SUPPLEMENTAL MATERIAL

TableS1. Impacts of diet and rat strain on urinary parameters, renal histology and expression of renal RAS components

	Diet	Strain	Interaction
Urinary albumin excretion	<0.05	n.s.	<0.05
Urinary L-FABP excretion	<0.05	<0.05	n.s.
Index of glomerular sclerosis	<0.05	<0.05	n.s.
Desmin positive area	<0.05	<0.05	<0.05
Media/lumen ratio	<0.05	<0.05	<0.05
Relative interstitial volume	<0.05	<0.05	<0.05
Angiotensinogen	n.s	n.s.	n.s.
Renin	n.s.	<0.05	<0.05
Angiotensin converting enzyme	<0.05	<0.05	n.s.
Angiotensin converting enzyme activity	<0.05	<0.05	<0.05
(Pro)renin receptor	<0.05	<0.05	n.s.
Angiotensin II type 1 receptor	n.s	<0.05	<0.05
Angiotensin II type 2 receptor	n.s.	<0.05	<0.05

n.s. no significance.

Table S2. Effects of enalapril and candesartan on body weight and plasma parameters in control diet-fed Dahl salt-sensitive rats

	Con	Con-Ena	Con-Can
Body weight(g)	398 ± 6	392 ± 7	395 ± 5
Triglyceride (mg/dL)	267 ± 27	226 ± 33	259 ± 18
Total cholesterol (mg/dL)	76 ± 1	57 ± 2**	74 ± 2
Free fatty acid (mEq/L)	218 ± 16	325 ± 11**	292 ± 20*
Glucose (mg/dL)	152 ± 9	175 ± 4	173 ± 3
Creatinine (mg/dL)	0.35 ± 0.02	0.33 ± 0.01	0.32 ± 0.01
Uric acid (mg/dL)	1.64 ± 0.05	1.43 ± 0.10	1.36 ± 0.04**
CCr (ml/min)	3.03 ± 0.16	2.95 ± 0.11	3.16 ± 0.09
Renin activity (ng/mL/hr)	5.7 ± 0.8	50.0 ± 5.6**	59.7 ± 4.3**

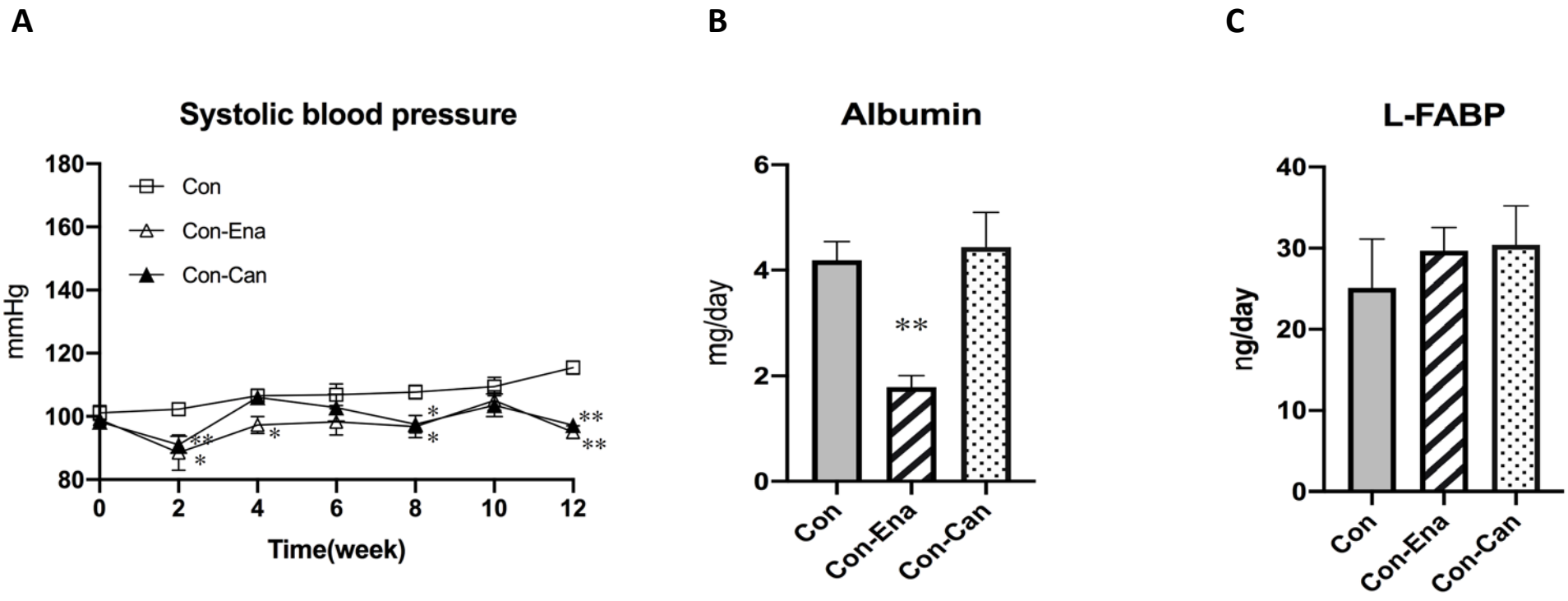
Con, control diet-fed Dahl salt-sensitive rats(n=6) ; Con-Ena, enalapril-treated and control diet-fed Dahl salt-sensitive rats(n=6) ; Con-Can, candesartan-treated and control diet-fed Dahl salt-salt sensitive rats(n=6) . HOMA-IR, homeostasis model assessment for insulin resistance; CCr, creatinine clearance. Data are presented as means±SE. *P<0.05, **P<0.01 compared with the Con group.

