Signal Regulatory Protein α Protects Podocytes Through Promoting Autophagic Activity

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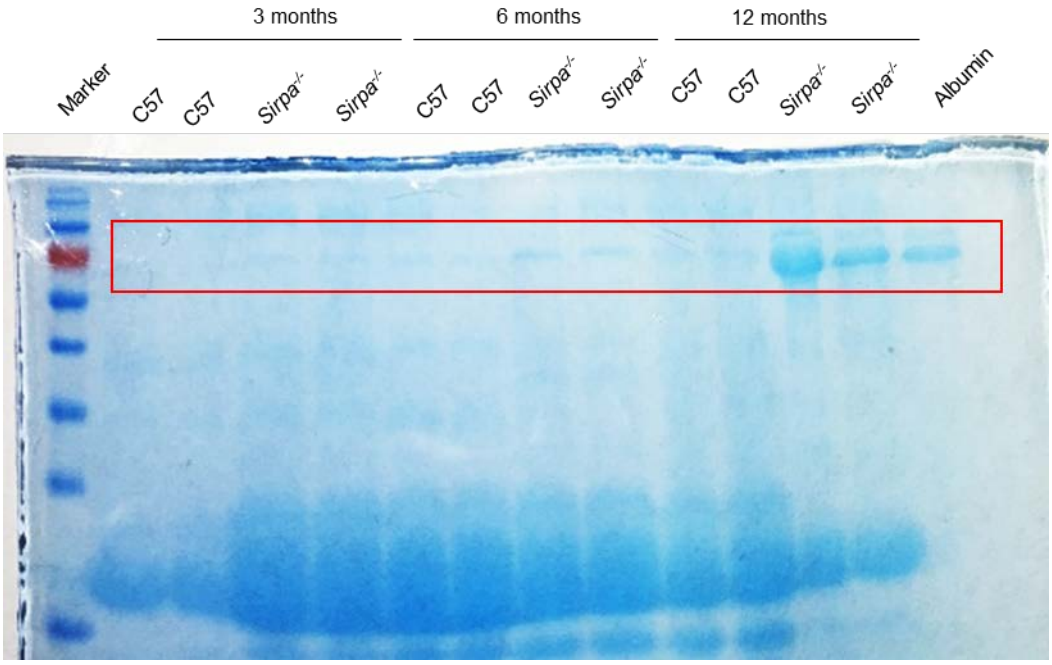
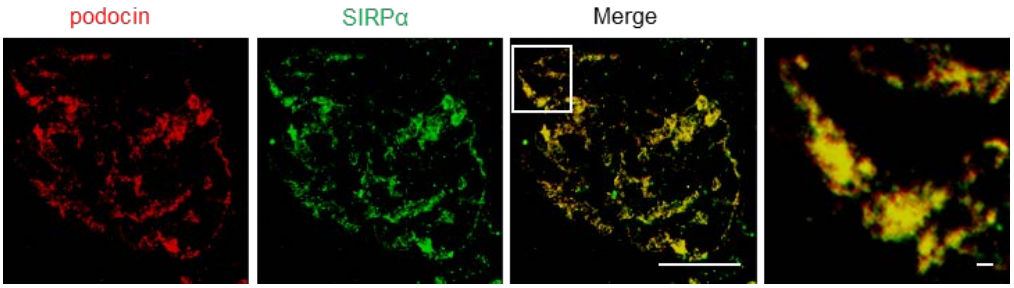
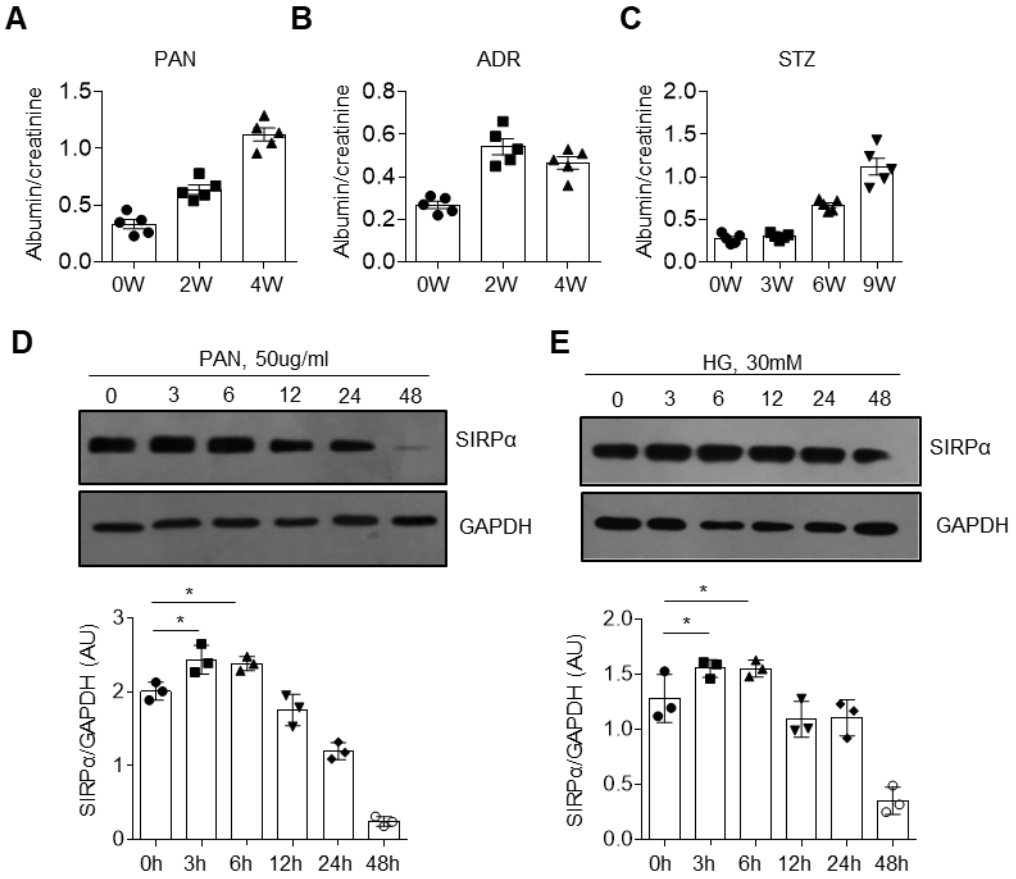


