

## Supporting information

### **Resveratrol, a novel inhibitor of GLUT9, ameliorates liver and kidney injuries in d-galactose-induced aging mouse model by regulating uric acid metabolism**

Lu Li<sup>#</sup>, Yongmei Li<sup>#</sup>, Jian Luo, Yanqing Jiang, Zean Zhao, Yanyu Chen, Ting Wu\*,  
Jianxin Pang\*

#### **Author affiliations:**

Guangdong Provincial Key Laboratory of Drug Screening, School of Pharmaceutical Sciences, Southern Medical University, Guangzhou, Guangdong, 510515, China.

<sup>#</sup> These two authors contributed equally to this manuscript.

#### **\*Corresponding Author:**

Jianxin Pang, School of Pharmaceutical Sciences, Southern Medical University 1838  
North Guangzhou Ave, Guangzhou, China.

Tel.: +86(20)61648671; Fax: 020-61648671.

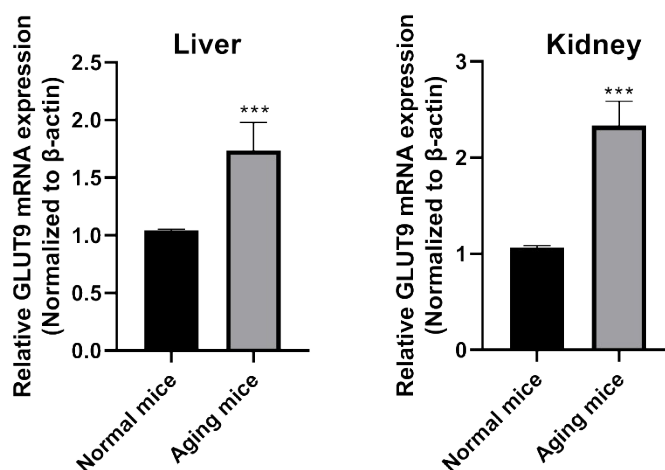
Email: [pjx@smu.edu.cn](mailto:pjx@smu.edu.cn)

#### **\*Additional corresponding author:**

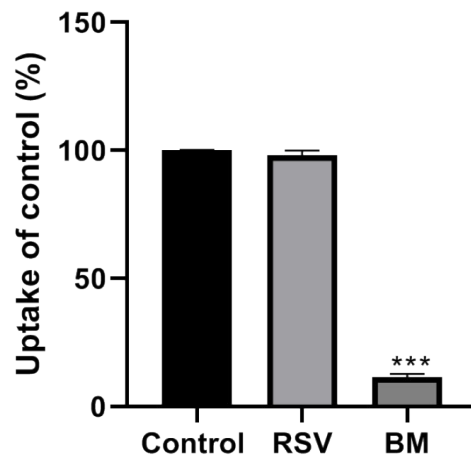
Ting Wu, School of Pharmaceutical Sciences, Southern Medical University 1838 North  
Guangzhou Ave, Guangzhou, China.

Table S1. Primer sequences used in quantitative real-time polymerase chain reaction (qPCR) analysis

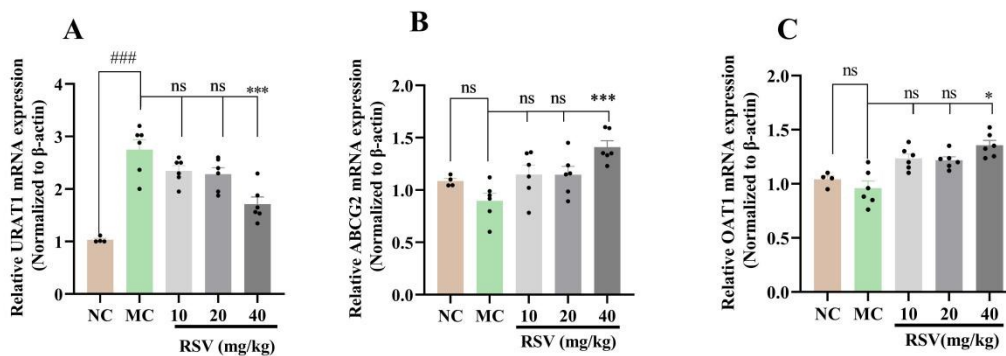
Gene name	Forward/reverse primer sequence (5'-3')
mGLUT9	TTGCTTTAGCTTCCCTGATGTG GAGAGGTTGTACCCGTAGAGG
mURAT1	TCTTCTGGCCGTCTCCATC AGCTGCCATTGAGGTTGTCTG
mIL-1 $\beta$	GAAATGCCACCTTTTGACAGTG TGGATGCTCTCATCAGGACAG
mIL-6	TAGTCCTTCCTACCCCAATTCC TTGGTCCTTAGCCACTCCTTC
mTNF- $\alpha$	CAGGCGGTGCCTATGTCTC CGATCACCCCGAAGTTCAGTAG
m $\beta$ -Actin	AAGTCCCTCACCTCCCAAAG AAGCAATGCTGTCACCTTCCC



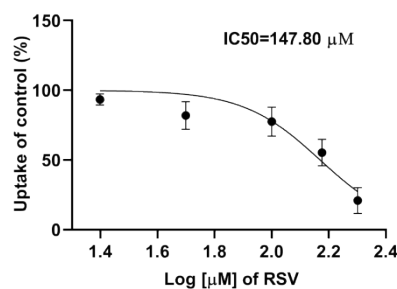
**Figure S1.** Relative mRNA expression of GLUT9 in the liver and kidney tissues of d-gal- induced aging mice. All values are mean  $\pm$  SD (n = 3). \*\*\*P < 0.001 compared with the control group.



**Figure S2.** Effect of RSV at 200  $\mu$ M on URAT1-mediated UA transport. BM (1  $\mu$ M) was used as the positive control. All values are mean  $\pm$  SD (n = 3). \*\*\*P < 0.001 compared with the control group.



**Figure S3.** Effect of RSV on the mRNA expression of URAT1 in d-gal-treated aging mice. All data are mean  $\pm$  SD (n = 2-4). ###P < 0.01, compared with the NC group; \*P < 0.05 compared with the MC group.



**Figure S4.** Effect of RSV (32.5-200  $\mu$ M) on OAT1-mediated 6-carboxyfluorescein (6-

CF, 100  $\mu$ M) uptake in OAT1-expressing HEK-293T cells. All values are mean  $\pm$  SD (n = 5).