Table S3. Effects of hydralazine and hydrochlorothiazide on body weight and plasma parameters in high fructose-fed Dahl salt-sensitive rats

	Con	HFr	HFr-Hyd	HFr-HCTZ
Body weight(g)	398 ± 6	397 ± 6	372 ± 6 *#	383 ± 5
HOMA-IR	0.56 ± 0.04	0.70 ± 0.04*	0.69 ± 0.02*	n.d.
Triglyceride (mg/dL)	267 ± 27	882 ± 49**	595 ± 67**##	816 ± 53 **
Total cholesterol (mg/dL)	76 ± 1	105 ± 2**	89 ± 2 **##	97 ± 5 **
Free fatty acid (mEq/L)	218 ± 16	386 ± 37**	235 ± 19 ##	292 ± 22 *
Glucose (mg/dL)	152 ± 9	194 ± 8**	185 ± 5 **	183 ± 6 **
Creatinine (mg/dL)	0.35 ± 0.02	0.22 ± 0.02**	0.27 ± 0.01**	0.25 ± 0.01 **
Uric acid (mg/dL)	1.64 ± 0.05	2.13 ± 0.08**	1.65 ± 0.06 ##	1.88 ± 0.06 *
CCr (ml/min)	3.03 ± 0.16	3.91 ± 0.27*	4.43 ± 0.43*	2.93 ± 0.19 #

