

Expanded View Figures

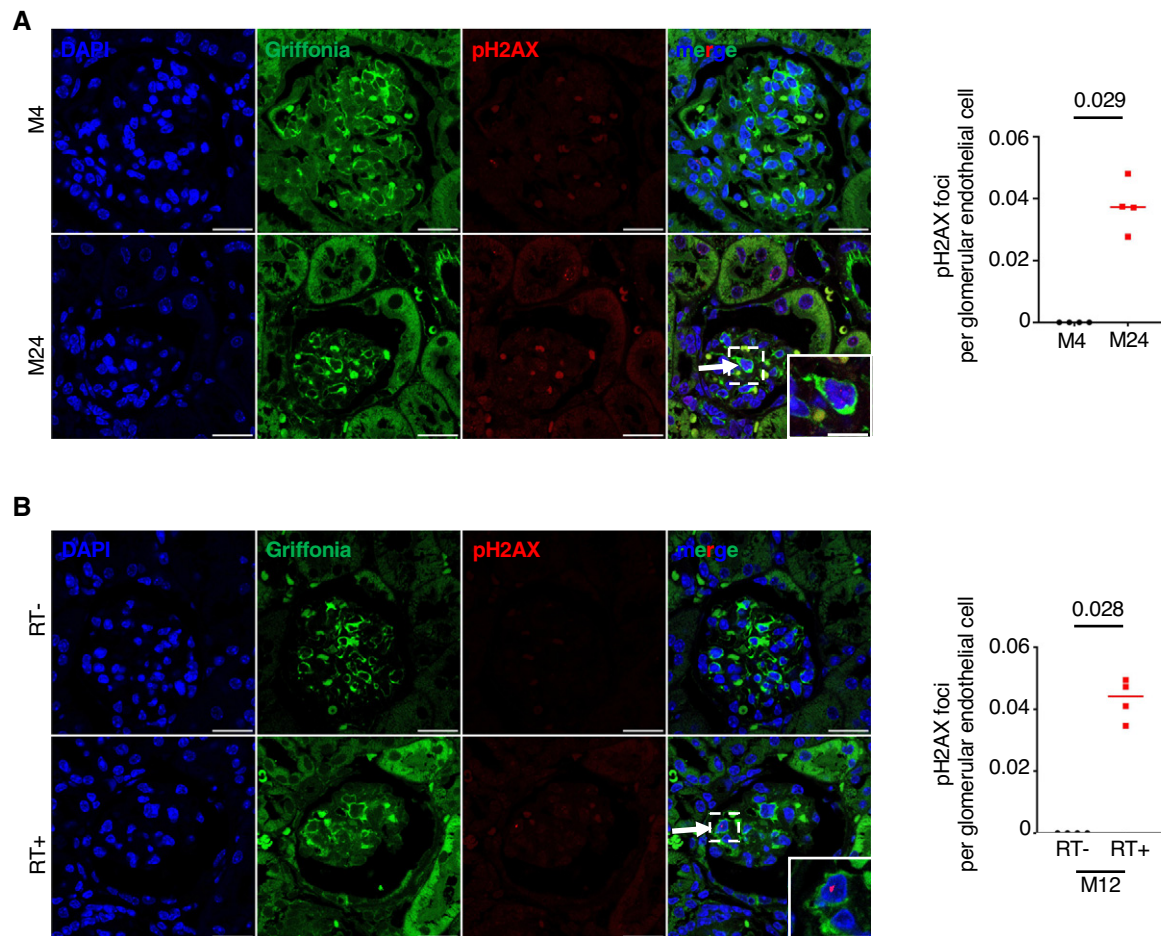


Figure EV1. Senescence affects endothelial cells in glomeruli and increases with age.

A, B pH2AX/griffonia simplicifolia coimmunostaining (left panels) and quantification (right panel) in kidneys from (A) young and aged mice and (B) 12-month-old irradiated and non-irradiated mice. Quantification represents the number of pH2AX foci per glomerular endothelial cell. Original magnification $\times 630$. Scale bar = 10 μm . Panels are representative images of four mice in each group. Data are means $\pm$ SEM. Statistical analysis: Student's *t*-test.

