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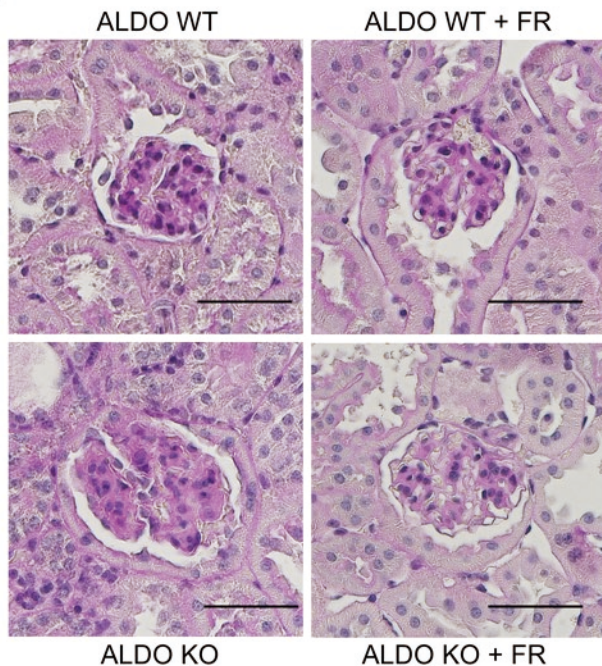
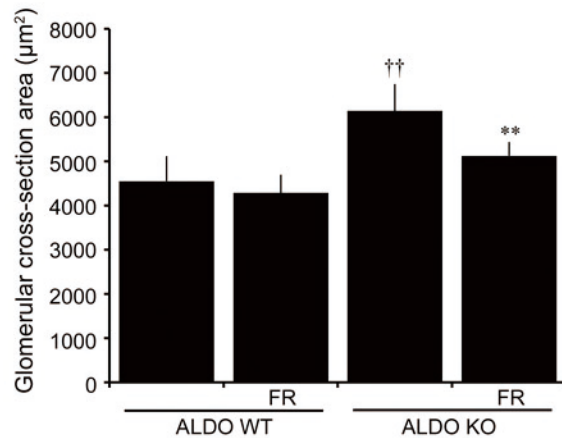
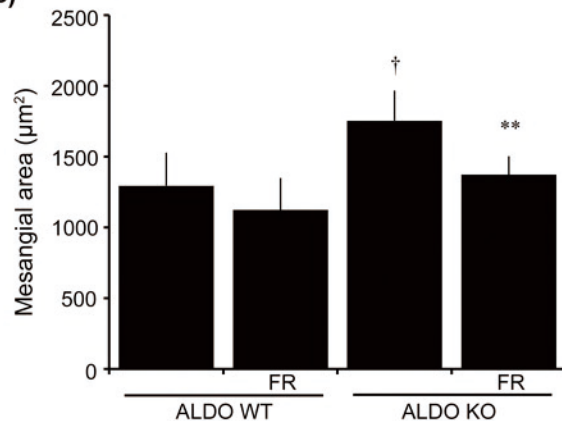
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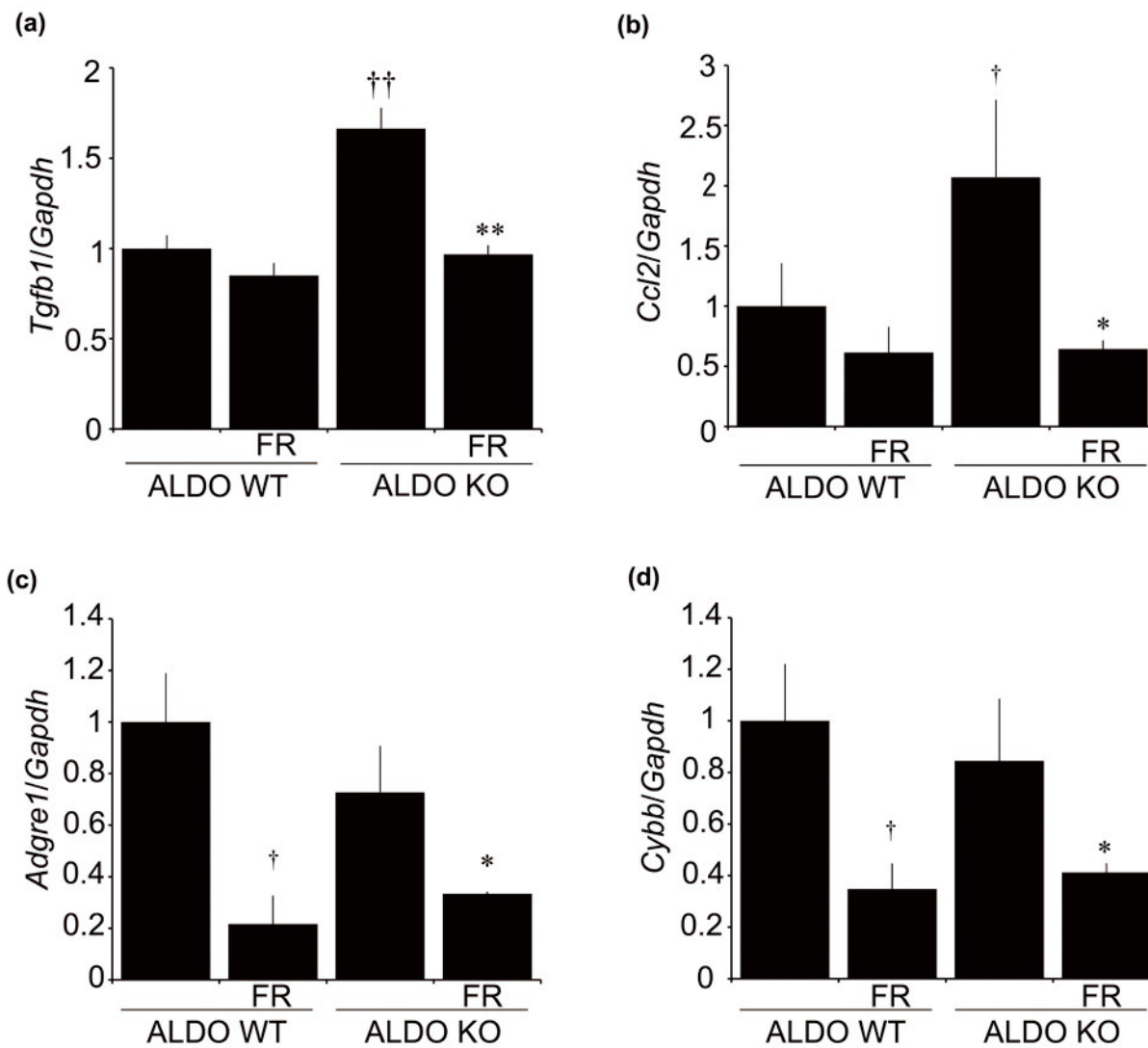
**Natriuretic peptide receptor guanylyl cyclase-A pathway counteracts glomerular injury evoked by aldosterone through p38 mitogen-activated protein kinase inhibition**

