

SUPPLEMENTAL MATERIAL

Inhibition of mTORC2 promotes natriuresis in Dahl salt-sensitive rats via the decrease of NCC and ENaC activity

Chun Yang^{*1}, Elena Isaeva^{*2}, Satoshi Shimada¹, Theresa Kurth¹, Megan Stumpf¹, Nadezhda N. Zheleznova³, Alexander Staruschenko³, Ranjan K. Dash^{1,4}, Allen W. Cowley Jr¹

¹Department of Physiology, Medical College of Wisconsin, Milwaukee, WI 53226

²Department of Cell Biology, Neurobiology and Anatomy, Medical College of Wisconsin, Milwaukee, WI 53226

³Department of Molecular Pharmacology and Physiology, University of South Florida, Tampa, FL 33602

⁴Department of Biomedical Engineering, Medical College of Wisconsin, Milwaukee, WI 53226

*Equal contributions

Short title: mTORC2 promotes NCC and ENaC activity

Address for correspondence:

Allen W. Cowley, Jr, Ph.D.

Department of Physiology

Medical College of Wisconsin

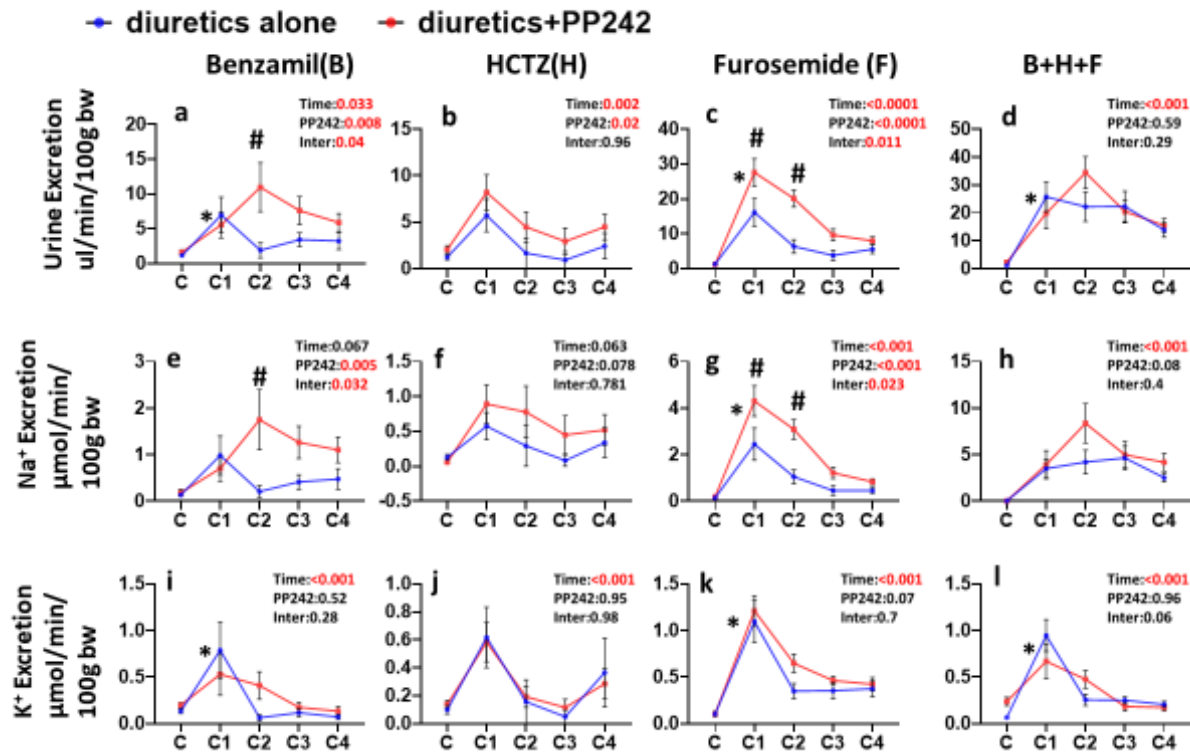
8701 Watertown Plank Rd

Milwaukee, WI 53226

Email: cowley@mcw.edu; Tel: 414-955-8277

Figure 2S1.

A- Normal salt diet.



B- High salt diet.

