

**Supporting information**

**Identification of yeast  $\alpha$ -glucosidase inhibitors from *Pueraria lobata* by ligand  
fishing based on magnetic mesoporous silicon combined with knock-out/knock-in  
technology**

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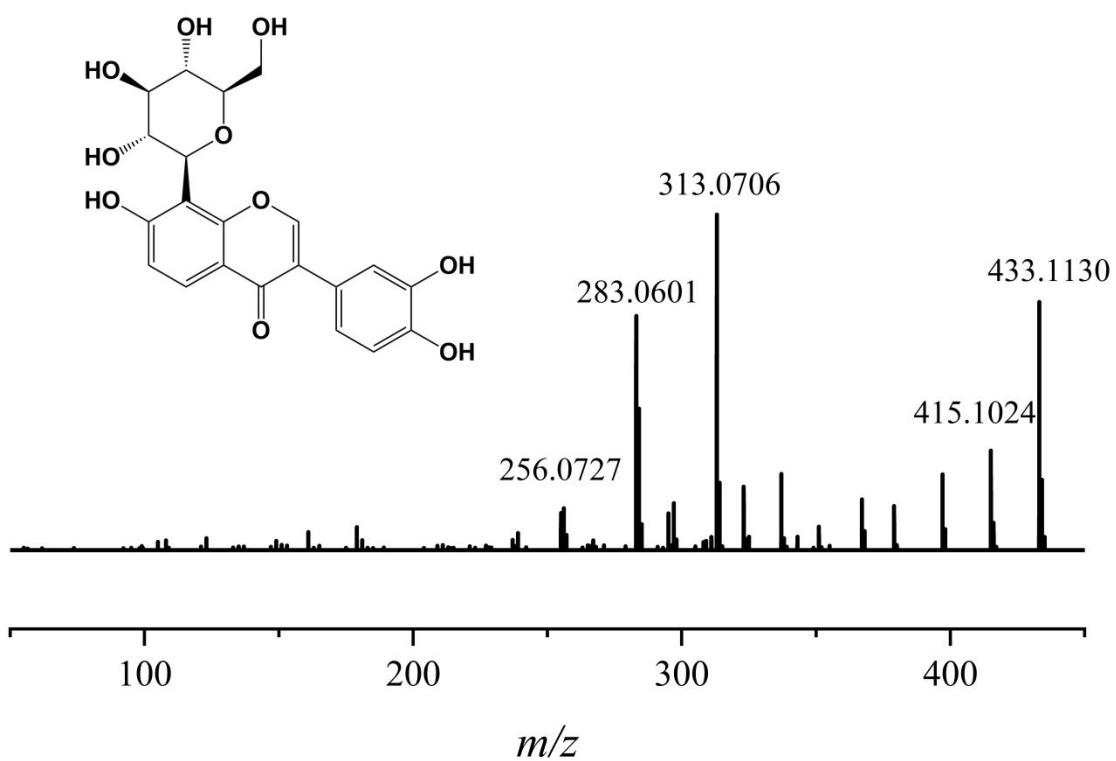
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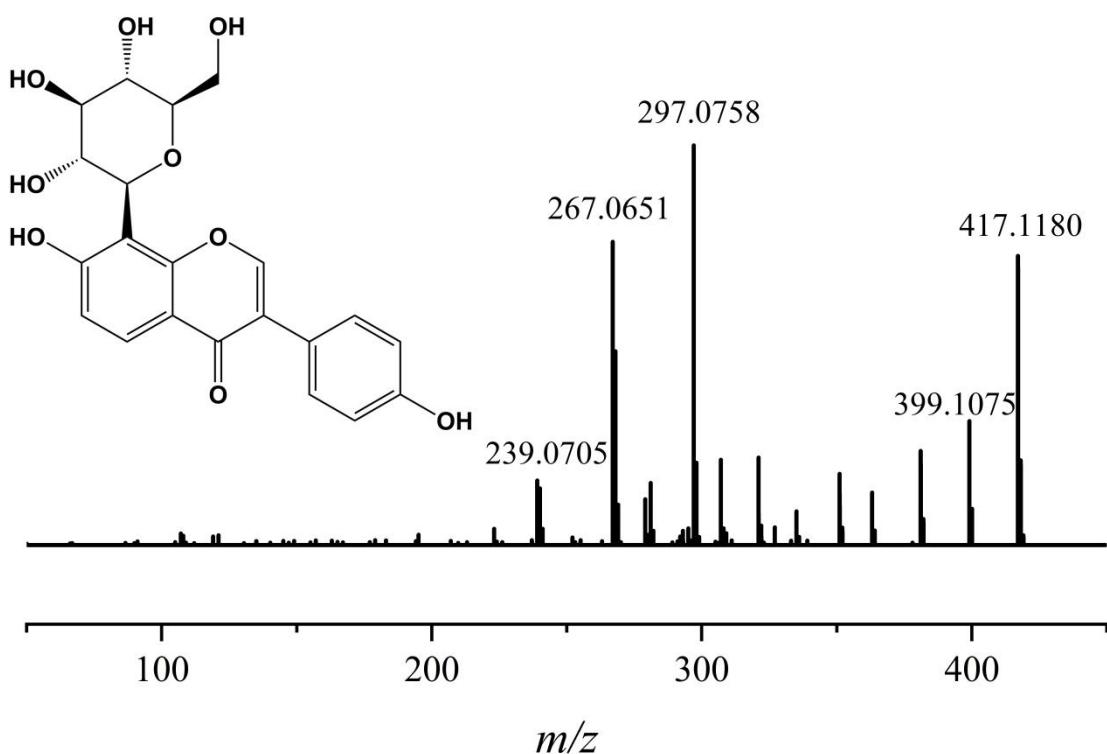
## Contents