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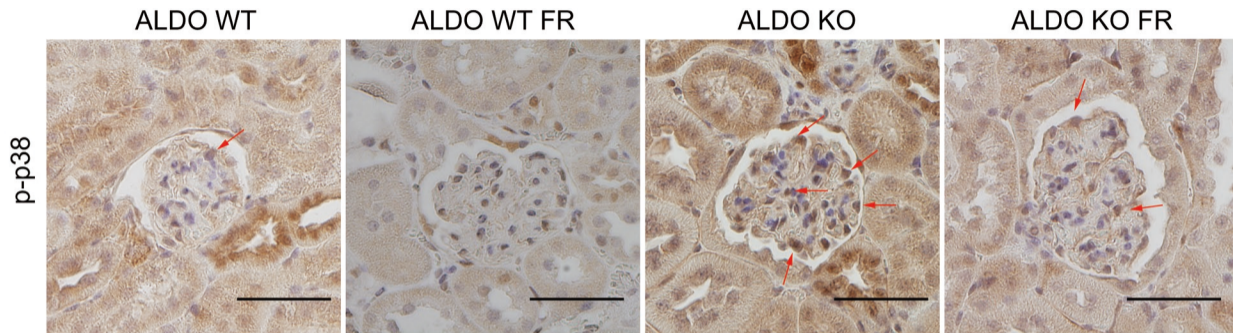
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**(a)****(b)****(c)**

