

Supplementary Figure 7: Spop^{+/-} mice exhibit increased AR and c-MYC protein levels compared to Spop wild-type mice. Representative immunohistochemical staining for Ki67, AR, and c-MYC expression in the prostates of 8 week-old wild-type C57BL/6 and Spoptm1a (KOMP)Wtsi (Spop+/-) mice (n=4).

AR

c-MYC

Supplementary Figure 8: Biallelic ablation of Spop results in increased presence of TUNEL-positive cells. (A) Representative TUNEL staining of prostate tissue from 8-week-old *Spop*^{fl/fl};*PBCre(-)* and *Spop*^{fl/fl};*PBCre(+)* mice. **(B)** Quantification of TUNEL-positive nuclei in prostates of 8-week-old *Spop*^{fl/fl};*PBCre(-)* (n=7) and *Spop*^{fl/fl};*PBCre(+)* (n=8) mice. Mean with SD is shown.





Β



Supplementary Figure 9: Organoids generated from *Spop* **knockout mice are smaller in size than WT controls. (A)** Diameter of organoids generated from whole prostate of 8-week-old *Spop*^{fl/fl};*PBCre(-)* and *Spop*^{fl/fl};*PBCre(+)* mice. Data is shown from three independent experiments. **(B)** Representative TUNEL staining of organoids.

Supplementary Figure 10: Cre-recombinase IHC staining in Spop knockout prostate tissues. Shown here are representative Cre-IHC images of ventral prostate lobes isolated from $Spop^{fl/}$, $f^{f};PBCre(-)$ (n=7), $Spop^{fl/fl};PBCre(+)$ (n=8), and $Spop^{WT};PBCre(+)$ (n=2) mice at the indicated age. Dorsolateral prostate lobes exhibited the same IHC pattern. (Cell signaling, Rabbit mAb #15036, 1:100 dilution).



Immunohistochemical Analysis of Cre Recombinase