—●— diuretics alone —●— diuretics+PP242

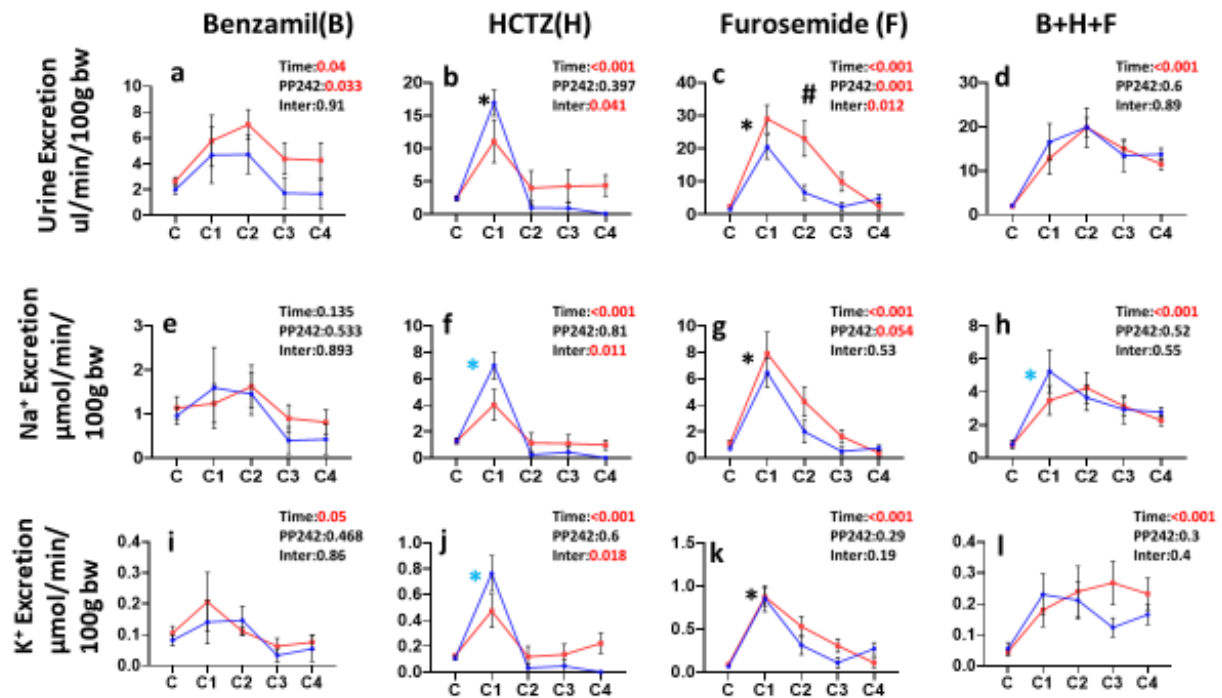


Figure 2S1: Dynamic responses to diuretic treatment alone and with co-administration of PP242 in NS (A) and HS (B) fed SS rats. The urine volumes and Na⁺ and K⁺ excretion rates in each of the 20-minute urine collections (C1-C4) are plotted to show peak responses and the return excretion. The rates of the baseline collection were presented as C. P values of ANOVA analysis were presented in the inset. *: p<0.05 C vs C1. Black: both groups; blue: only diuretic group. #: p<0.05 diuretic alone vs diuretic + PP242 in multiple comparisons of ANOVA analysis. P values of ANOVA analysis for the factors of collection time and PP242 effect and their interactions were presented in each graphical figure.

Figure 2S2.

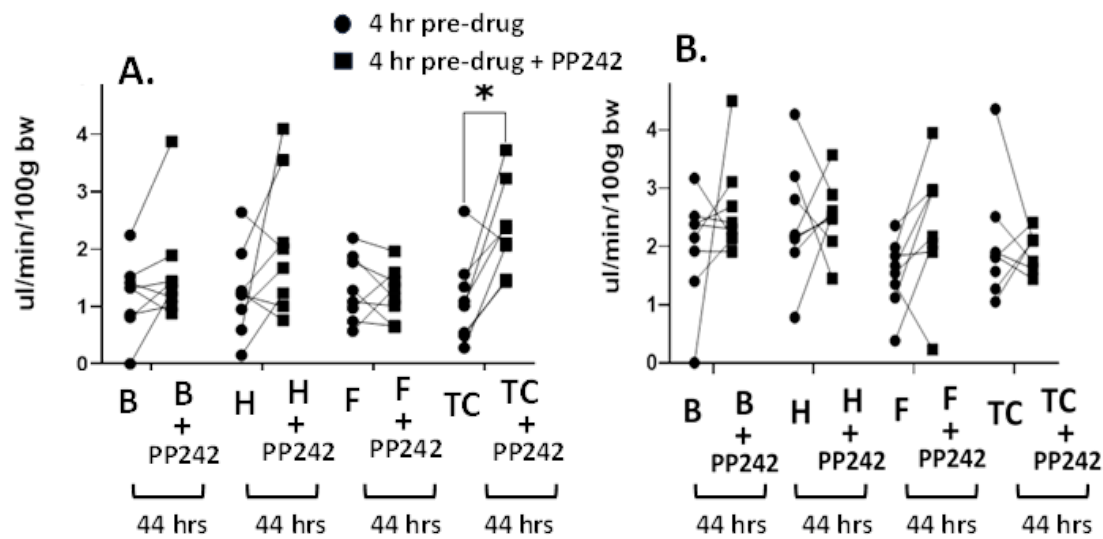


Figure 2S2: Panel A. Rats fed 0.4% NaCl salt diet - summary of the urine excretion volumes/100g body wt of individual rats determined during the 4 hours baseline urine collection prior to drug injections without PP242 (solid circles) and then 44 hours later prior to injection of drug plus PP242 (solid squares). **Panel B.** Rats fed high salt diet (4.0% NaCl) for 21 days – summary of urine excretion data as in Figure A. B (benzamil), H (hydrochlorothiazide), F (furosemide), TC (B+H+F). * P<0.05 in paired Student t-test.