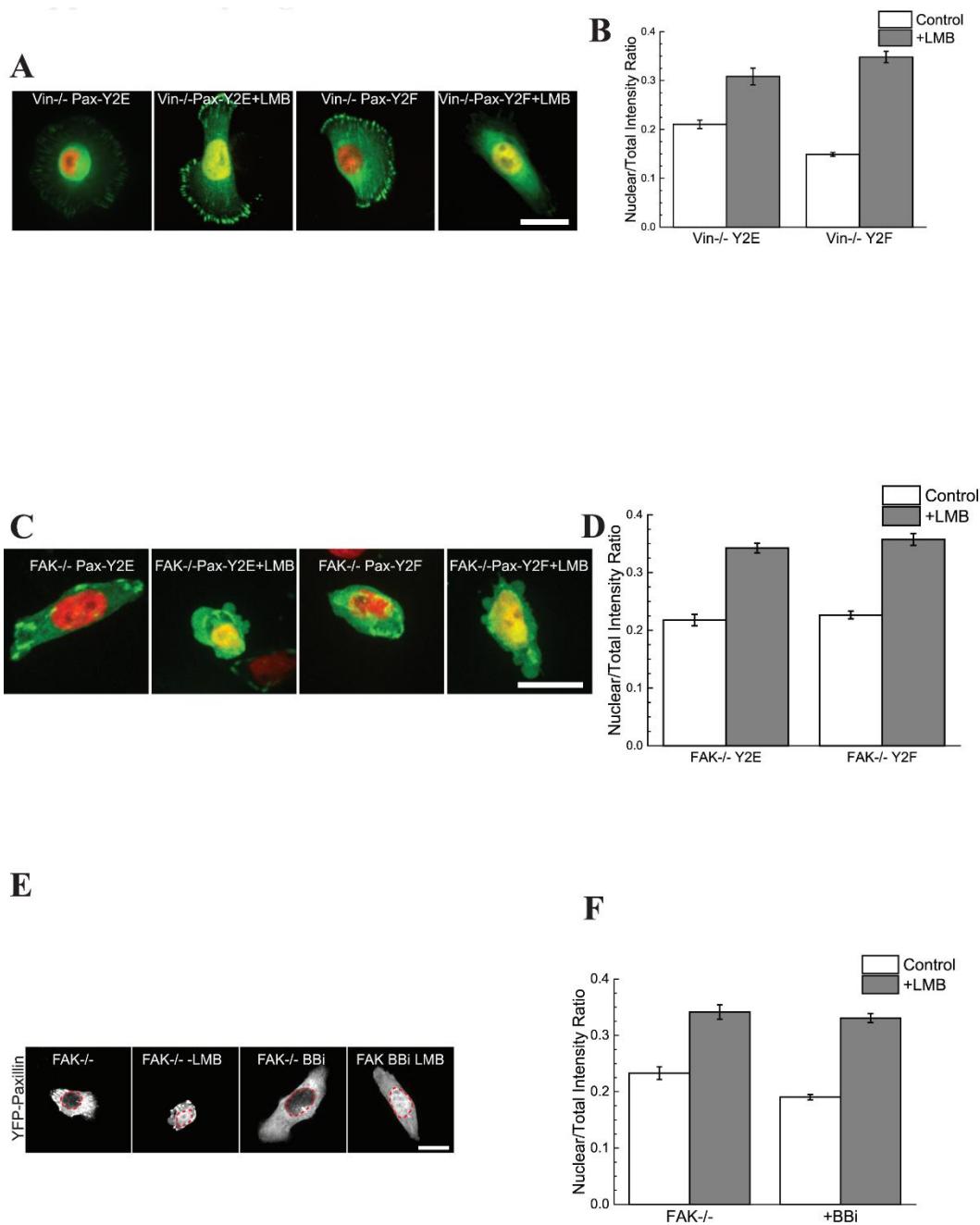
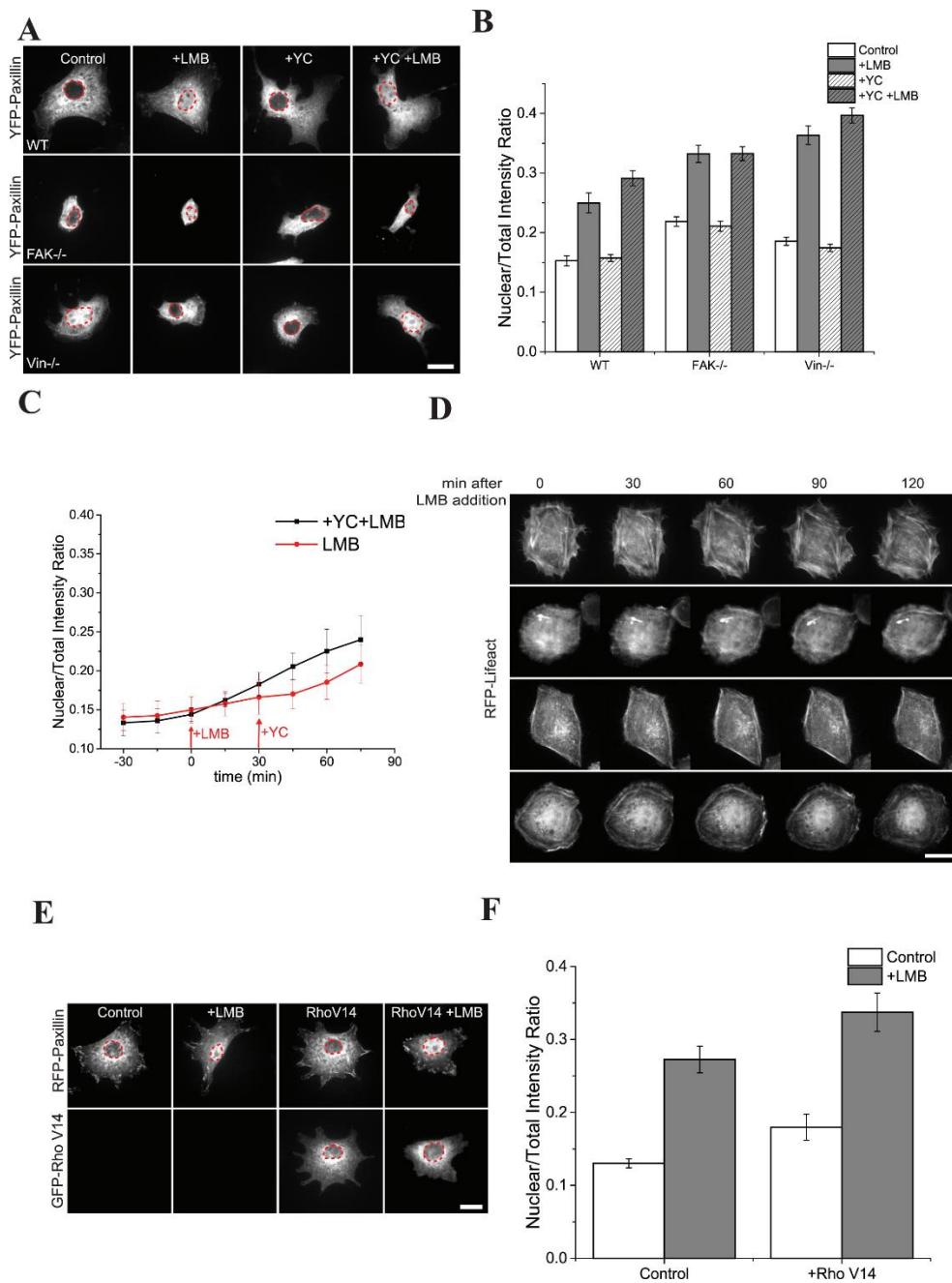


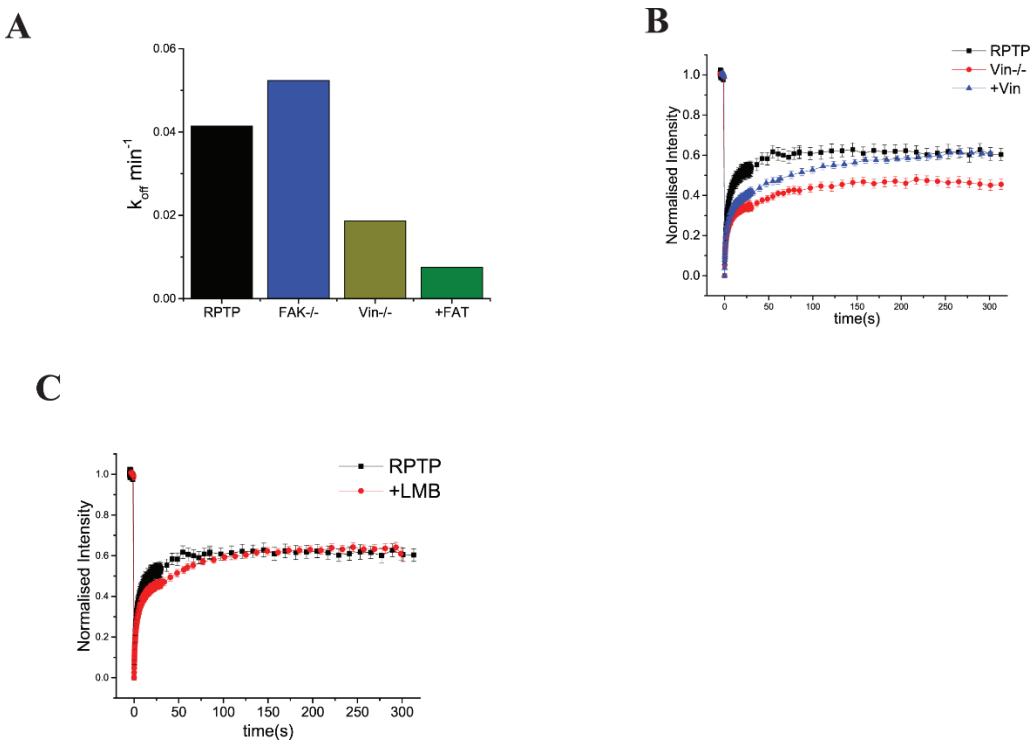
Supp. Fig. 1. Cell Geometry controls FA turnover (A) Quantification of the nuclear paxillin in cells treated with Crm-1 Inhibitor-III. (B) FAK-/- and Vin-/ cells rescued with indicated constructs and treated with LMB. Nucleus is outlined in red. Scale bar =20 μ m (C,D) Western Blot of paxillin in the nuclear fraction in Control and LMB treated cells. Quantification is based on normalizing to Lamin control. (E,F) Images and quantification of nuclear accumulation of zyxin with and without LMB. Scale bar =20 μ m. Error bars = s.e.m.; n > 50 **P <=.01. (G) Representative examples of cells on circular and triangular patterns. Yellow