

## SUPPROTING INFORMATION

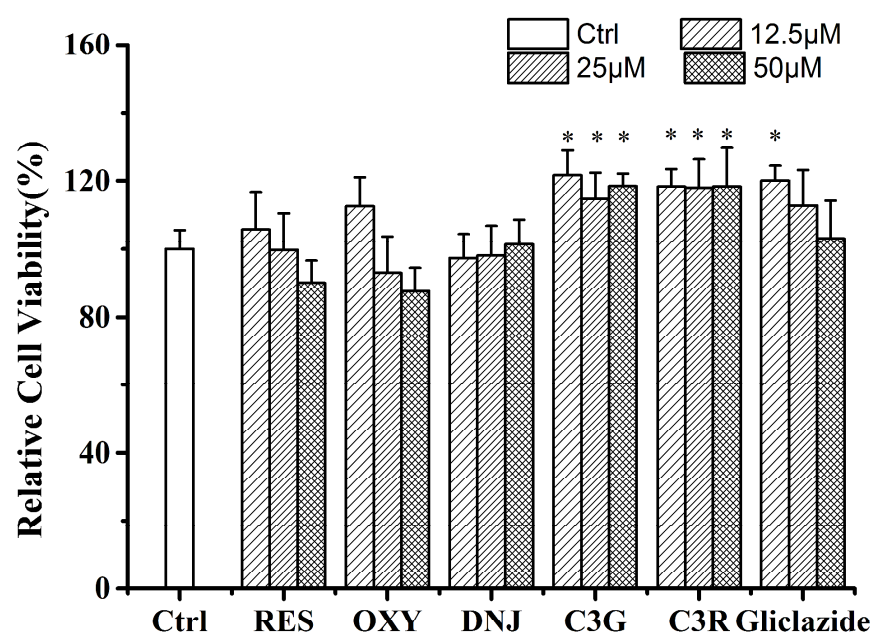
### FIGURE CAPTIONS

**Supplemental Figure S1. Effects of mulberry ingredients on normal MIN 6 cell viability.** MIN 6 cells were incubated with DNJ, RES, OXY, C3G, C3R and Gliclazide (12.5-50  $\mu$ M) for 24 h and the cell viability was monitored by MTT. Each value represented as percentage of control and mean  $\pm$  SD of triplicate experiments.

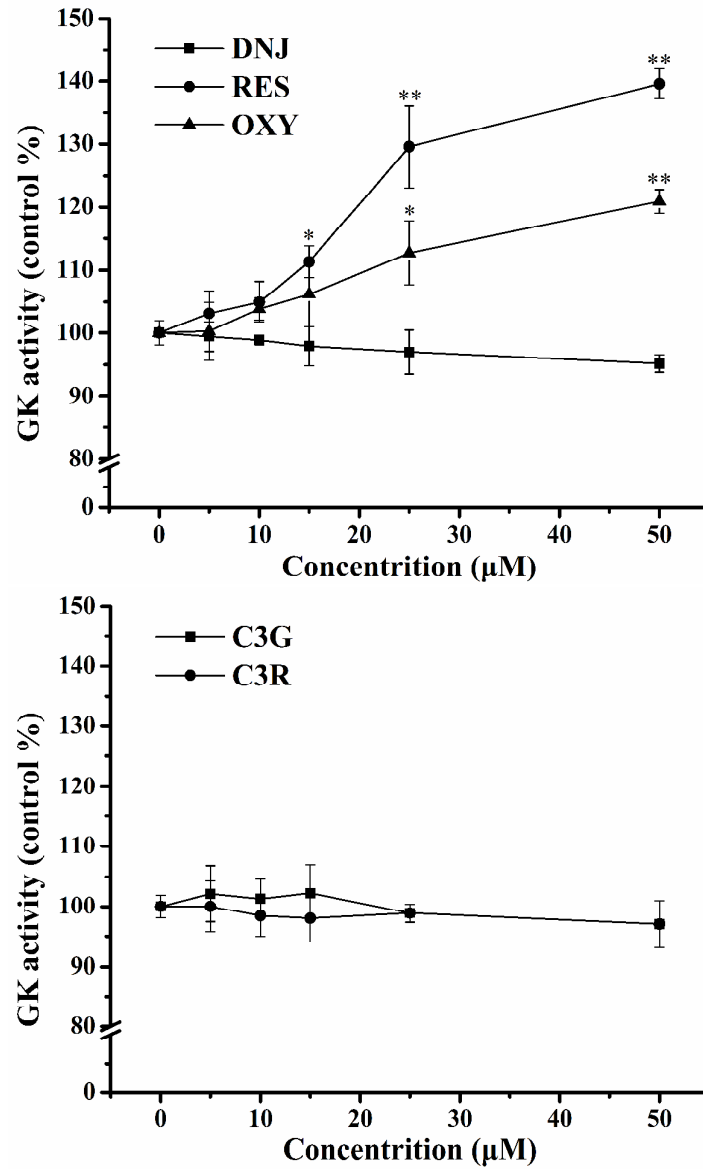
**Supplemental Figure S2. Effects of mulberry ingredients on GK activities in vitro.** Mulberry ingredients at different concentrations were incubated with the GK enzymes for 15 min before assay. Each value represented as percentage of control and mean  $\pm$  SD of triplicate experiments. These results had been published in our previous paper “Multiple comparisons of glucokinase activation mechanisms of five Mulberry bioactive ingredients in hepatocyte, J. Agric. Food Chem. 2016, 64, 2475-2484”.

**Supplemental Figure S3. Effects of mulberry ingredients on the morphology of MIN 6 cells.** MIN 6 cells were incubated with DNJ, RES, OXY, C3G, C3R and Gliclazide (12.5-50  $\mu$ M) for 24 h, H<sub>2</sub>O<sub>2</sub> (250  $\mu$ M) for 1h and then photos were token using 3.0M Digital Camera at the amplification times of 100.

Supplemental Figure S1.



Supplemental Figure S2.



Supplemental Figure S3.

