

## Supplementary Information

### **Myrica rubra ameliorated hypertension via inhabiting GLUT 1 and activating NO/Akt/eNOS signalling pathway**

Jing Lia#, Huiling Wanga#, Jian Lia, Yonggang Liua, Hong Ding\*

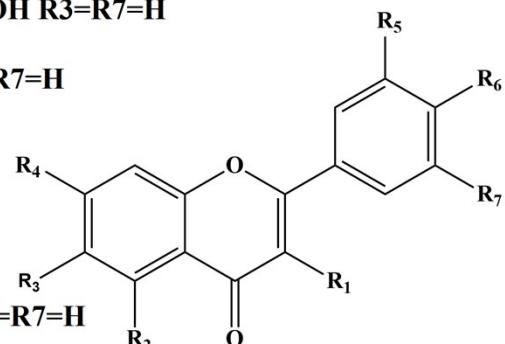
<sup>1</sup>Key Laboratory of Combinatorial Biosynthesis and Drug Discovery, Ministry of Education, Wuhan University School of Pharmaceutical Sciences, Wuhan, 430071, China

<sup>2</sup>Department of cell biology, Harvard Medical School. Boston, MA 02115, USA.

\*Correspondence and requests for materials should be addressed to (Tel: +8613007162084; E-mail: dinghong1106@whu.edu.cn) or S.Y.Y. (Tel: +18572254274; email: shanye\_yin@hms.harvard.edu)

**Fig. S1. Chemical structures of main components identified in the extract of Myrica rubra.**

- 1.R1=O-arabinopyranoside R2=R4=R5=R6=OH R3=R7=H
- 2.R1=O-gal R2=R4=R5=R6=OH R3=R7=H
- 3.R1=O-glu-(6)-rha R2=R4=R5=R6=OH R3=R7=H
- 4.R1=R2=R4=R5=R6=OH R3=R7=H



- 5.R1=O-glu-(2,6)-rha R2=R4=R5=R6=OH R3=R7=H
- 6.R2=O-gal R1=R4=R5=R6=OH R3=R7=H

- 7.R1=O-glu R2=R4=R5=R6=OH R3=R7=H

- 8.R1=O-glucuronide R2=R4=R5=R6=OH R3=R7=H

- 9.R1=O-rha-(6)-glu R2=R4=R5=R6=OH R3=R7=H

- 10.R1=O-rha-(2)-glu R2=R4=R5=R6=OH R3=R7=H

- 12.R3=H R1=R2=R4=R5=R6=R7=OH

- 13.R1=O-gal R2=R4=R5=R7=OH R3=R6=H

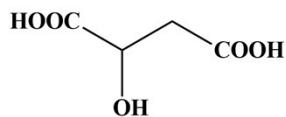
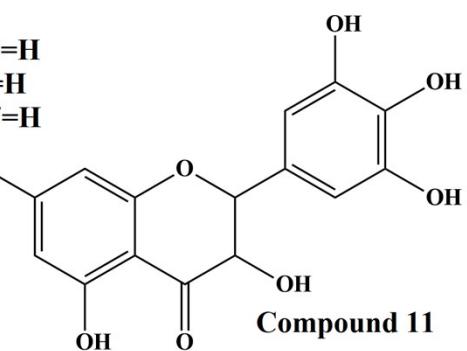
- 14.R1=R2=R4=R5=R7=OH R3=R6=H

- 15.R1=R2=R4=R6=OH R3=R7=H R5=OCH<sub>3</sub>

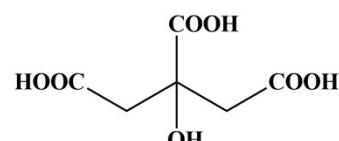
- 16.R1=R3=R5=R7=H R2=R6=OH R4=O-rha

- 17.R1=R5=H R2=R6=R7=OH R3=R4=OCH<sub>3</sub>

- 18.R1=R3=R7=H R2=R4=R5=R6=OH



Compound 19



Compound 20

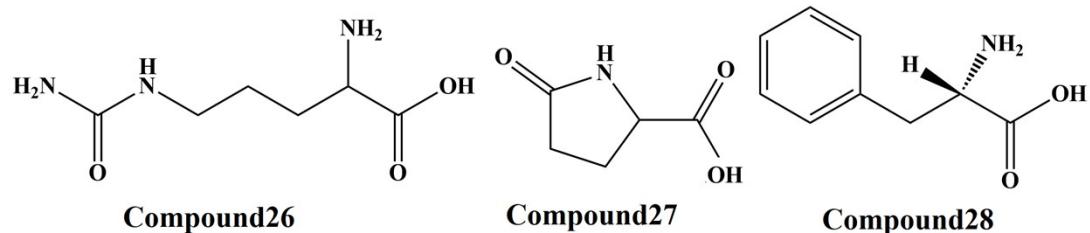
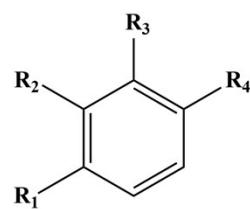
- 21.R1=R2=H R3=OH R4=COOH