lines represent axes used to generate kymographs of FAs. Kymographs on the right show examples of triangular and circular FA followed through time on the vertical axis. (H) Table quantifying the average FA turnover rate on circular and triangular patterns.



Supp. Fig. 2. (A,B,C,D) Images and NTIR of YFP-Y2E and Y2F mutants of paxillin in Vin^{-/-} and FAK^{-/-} cells. Green is paxillin and red is the nucleus. (E,F) Images and quantification of nuclear localization of YFP-paxillin in FAK^{-/-} cells with and without BBi treatment. Paxillin is in grey and nucleus is outlined by red in LMB treated cells. Scale bars =20 μ m



Supp. Fig. 3 (A,B) Images and NTIR of RPTP α +/+(WT), FAK-/-, and Vinculin-/- transfected with YFP-paxillin and treated with LMB+Y27632 (YC) for 1h. (C) NTIR quantification in live RPTP α +/+ transfected with YFP-paxillin and treated with LMB+Y27632. (D) RPTP α +/+ transfected with RFP-Lifeact. Images of live cells before (0min) and after treatment with LMB. (E,F) Images and NTIR of RPTP α +/(Control) cells transfected with RFP-paxillin and GFP-RhoV14 with and without LMB treatment. Error bars = s.e.m.; n > 50 for each condition; scale bars = 20 μ m



Supp. Fig. 4 (A) k_{off} as calculated from fitted curves from figure 4B for RPTP α $^{+/+}$, FAK $^{-/-}$, Vinculin $^{-/-}$ and RPTP α $^{+/+}$ transfected with FAT (+FAT). (B) FRAP curves for RPTP α $^{+/+}$, Vinculin $^{-/-}$ and Vinculin $^{-/-}$ rescued cells (C) FRAP curves for RPTP α $^{+/+}$ with and without LMB treatment.