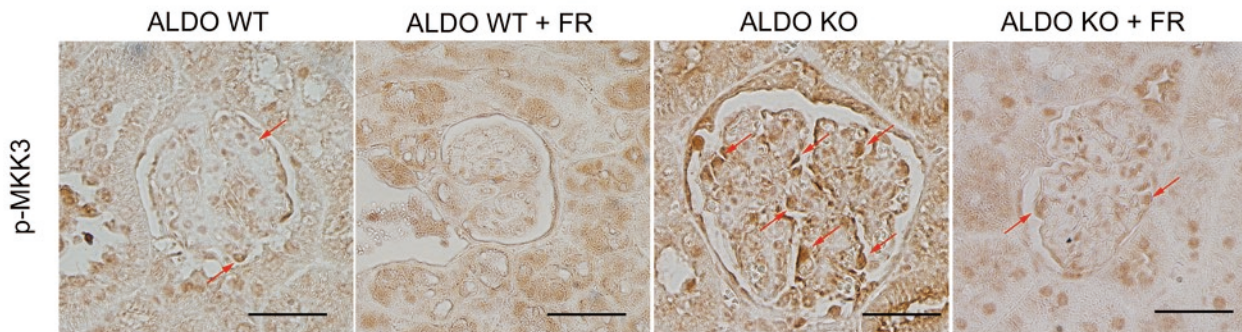
**Supplementary Figure S1.** Histological examination of superficial glomeruli in ALDO systemic GC-A KO mice. **(a)** Light microscopic analyses were performed at 4 weeks after aldosterone administration, stained with periodic acid-Schiff. In superficial glomeruli, ALDO systemic GC-A KO mice showed mild glomerular and mesangial hypertrophy. Treatment with FR167653 improved these changes. Scale bar, 50 µm. **(b)** Glomerular cross-sectional area and **(c)** mesangial area in superficial glomeruli at 4 weeks. Mean ± SEM. †*p* < 0.05, ††*p* < 0.01 vs. ALDO wild-type mice. \**p* < 0.05, \*\**p* < 0.01 vs. ALDO systemic GC-A KO mice.



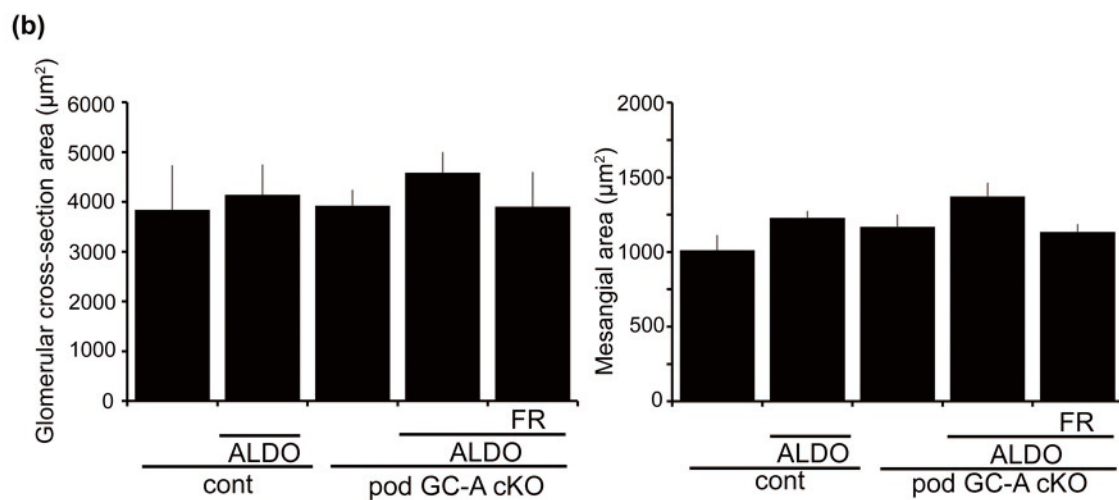
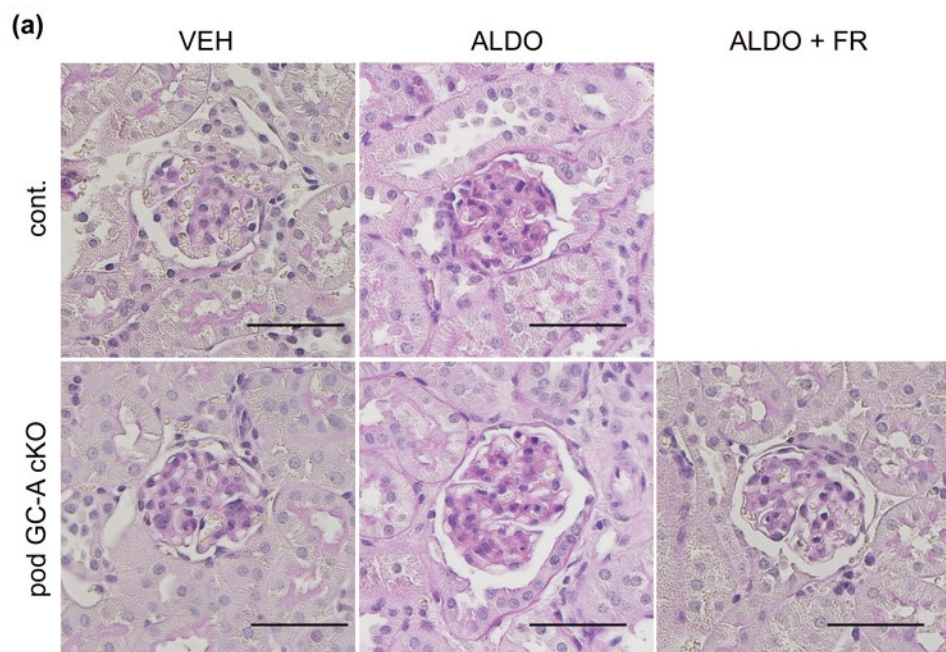
**Supplementary Figure S2.** Glomerular mRNA expression at 4 weeks after aldosterone administration. Real-time RT-PCR analysis of (a) *Tgfb1* (TGF- $\beta$ 1), (b) *Ccl2* (MCP1), (c) *Adgre1* (F4/80) and (d) *Cybb* (Cybb) are shown. n = 5, each. Mean  $\pm$  SEM. \* $p$  < 0.05, \*\* $p$  < 0.01 vs. ALDO wild-type mice, † $p$  < 0.05, †† $p$  < 0.01, vs. ALDO systemic GC-A KO mice.



