

# Supplementary Material: Fishing of $\alpha$ -glucosidase's ligands from *Aloe vera* by $\alpha$ -glucosidase functionalized magnetic nanoparticles

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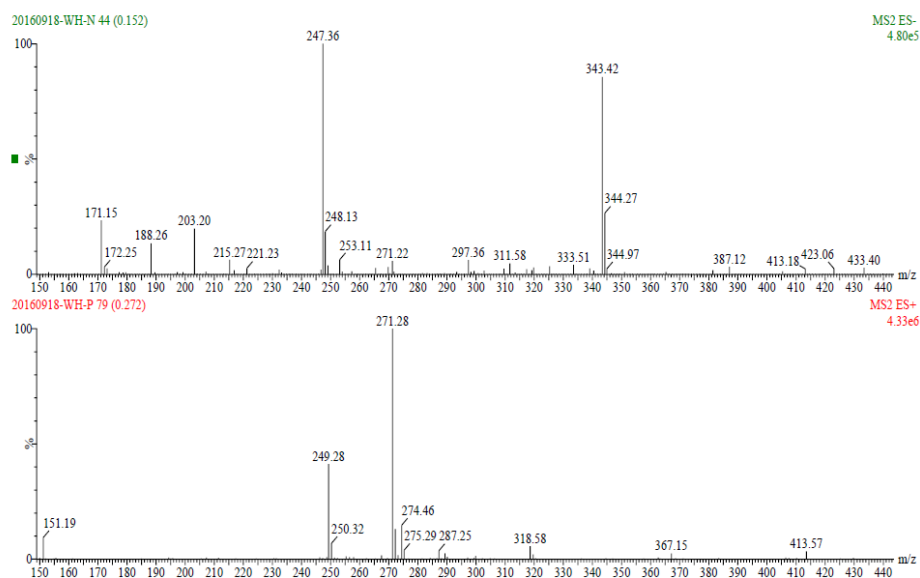


Figure S1. MS spectra of **1**.

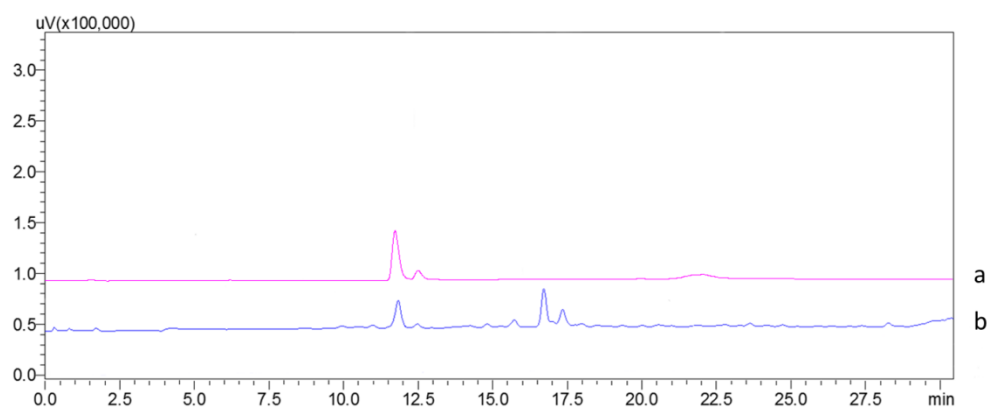


Figure S2. HPLC-UV analysis of (a) aloenin aglycone isolated from *Aloe vera*; (b) solution of ligands,  $S_5$ .