<b>Fig. 1S.</b> Standard curve of Allura red (peak area-concentration) .....	3
<b>Fig. 2S.</b> Mass spectrometry of compound <b>1</b> .....	4
<b>Fig. 3S.</b> Mass spectrometry of compound <b>2</b> .....	5
<b>Fig. 4S.</b> Mass spectrometry of compound <b>3</b> .....	6
<b>Fig. 5S.</b> Mass spectrometry of compound <b>4</b> .....	7
<b>Fig. 6S.</b> Mass spectrometry of compound <b>5</b> .....	8
<b>Fig. 7S.</b> Mass spectrometry of compound <b>6</b> .....	9
<b>Fig. 8S.</b> Mass spectrometry of compound <b>7</b> .....	10
<b>Fig. 9S.</b> Mass spectrometry of compound <b>8</b> .....	11
<b>Fig. 10S.</b> Mass spectrometry of compound <b>9</b> .....	12
<b>Fig. 11S.</b> Mass spectrometry of compound <b>10</b> .....	13
<b>Table. 1S.</b> Molecular docking analysis of the 10 ligands with $\alpha$ -glucosidase.....	14

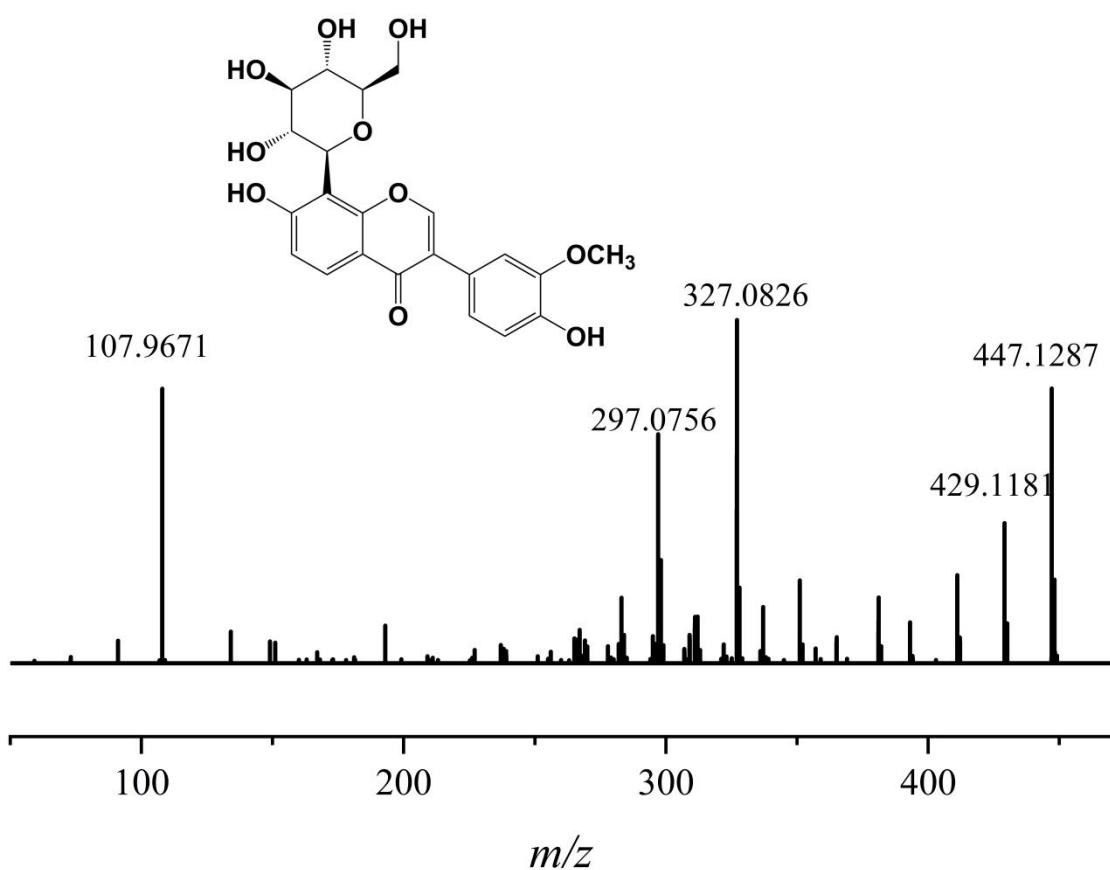
**Fig. 1S.** Standard curve of Allura red (peak area-concentration)



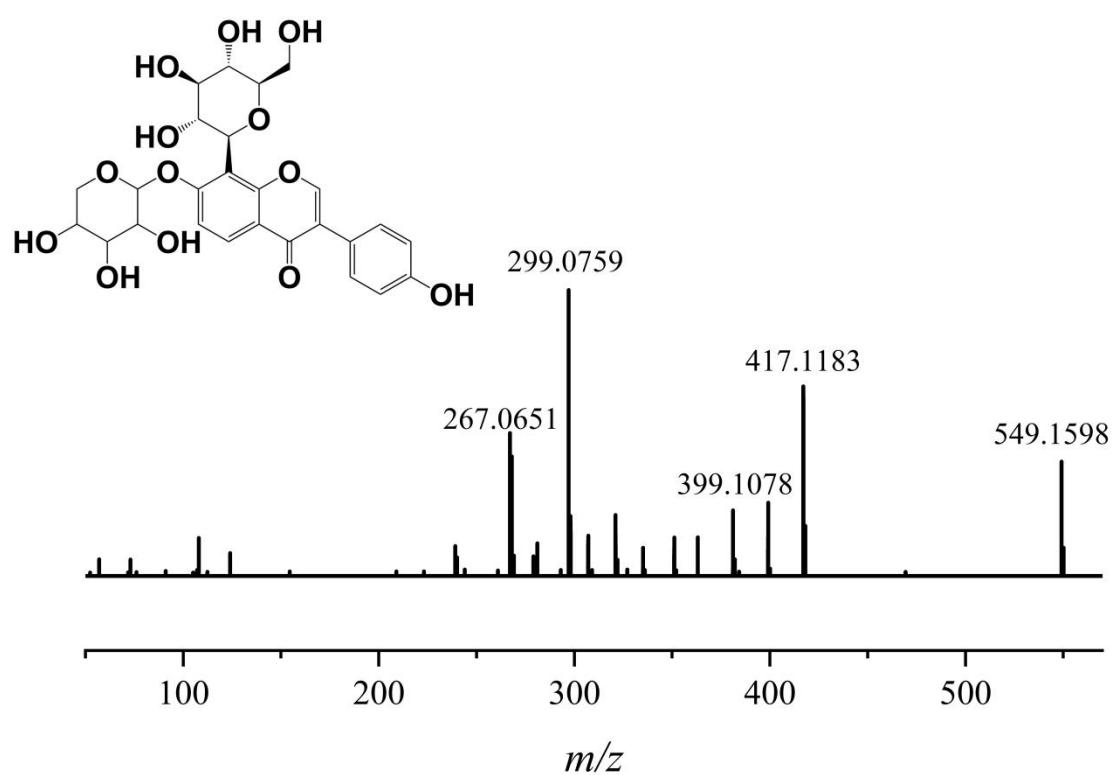
**Fig. 2S.** Mass spectrometry of compound 1