- 22.R1=R3=OH R2=H R4=OH

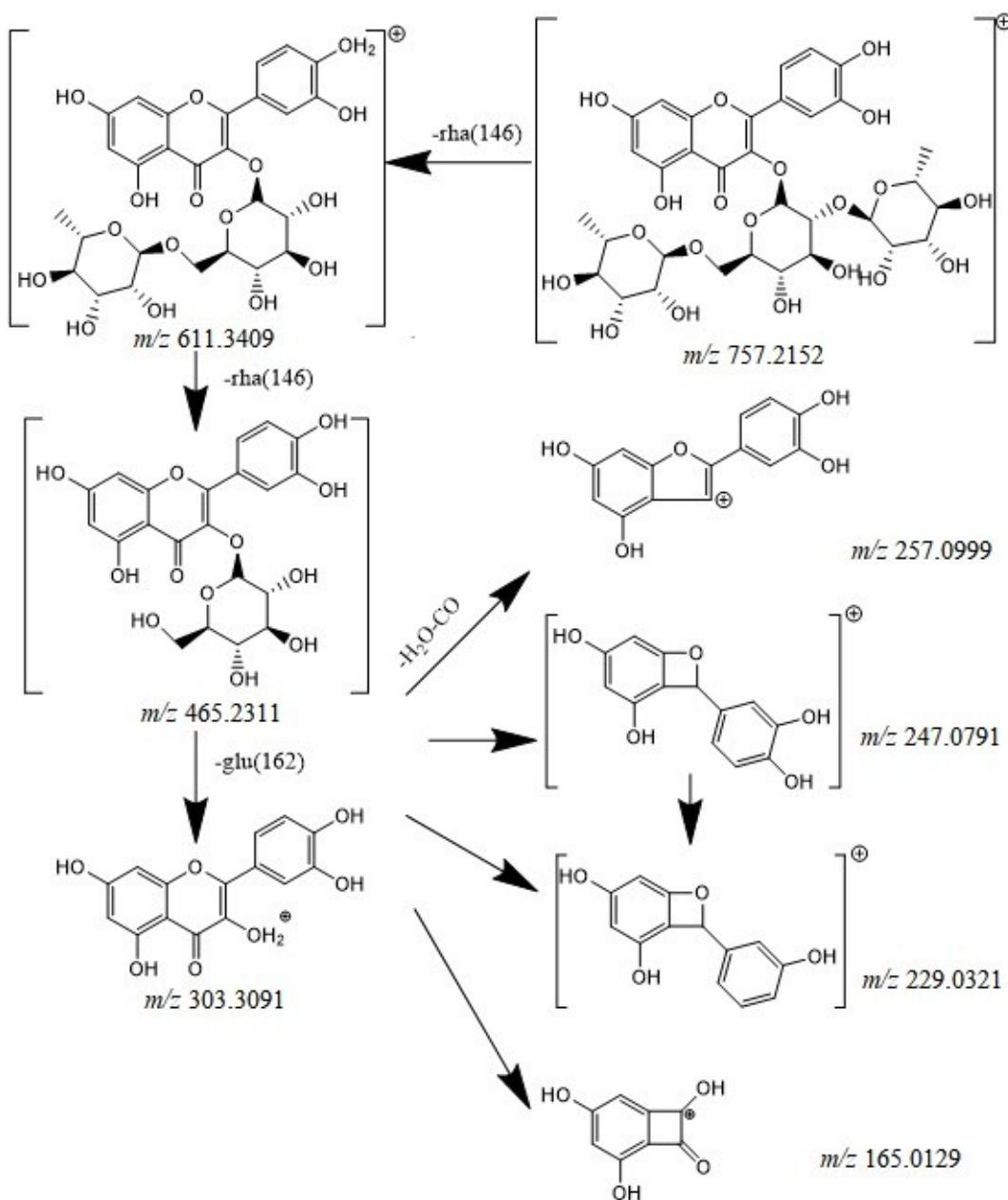
- 23.R1=R2=OH R3=H R4=COOH

- 24.R1=R2=OH R3=H R4=CHCH<sub>2</sub>COOH

- 25.R1=OH R2=OCH<sub>3</sub> R3=H R4=CHCH<sub>2</sub>COOH



**Fig. S2 Proposed fragmentation patterns pathway of quercetin-3-O-2', 6'-**



**Fig. S3** The cellular viability of H<sub>2</sub>O<sub>2</sub>-induced HUVECs injury with compounds 1, 3, 4, 7, 8, 9, 11, 12, 19, 21, 23, 27 at different concentrations.

No.	Survival(0.02 mg/ml)	Survival(0.2 mg/ml)	Survival(2 mg/ml)	Survival(20 mg/ml)
1	42.71	53.74	64.56	72.61
3	56.36	72.80	89.52	93.69
4	61.43	80.74	91.29	94.13
7	47.57	59.77	57.47	61.69
8	32.57	41.08	44.95	46.46
9	46.37	58.18	73.91	80.52
11	59.32	78.84	88.21	90.74
12	64.35	77.18	93.73	95.77
19	19.71	21.61	21.55	22.11
21	23.17	22.80	23.80	19.46
23	42.15	65.58	78.92	86.29
27	40.68	58.18	83.69	89.68