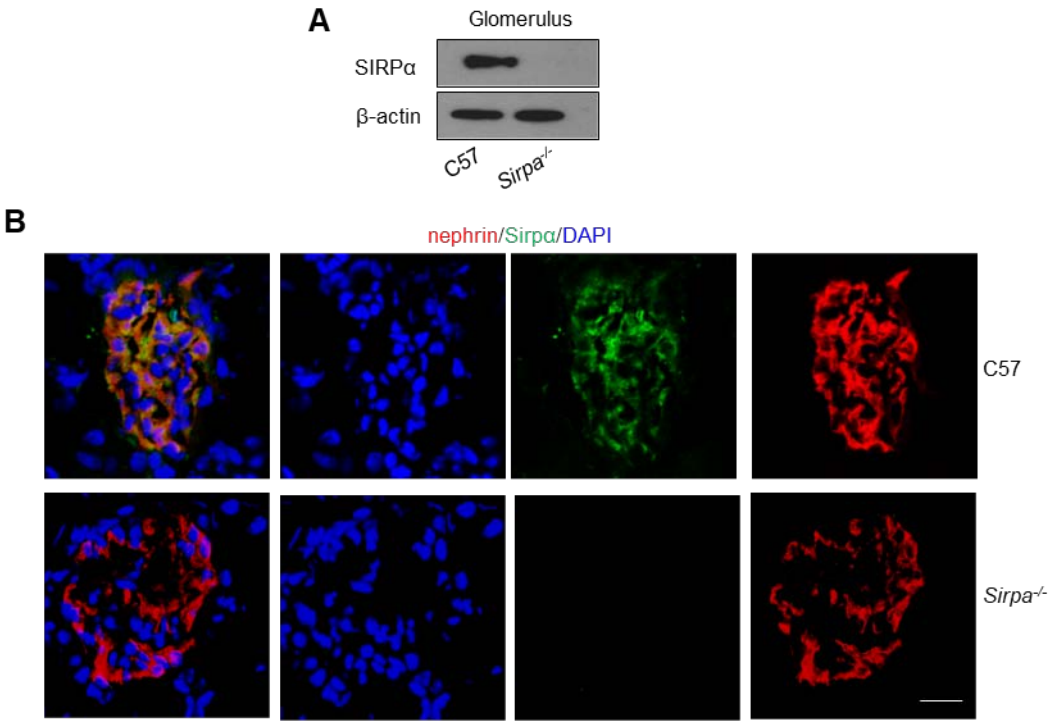
Supplementary Figure 1. Representative Coomassie staining results of urine samples from C57BL/6 and *Sirpa*$^{-/-}$ mice at 3, 6 and 12 months of age.