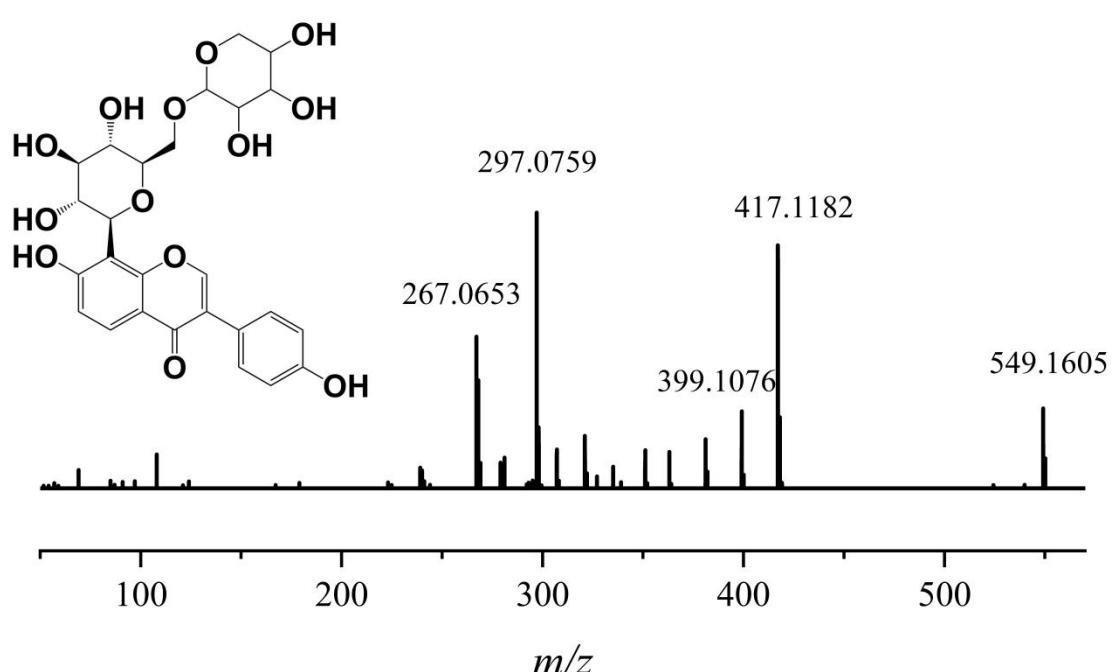
**Fig. 3S.** Mass spectrometry of compound 2



