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CS-3150, a novel non-steroidal mineralocorticoid receptor antagonist, shows preventive and therapeutic effects on renal injury in DOCA/salt-induced hypertensive rats

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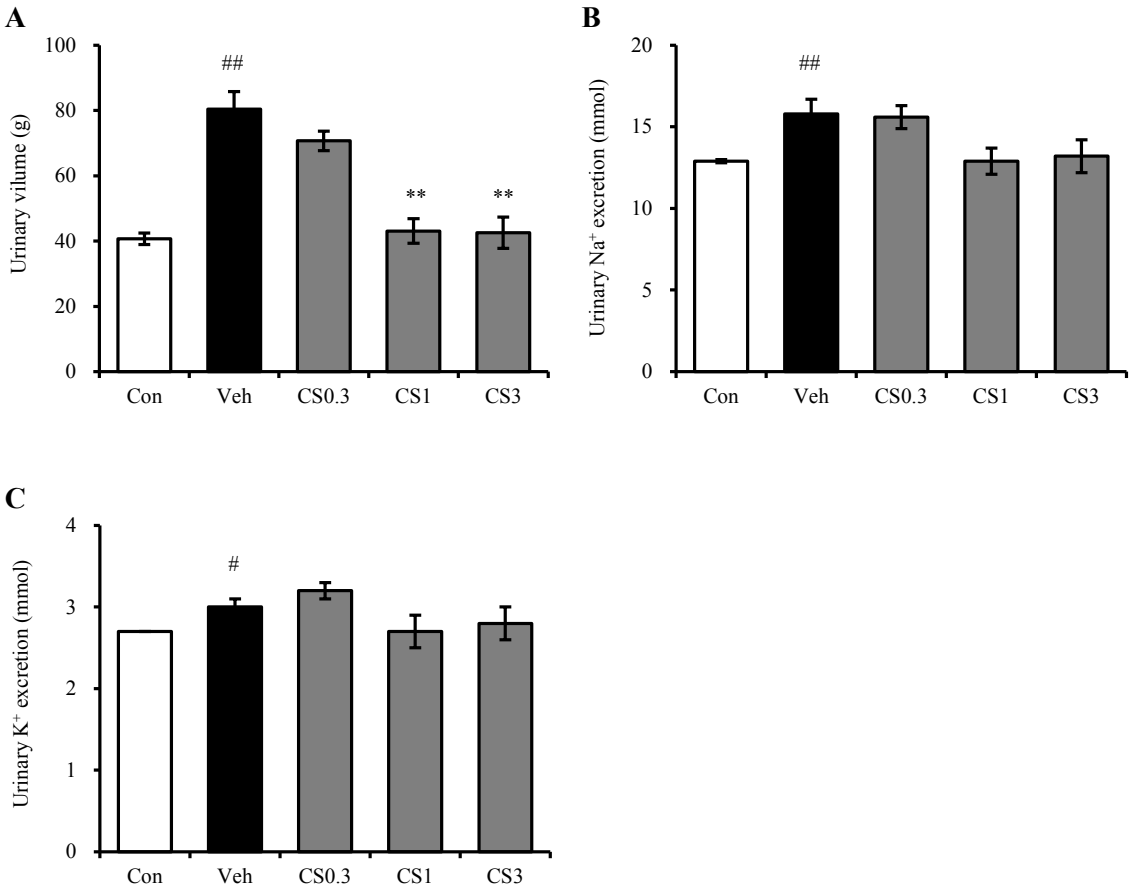
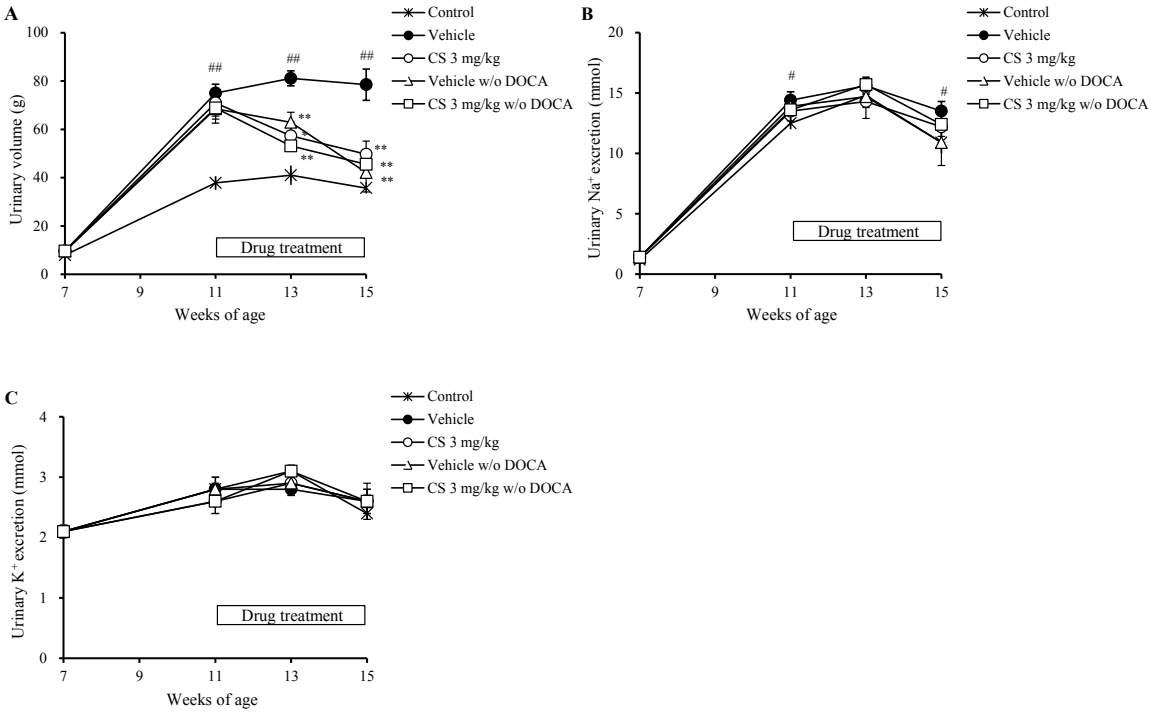
Supplemental Figures