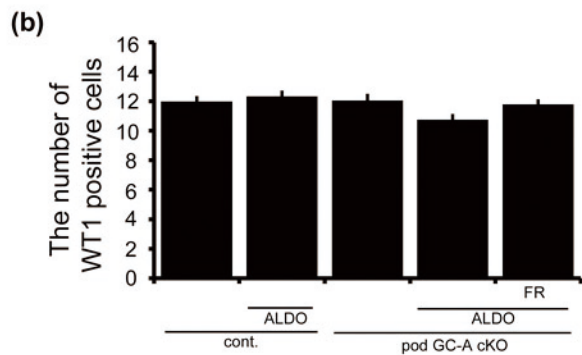
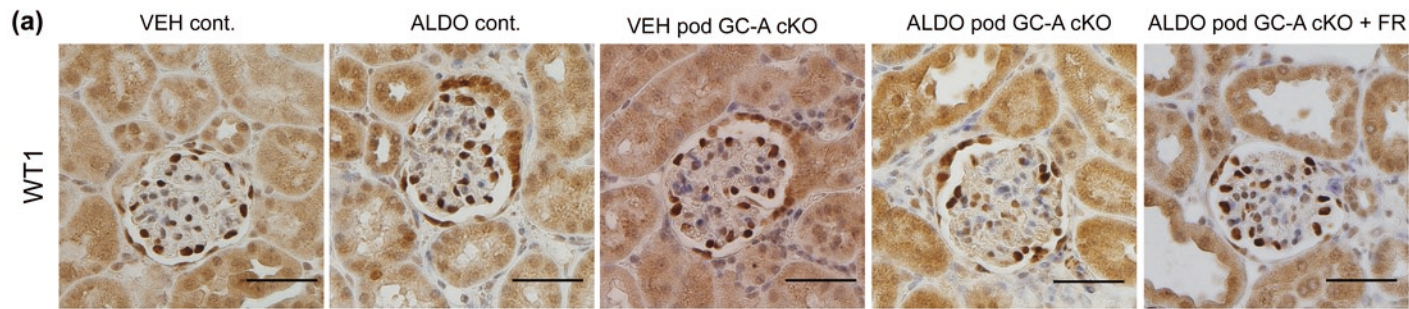
**Supplementary Figure S3.** Immunohistochemical study for phosphorylation of p38 MAPK in ALDO systemic GC-A KO mice with or without FR167653. Arrows, p-p38 MAPK-positive cells. Scale bar, 50  $\mu\text{m}$ .



**Supplementary Figure S4.** Immunohistochemical study for phosphorylation of MKK3 in ALDO systemic GC-A KO mice with or without FR167653. Arrows, p-MKK3-positive cells. Scale bar, 50  $\mu$ m.



**Supplementary Figure S5.** (a) PAS staining of renal section of superficial glomeruli, and (b) their glomerular cross-sectional area and mesangial area in VEH or ALDO pod GC-A KO mice. FR167653 was administered to ALDO pod GC-A cKO mice. Scale bars, 50  $\mu\text{m}$ .  $n = 5$ , each. Mean  $\pm$  SEM.



**Supplementary Figure S6.** (a) Immunohistochemical study for WT1 of superficial glomeruli in pod GC-A cKO mice. Administration of aldosterone did not decrease WT1-positive cells in superficial glomeruli. (b) The number of WT1 positive cells in superficial glomeruli. Mean  $\pm$  SEM. Scale bar, 50  $\mu$ m.