

## Supplementary data

### Effects of kudzu leaf extract and robinin on NF- $\kappa$ B transcriptional activity

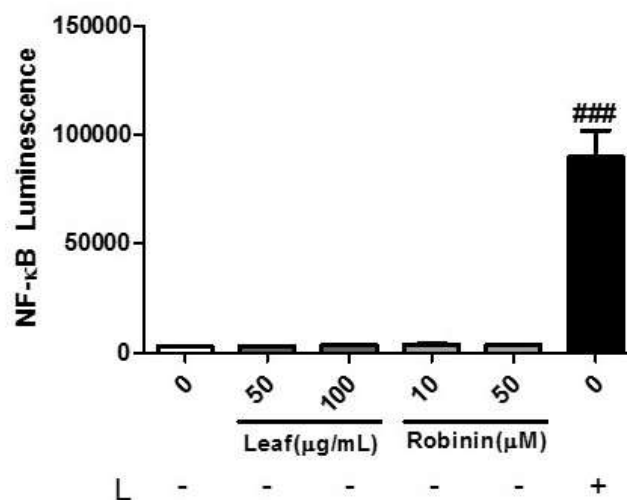
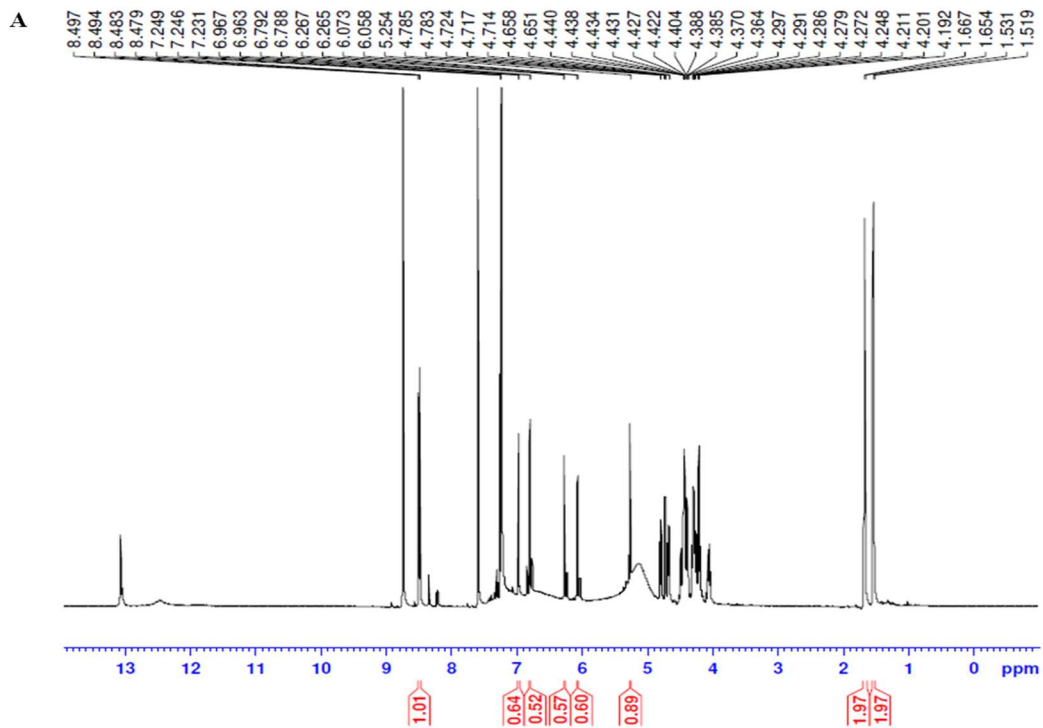


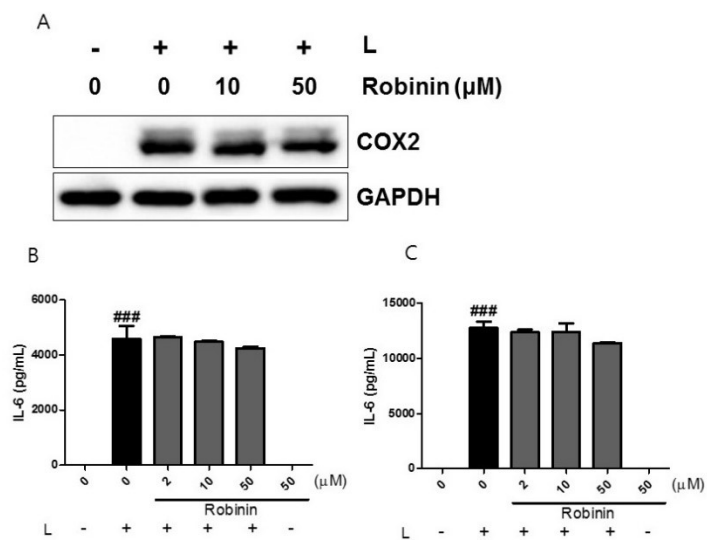
Figure S1. Effects of kudzu leaf extract and robinin on NF- $\kappa$ B transcriptional activity. RAW264.7 cells were transfected with an NF- $\kappa$ B-dependent reporter gene. Cells were pretreated with kudzu leaf extract or robinin for 2 h and then stimulated with LPS for 6 h. Luciferase activity was measured using the Dual-Glo<sup>®</sup> luciferase assay system (n=3). ###  $P < 0.005$  vs. control (-L).

### Identification of an isolated compound by $^1\text{H-NMR}$ and $^{13}\text{C-NMR}$

$^1\text{H}$  and  $^{13}\text{C}$  NMRs (JNM-LA 400, FT-NMR, JEOL, Japan) were conducted using a deuterated methanol solvent (Sigma-aldrich Co., USA) for identifying the structure of the isolated compound. Five milligrams of the isolated compound was dissolved into 1 mL of a deuterated methanol and run NMR processes.



**Figure S2.**  $^1\text{H}$ -NMR and  $^{13}\text{C}$ -NMR chromatograms of robinin. A:  $^1\text{H}$ -NMR, B:  $^{13}\text{C}$ -NMR



**Figure S3.** Effect of robinin on COX-2 and IL-6 in mouse peritoneal macrophages. A: Cells were stimulated with LPS (L) in the presence of robinin for 24 h. The level of COX-2 protein was analyzed by Western blotting using GAPDH as an internal control. One of three independent experiments is shown. B-C: The levels of IL-6 at 6 h (B) and 24 h (C) in the supernatant was measured by ELISA (n=3). ###  $P < 0.005$  vs. control (-L).