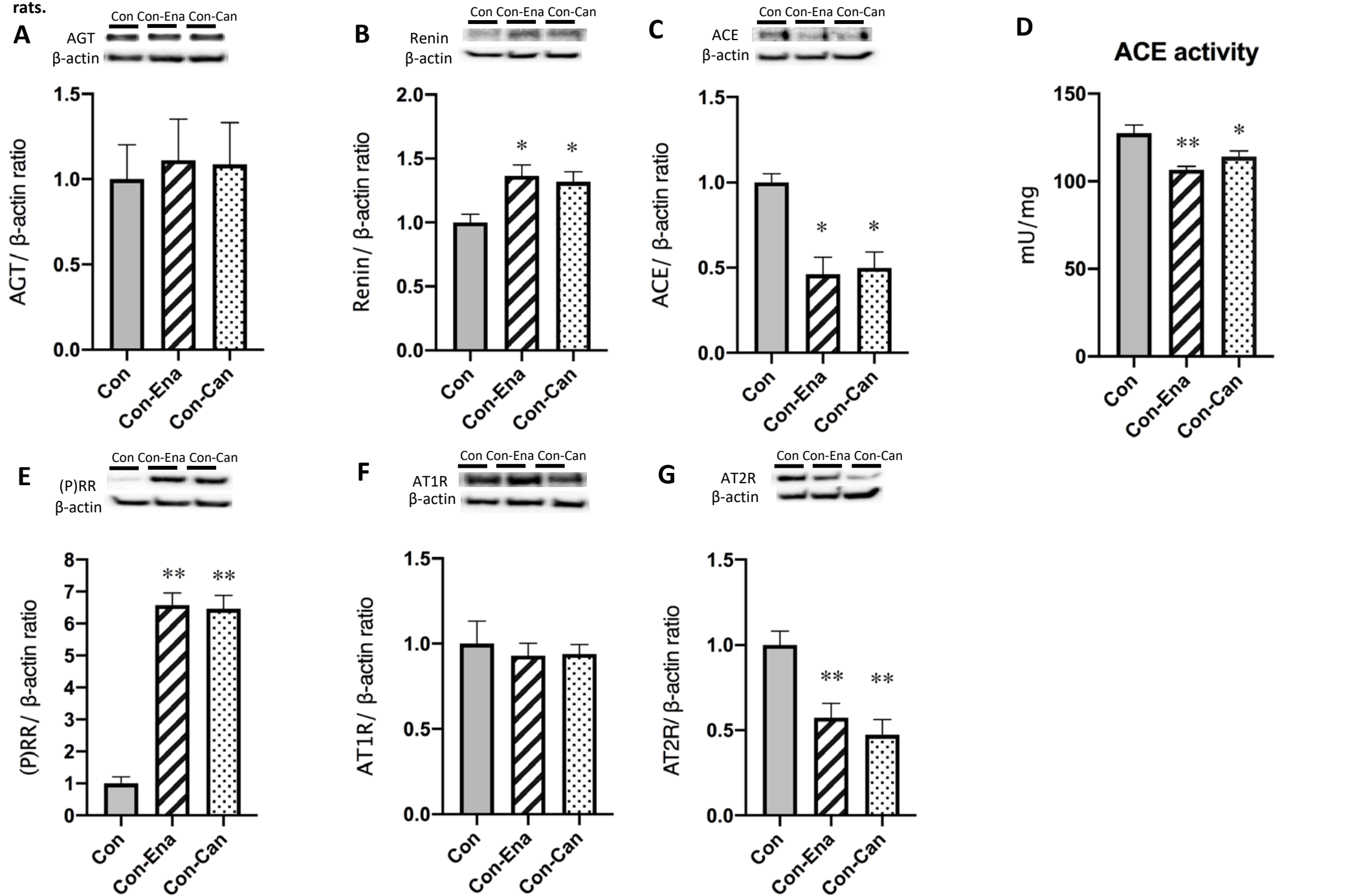
Con, control diet-fed Dahl salt-sensitive rats (n=6) ; HFr, high fructose -fed Dahl salt-sensitive rats (n=6) ; HFr-Hyd, hydralazine-treated and high fructose-fed Dahl salt-sensitive rats (n=6) ; HFr-HCTZ, hydrochlorothiazide -treated and high fructose-fed Dahl salt-sensitive rats (n=6). CCr, creatinine clearance; n.d., not determined. Data are presented as means±SE. *P<0.05, **P<0.01 compared with the Con group; #P<0.05, ##P<0.01 compared with the HFr group.

Figure S1. Effects of enalapril (Ena) and candesartan (Can) of Control diet-fed DS rats.