Supplemental Fig. 1. Effects of CS-3150 on urinary volume, Na^+ and K^+ excretions in DOCA/salt-induced hypertensive rats (in experiment 1). From 7 weeks of age, CS-3150 (0.3 to 3 mg/kg) was orally administered to DOCA rats once a day for 4 weeks. Urine was collected for 24 h at 11 weeks of age, and urinary volume (A) and Na^+ and K^+ concentrations were measured. Urinary Na^+ (B) and K^+ (C) excretions for 24 h were calculated. Con: control group (no DOCA administered). Veh: vehicle-treated group. CS0.3: CS-3150 (0.3 mg/kg)-treated group. CS1: CS-3150 (1 mg/kg)-treated group. CS3: CS-3150 (3 mg/kg)-treated group. Data are expressed as mean ± S.E.M (N = 6 in each group). $^{\#}P < 0.05$, $^{\#\#}P < 0.01$ vs. control, $^{**}P < 0.01$ vs. vehicle.



Supplemental Fig. 2. Effects of CS-3150 on urinary volume, Na^+ and K^+ excretions in DOCA/salt-induced hypertensive rats (in experiment 2). From 7 weeks of age, DOCA was subcutaneously administered once a week for 4 weeks to uninephrectomized rats fed a high-salt (4% NaCl) diet. From 11 weeks of age, CS-3150 (3 mg/kg) was orally administered once a day for 4 weeks with or without continuous DOCA administration. Urine was collected for 24 h at 7, 11, 13 and 15 weeks of age, and urinary volume (A) and Na^+ and K^+ concentrations were measured. Urinary Na^+ (B) and K^+ (C) excretions for 24 h were calculated. Data are expressed as mean ± S.E.M (N = 6 in each group). $^{\#}P < 0.05$, $^{\#\#}P < 0.01$ vs. control, $^{*}P < 0.05$, $^{**}P < 0.01$ vs. vehicle.

Supplemental Table 1. Effect of CS-3150 on urinary MCP-1 excretion in DOCA/salt-induced hypertensive rats at 11 weeks of age (in experiment 1). Data are expressed as mean ± S.E.M (N = 6 in each group). $^{\#\#}$ $P < 0.01$ vs. Control, ** $P < 0.01$ vs. Vehicle. CS: CS-3150.

Group	Urinary MCP-1 excretion (ng/day)
Control	1.7 ± 0.2
Vehicle	16.2 ± 1.9 $^{\#\#}$
CS 0.3 mg/kg	8.0 ± 0.4 **
CS 1 mg/kg	1.9 ± 0.2 **
CS 3 mg/kg	1.5 ± 0.1 **

Supplemental Table 2. Effect of CS-3150 on urinary MCP-1 excretion in DOCA/salt-induced hypertensive rats at 15 weeks of age (in experiment 2). Data are expressed as mean ± S.E.M (N = 6 in each group). $^{\#\#}$ $P < 0.01$ vs. Control, ** $P < 0.01$ vs. Vehicle. CS: CS-3150.

Group	Urinary MCP-1 excretion (ng/day)
Control	1.5 ± 0.2
Vehicle	18.4 ± 1.8 $^{\#\#}$
CS 3 mg/kg	2.3 ± 0.2 **
Vehicle w/o DOCA	2.3 ± 0.1 **
CS 3 mg/kg w/o DOCA	1.3 ± 0.1 **