## Supplementary data to:

## Ultrasound-assisted enzymatic extraction of Corni Fructus alpha-

## glucosidase inhibitors improve insulin-resistant in HepG2 cells

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**Supplementary Fig. 1.** Molecular structure used in this study. 1, Cornuside; 2, gallic acid; 3, 5-hydroxymethyl-2-furaldehyde; 4, loganin; 5, morroniside; 6, protocatechuic acid; 7, sweroside.



**Supplementary Fig. 2.** Three-dimensional response surface representations for GICF. (A) various extraction time and compound enzyme dosage, (B) various extraction time and pH, (C) various compound enzyme dosage and pH, (D) various extraction temperature and pH.

Supplementary Table 1. Alpha-glucosidase inhibition by 7 compounds.

Compounds	IC <sub>50</sub> (mM/L)	Compounds	IC <sub>50</sub> (mM/L)
Gallic acid	$1.34 \pm 0.09$	Sweroside	$0.35 \pm 0.04$
5-Hydroxymethyl-	$1.71 \pm 0.03$	Loganin	$0.89 \pm 0.04$
2-furaldehyde			
Protocatechuic acid	> 3.00	Cornuside	$0.37\pm0.07$
Morroniside	$1.28 \pm 0.07$		

Note: Values are expressed as means  $\pm$  SD for three repeated calibrations. IC<sub>50</sub>, half maximal inhibitory concentration.