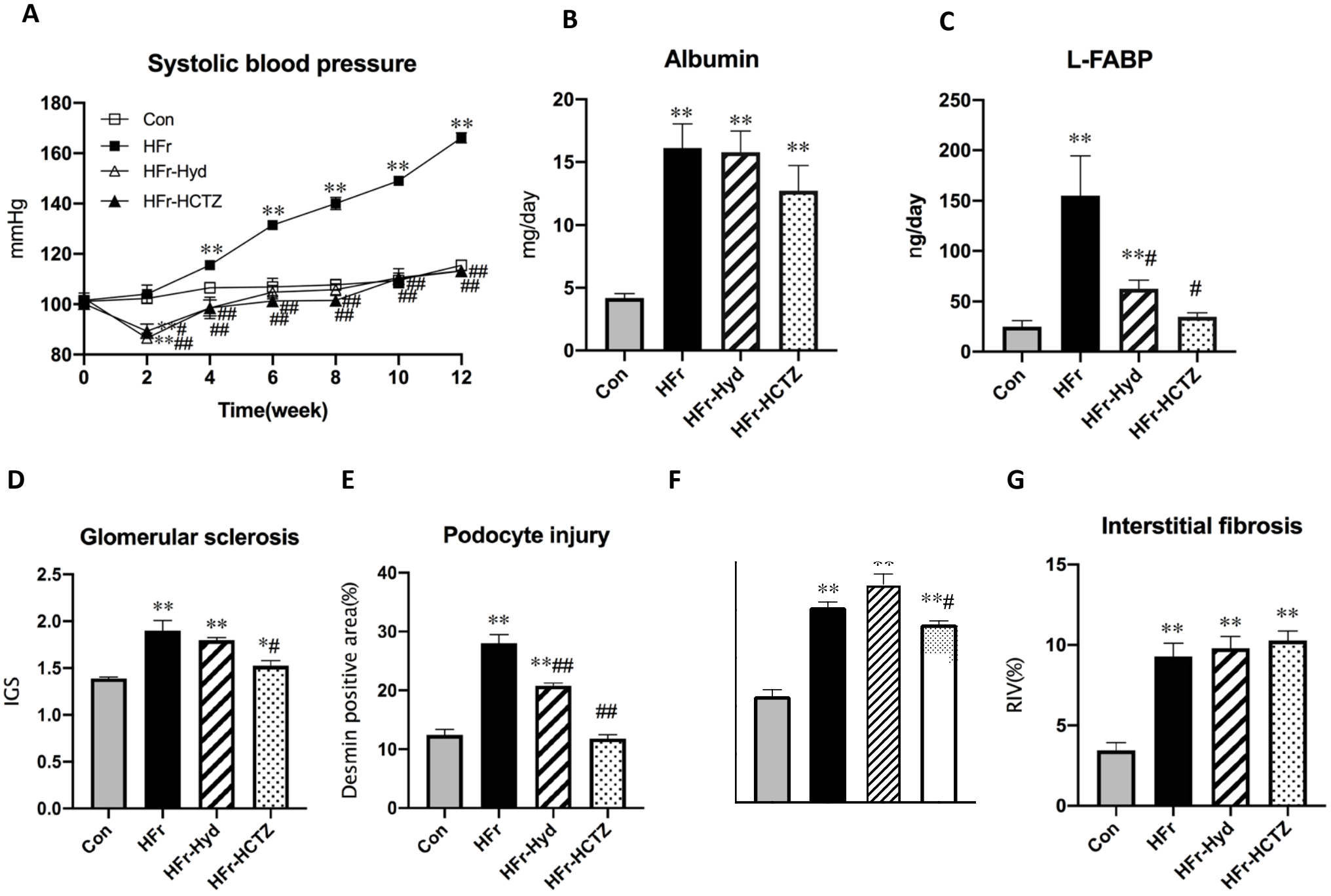
(**A**) systolic blood pressure, (**B**) urine albumin excretion and (**C**)urinary liver type-fatty acid binding protein(L-FABP) excretion were examined in the control group(Con)(n=6) , Con-Ena(n=6) ,and Con-Can(n=6) groups. Data are presented as means ± SE . *P<0.05, **P<0.01 compared with the Con group.

Figure S2. Effects of enalapril(Ena) and candesartan(Can) on the expression of renin-angiotensin system(RAS) components in the renal cortex of control diet(Con)-fed DS rats.



(**A**)Angiotensinogen(AGT), (**B**) renin, (**C**) angiotensin converting enzyme(ACE), (**E**) (pro)renin receptor((P)RR), (**F**) angiotensin II type 1 receptor(AT1R), (**G**)angiotensin II type 2 receptor(AT2R) protein expression was examined by western blot analysis, and (**D**)renal ACE activity was examined in the Con (n=6), Con-Ena (n=6) ,and Con-Can (n=6) groups. Top panels depict representative immunoblots from the different groups. The intensities of each specific protein band were normalized to that of β-actin, and the mean intensities of the values for the Con group. Data are presented as means ± SE. *P<0.05, **P<0.01 compared with the Con group.

Figure S3. Effects of Hydralazin(Hyd) and hydrochlorothiazide (HCTZ) of high fructose diet (HFr)-fed DS rats.



(**A**) systolic blood pressure, (**B**) urine albumin excretion and (**C**) urinary liver type fatty acid binding protein(L-FABP), (**D**) glomerular sclerosis, (**E**)podocyte injury, (**F**) arteriolar thickening, and (**G**) interstitial fibrosis were examined in the control(Con) (n=6), HFr (n=6), HFr-Hyd (n=6) and HFr-HCTZ (n=6) groups. . Data are presented as means $\pm$ SE. *P<0.05, **P<0.01 compared with the Con group; #P<0.05, ##P<0.01 compared with the HFr group.