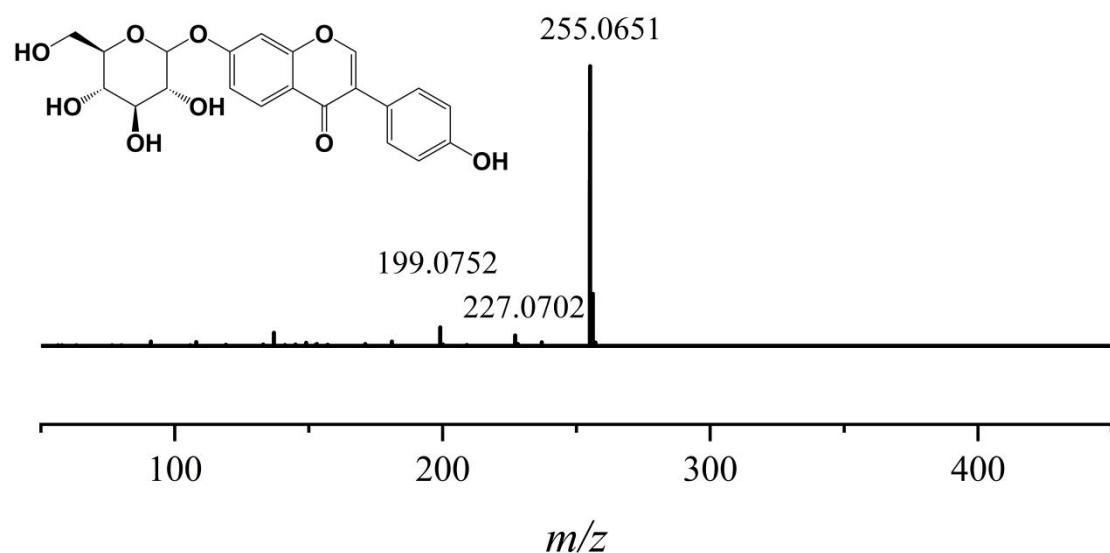
**Fig. 4S.** Mass spectrometry of compound 3



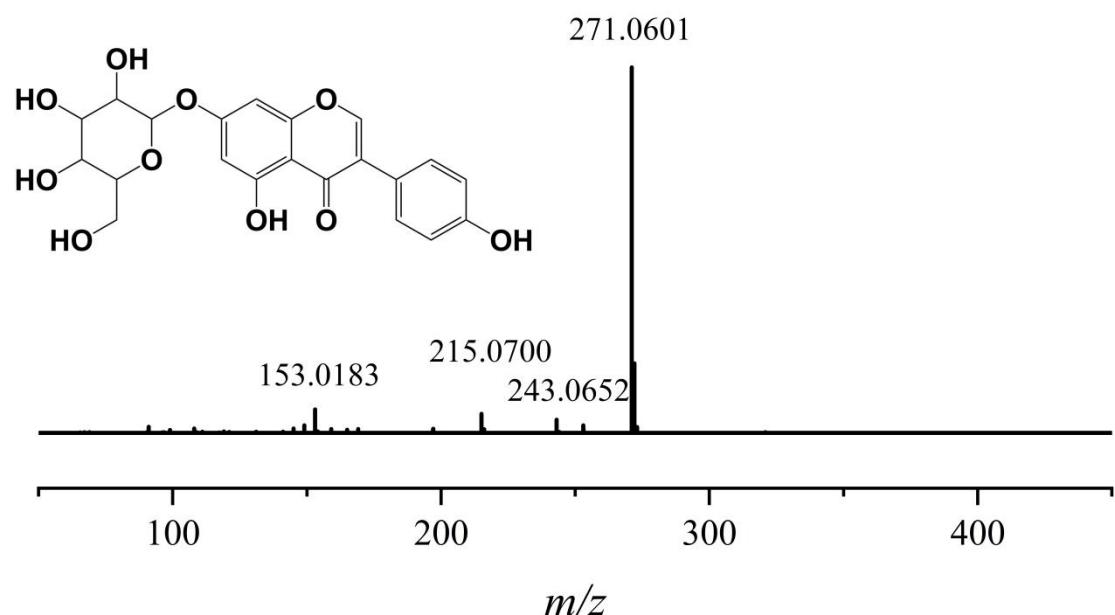
**Fig. 5S.** Mass spectrometry of compound 4