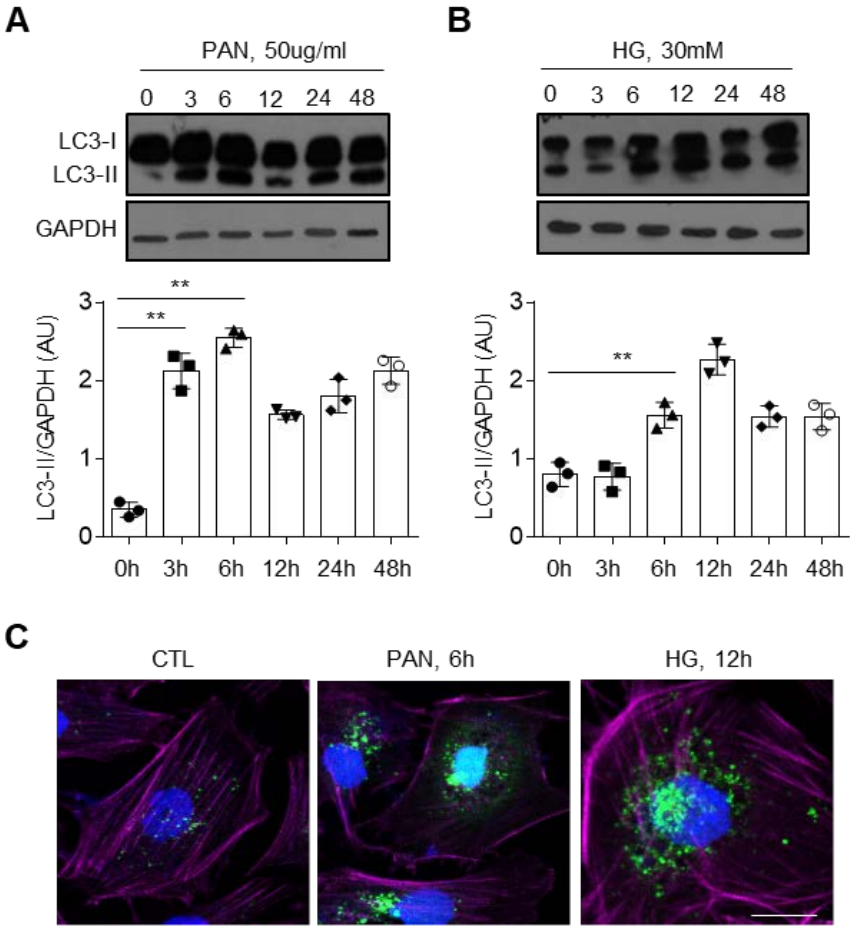
Supplementary Figure 2. SIRPα co-localizes with podocin in mouse glomerulus. Scale bars, 25μm.



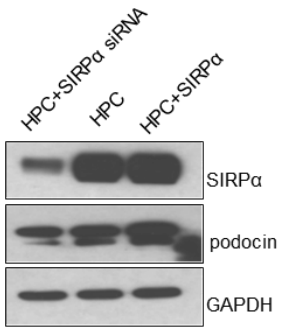
Supplementary Figure 3. Mouse models of renal injury and reduction of podocyte SIRPα following podocyte injury. **A-C**, Albumin-to-creatinine ratio (mg/mg) in C57BL/6 mice treated with ADR, PAN or STZ (5 mice/group). **D** and **E**, SIRPα level in podocyte cell line HPC with PAN, high glucose (HG) treatment over time. Immunoblots are representative of 3 independently performed experiments. Histograms are quantification of SIRPα level. All the data were presented as mean ± SEM, and P value was analyzed by ANOVA with Tukey-Kramer test.