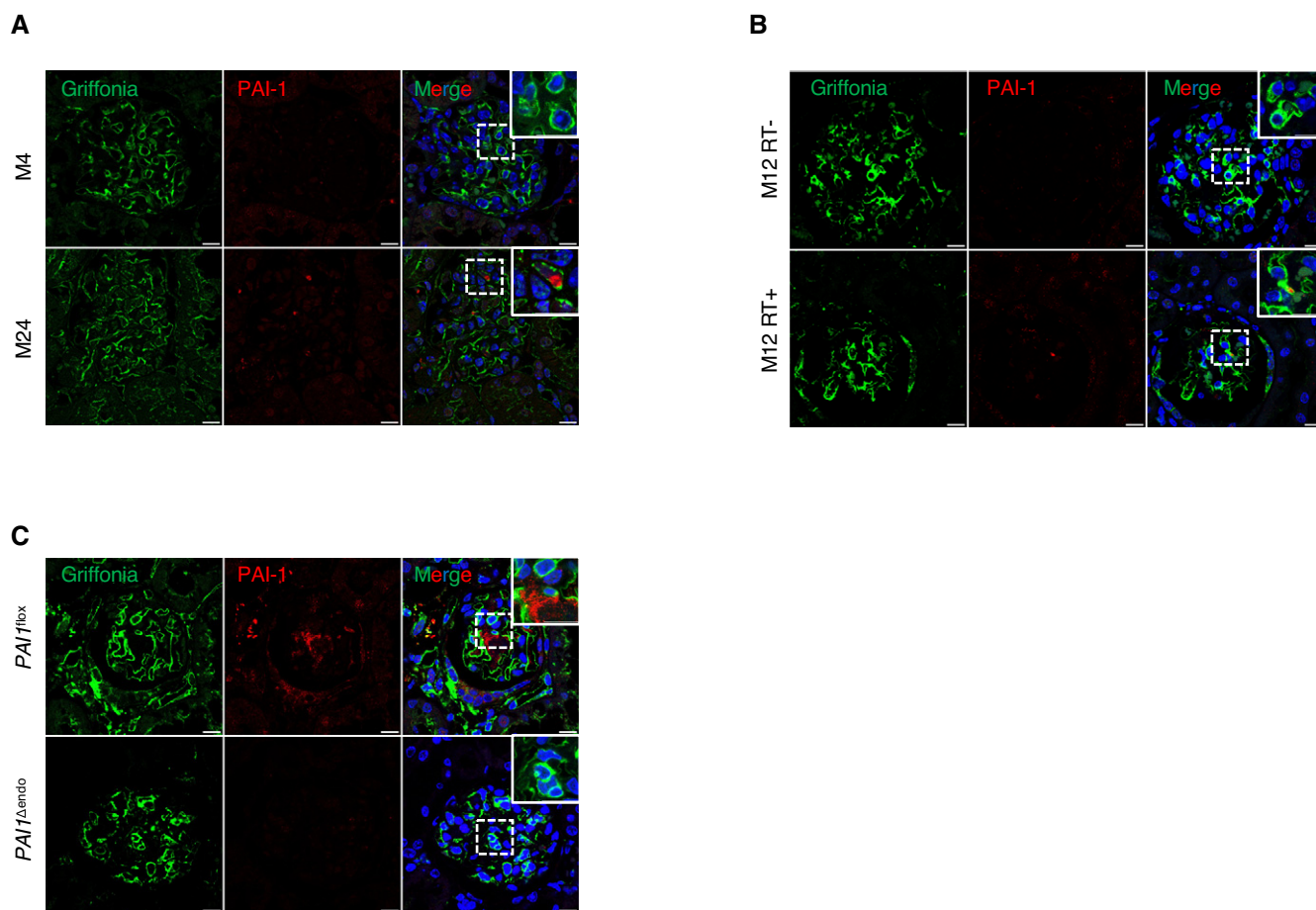


Figure EV2. PAI-1 is expressed in close vicinity to endothelial cells.

A, B PAI-1/griffonia simplicifolia coimmunostaining in kidneys from (A) young and aged mice and (B) 12-month-old irradiated and non-irradiated mice. C PAI-1/griffonia simplicifolia coimmunostaining in kidneys from 22-month-old *PAI-1^{flox}* and *PAI-1^{Δendo}* mice. Original magnification $\times 630$.