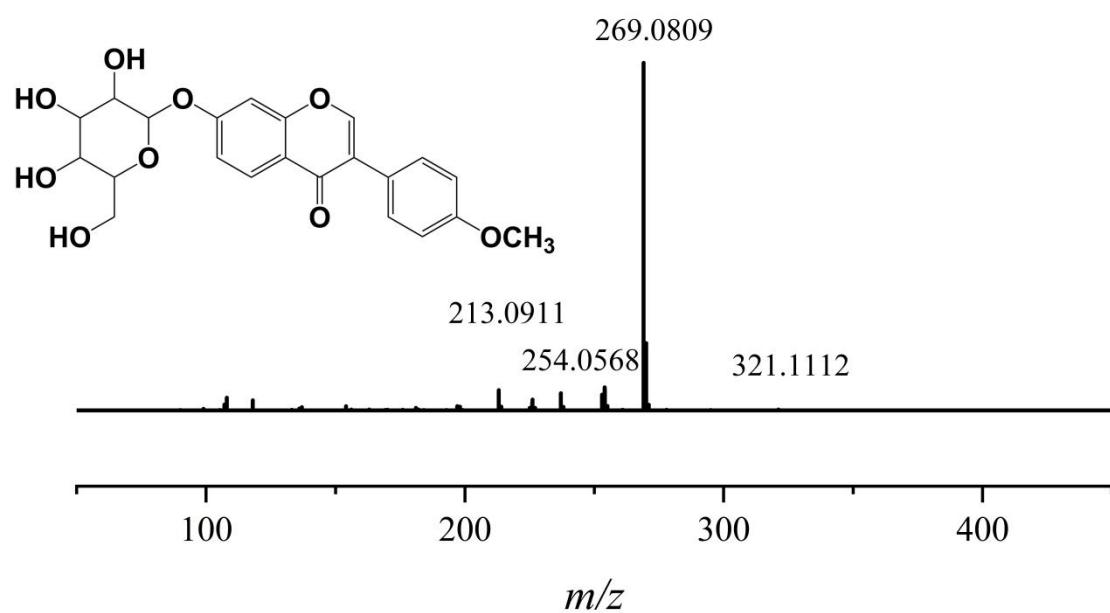
**Fig. 6S.** Mass spectrometry of compound 5



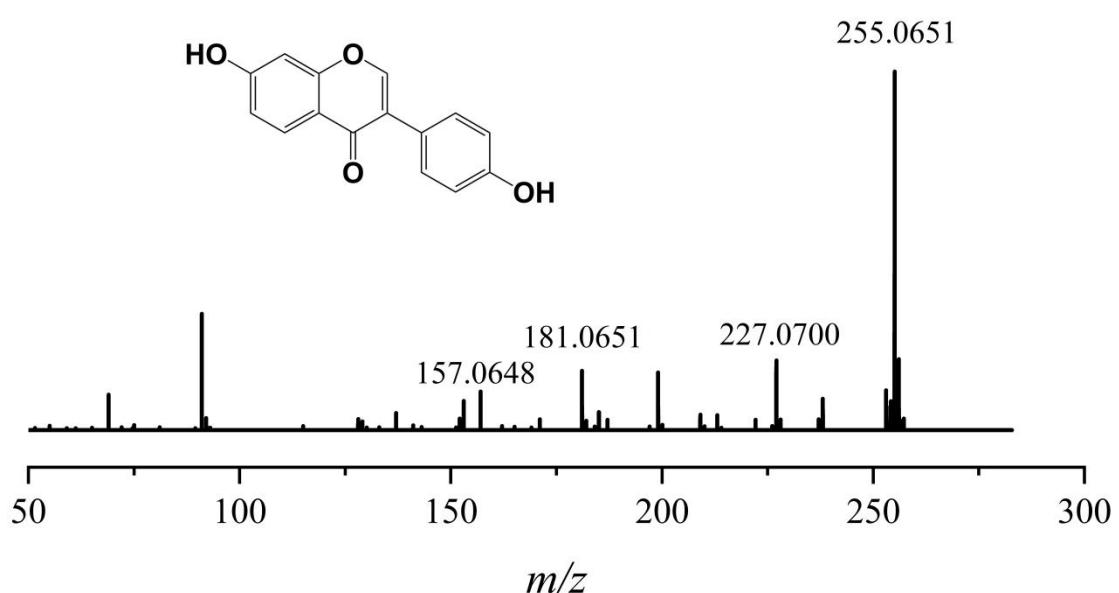
**Fig. 7S.** Mass spectrometry of compound 6



