

Supporting Figure 1. (**A**) mTORC1 activity is blocked by PRAS40 in response to high serum (**B**) Individual cell surface area (CSA) measurements from control or PRAS40 infected NRCMs and treated with 10%Serum (24h) (n=4 independent experiments, ***p<0.001 vs Control, ##p<0.01 vs Control 10%. (**C**) mTORC1 activity is blocked by PRAS40 in response to high Fatty acid concentrations (0.5ml/l) (**D**) Individual cell surface area (CSA) measurements from control or PRAS40 infected NRCMs and treated with Fatty Acids (24h) (n=3 independent experiments, *p<0.05 vs Control, ##p<0.01 vs Control FA. (**E**) Scheme of the AAV9PRAS40 under MLC2 promoter to overexpress PRAS40 in myocytes. Confocal microscopy of paraffin-embedded from PRAS40 mouse hearts stained for FLAG-tag (red), Actin (green) and nuclei (blue), scale bar 150µm. (**F**) Immunoblots showing mTORC1 and PRAS40 signaling in db/db and HFD mice. Barplots depicting quantitation of PRAS40 expression and p246/PRAS40 ratio . *p<0.05 versus control.