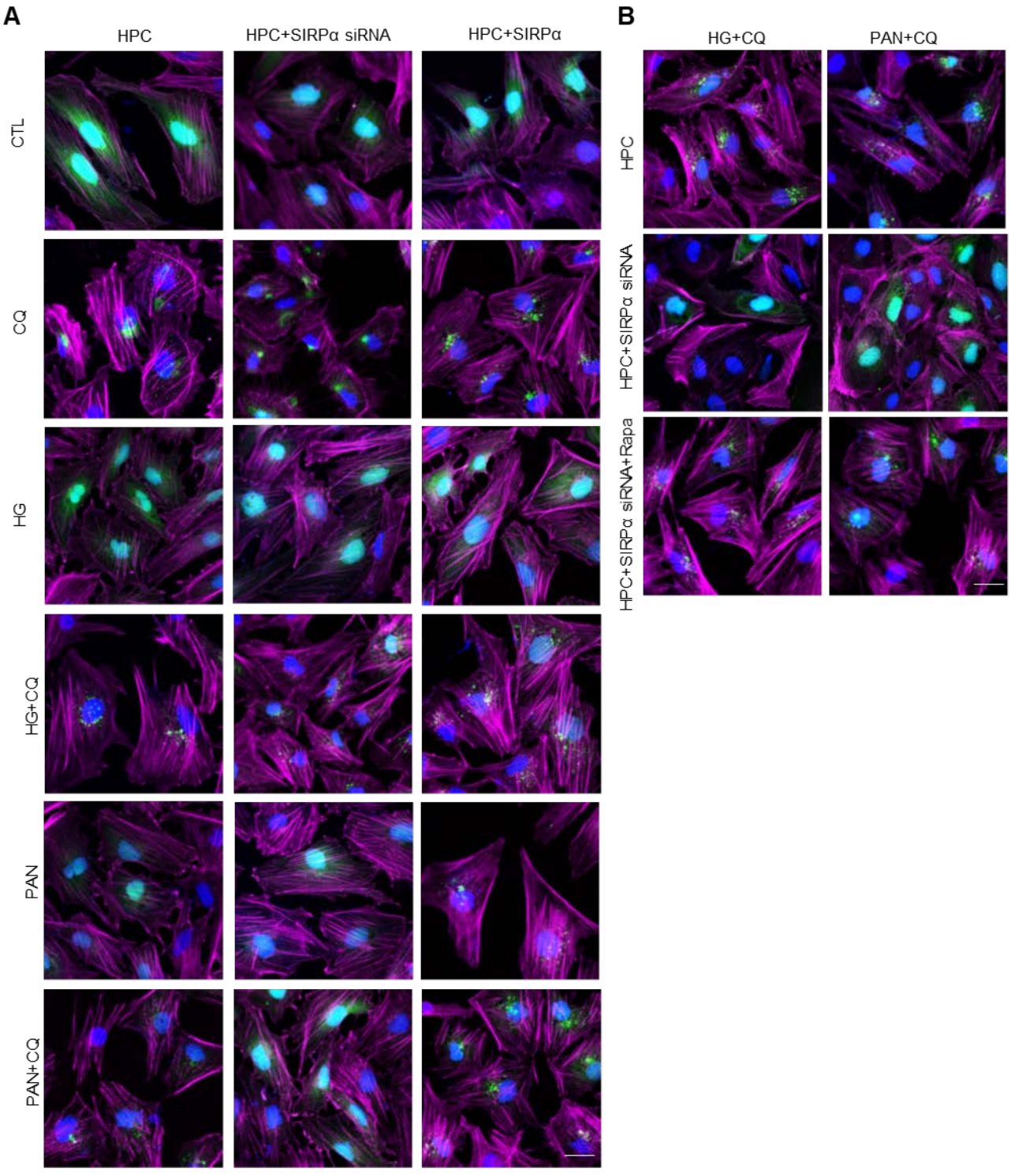
Supplementary Figure 4. Validation of SIRPα knockout in mouse glomerulus. **A**, Glomerular SIRPα was detected by western blotting in C57BL/6 and *Sirpa*$^{-/-}$ mice. Immunoblots were representative of 3 independently performed experiments. **B**, SIRPα was detected by immunofluorescence in in C57BL/6 and *Sirpa*$^{-/-}$ mice. Scale bar, 25μm.