Data information: Scale bar = 10 μ m. Panels are representative images of four mice in each group.

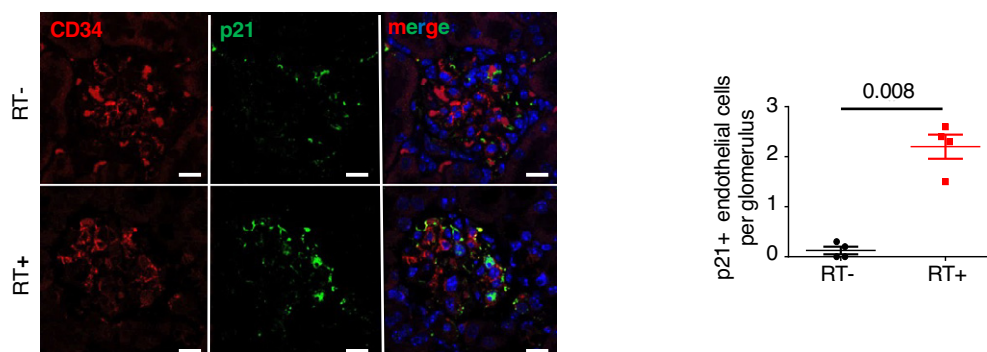


Figure EV3. Senescence affects endothelial cells in glomeruli of irradiated mice.

p21/CD34 coimmunostaining (left panels) and quantification (right panel) in 12-month-old irradiated or non-irradiated mice. Quantification represents the number of p21-positive glomerular endothelial cells. Original magnification $\times 630$. Scale bar = 10 μ m. Panels are representative images of four mice in each group. Data are means $\pm$ SEM. Statistical analysis: Student's t-test.

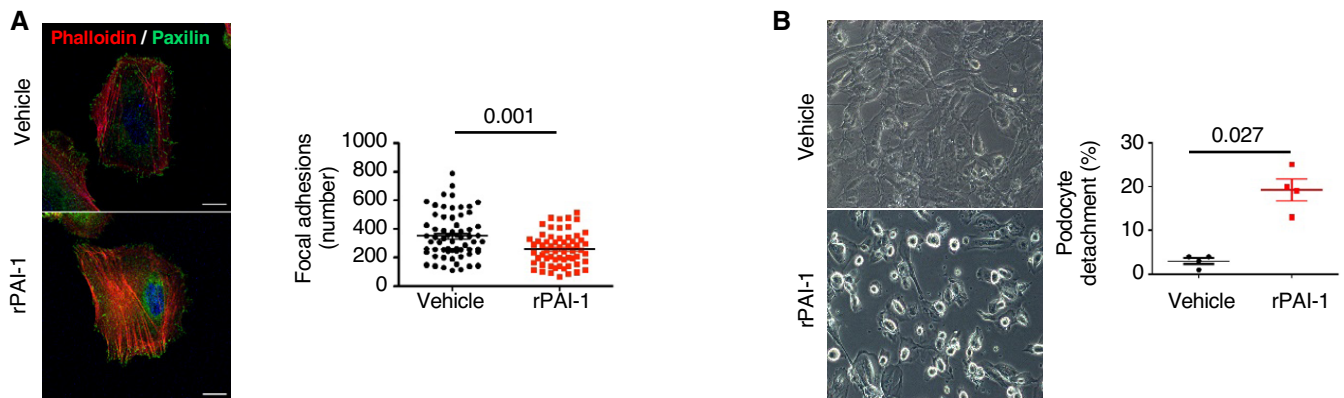


Figure EV4. Recombinant PAI-1 induces podocyte cytoskeleton modifications and detachment.

A Immunofluorescence of paxillin (green) and phalloidin (red) on podocytes stimulated for 30 min with recombinant PAI-1 at 5 nM. Quantification of focal adhesions (right panel) was performed by counting the number of paxillin-positive spots in 30 cells from three independent experiments. Original magnification $\times 1,000$. Scale bar = 20 μm .

B Podocyte morphology (left panels) and quantification of podocyte detachment (right panel) 30 min after stimulation by recombinant PAI-1 at 5 nM. Original magnification $\times 400$, $n = 4$ independent experiments.

Data information: Data are means $\pm$ SEM. Statistical analysis: Student's t -test.