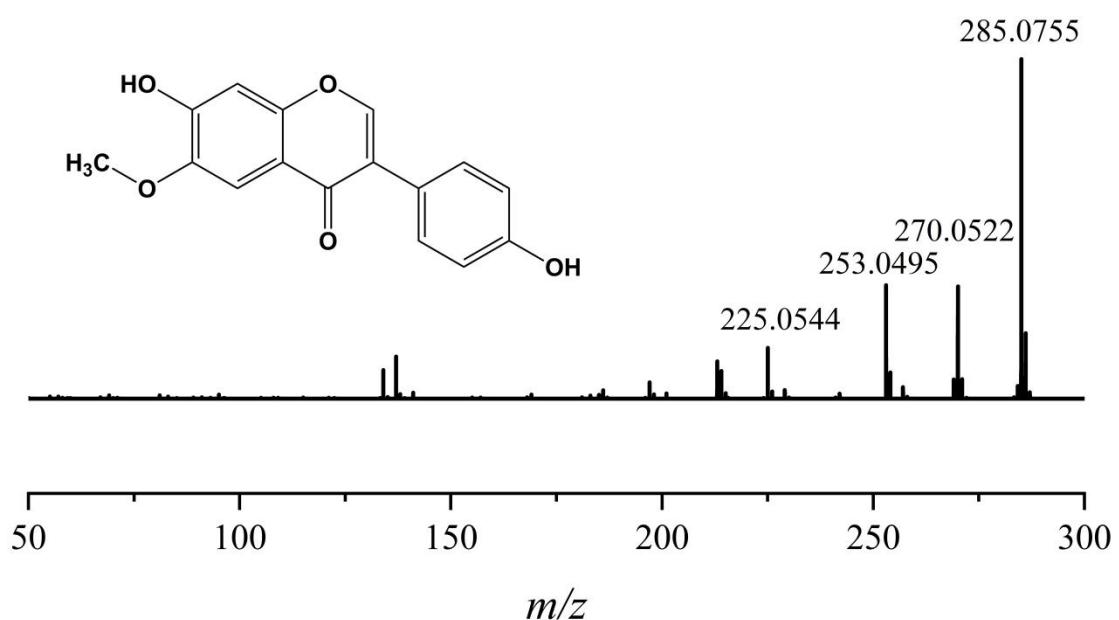
**Fig. 8S.** Mass spectrometry of compound 7



**Fig. 9S.** Mass spectrometry of compound 8



**Fig. 10S.** Mass spectrometry of compound 9



**Fig. 11S.** Mass spectrometry of compound **10**

**Table. 1S.** Molecular docking analysis of the 10 ligands with  $\alpha$ -glucosidase

Compound number	Total Score	Hydrogen bonding associated amino acid residues
1	5.3938	Asp307 Gln279 Tyr158 Asp352 Asp215 Asp213
2	5.8709	Asp307 Gln279 Ser241 Lys156 Glu411 Asr442
3	3.5659	Asp307 Ser311 Arg315 Lys156 Ser241 Asp242 His280 Glu277
4	4.5122	Asp307 Glu279 Asp215 Arg442
5	4.4246	Arg315 Ser241 Glu411 Arg442 Asp352 His112 Asp69
6	7.7858	Asp307 Arg442 Asp325 Gln279 Glu277
7	7.3186	Glu411 Pro312 Asp242 Gln279 Asp215
8	6.6854	Arg213 Glu277 Gln279 His351 Asp352 Arg442
9	5.3531	Asp307 Thr310 Arg315 Ser241 Lys156
10	5.4960	Asp307 Gln353 Arg442 Asp215