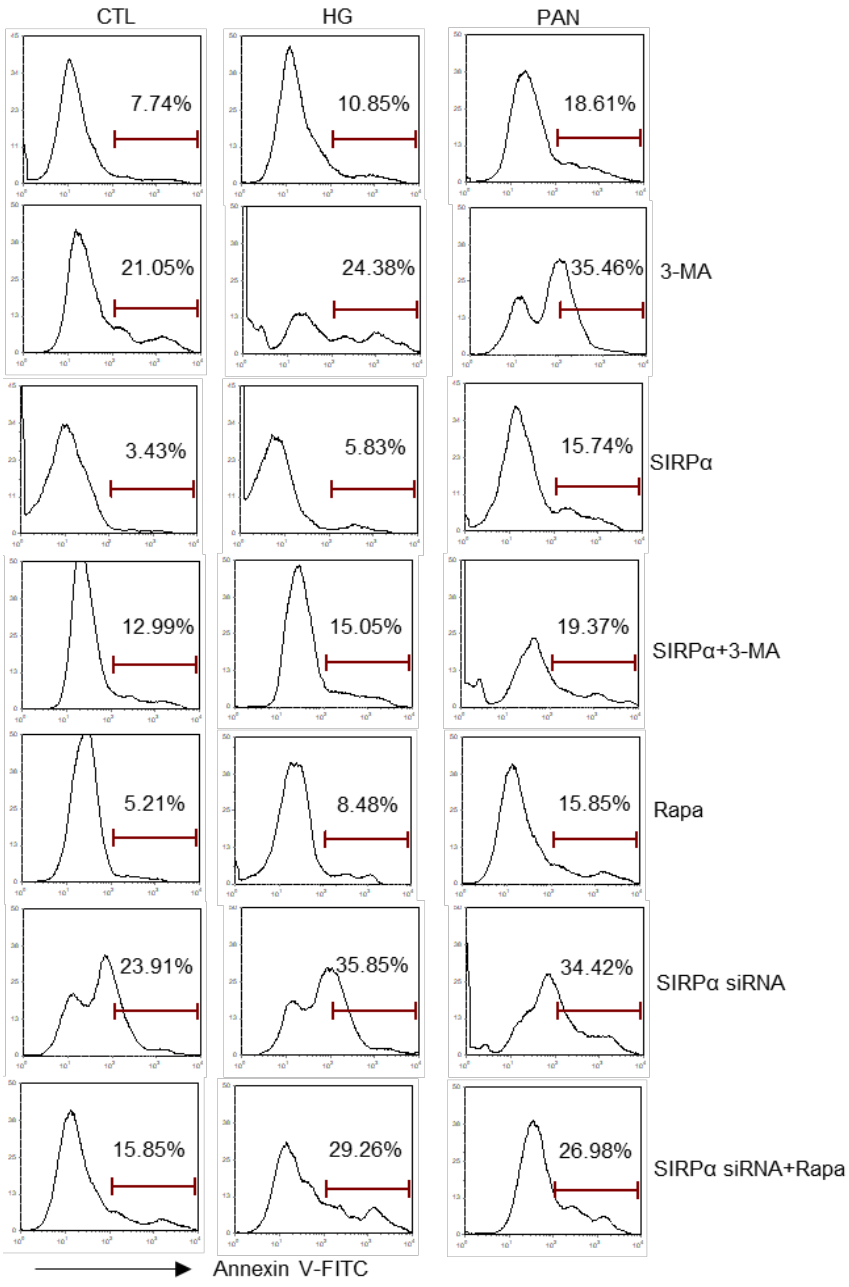
Supplementary Figure 5. LC3 level in human podocyte cell line HPC treated with PAN (**A**) or HG (**B**). Histograms are quantification of LC-II level normalized to GAPDH of three independent experiments. Data were presented as mean ± SEM, and P value was analyzed by ANOVA with Tukey-Kramer test. **C**, Autophagosomes in GFP-LC3-transgenic HPC treated with PAN or HG for 6 h or 12 h in the presence of CQ. Scale bar, 25μm.



Supplementary Figure 6. Expression level of podocin in HPC is regulated by SIRPα. Immunoblots are representative of 3 independently performed experiments.



Supplementary Figure 7. Analysis of autophagosomes in podocytes with various treatments using immune staining. A and B, Autophagosomes in GFP-LC3-transgenic HPC following different treatment. The results are representative of 3 independently performed experiments. Scale bar, 25μm.



Supplementary Figure 8. Flow cytometry results of PS-positive HPCs with different treatment. The results are representative of 3 independently performed experiments.