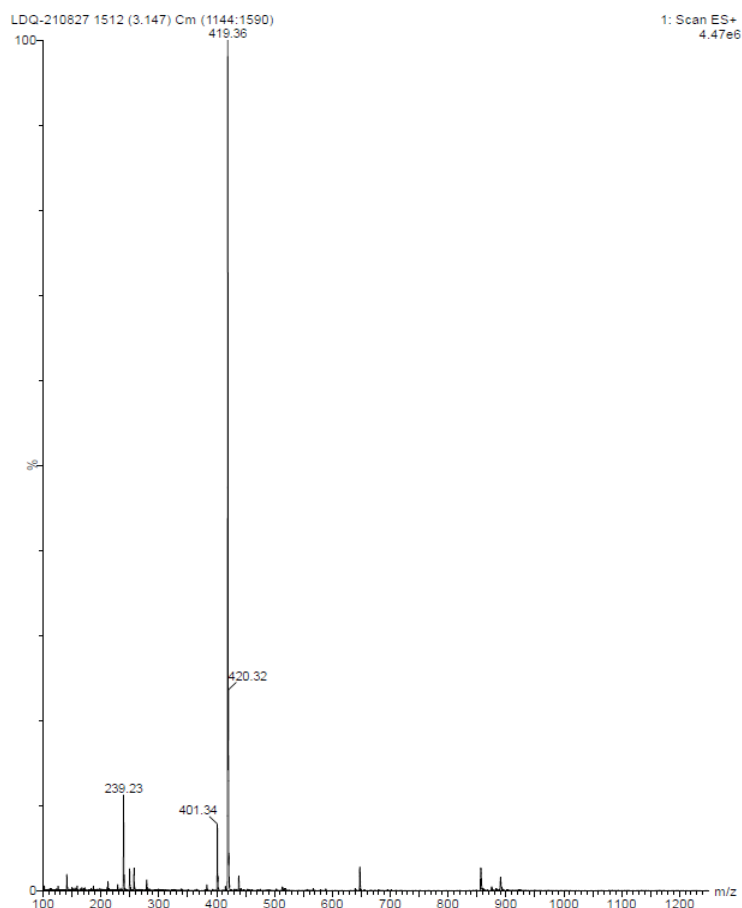


Figure S3. MS spectrum of **3**.

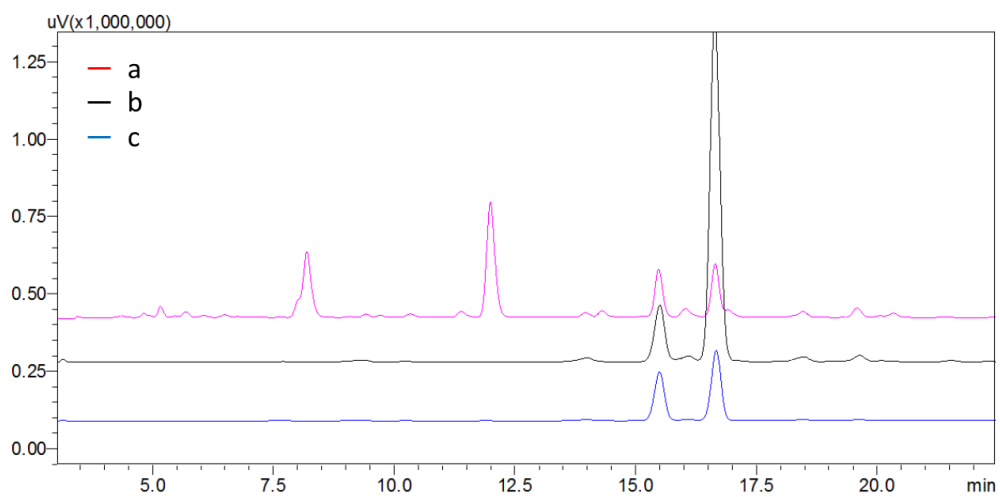


Figure S4. HPLC-UV analysis of (a) *Aloe vera* extract solution,  $S_0$ ; (b) aloin A isolated from *Aloe vera*; (c) reference substance of aloin.

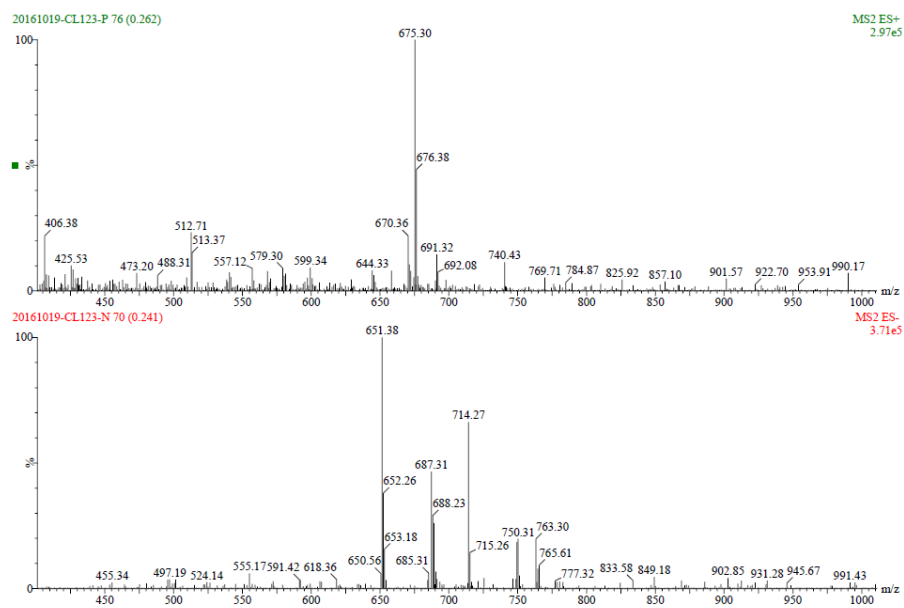


Figure S5. MS spectra of **2**.

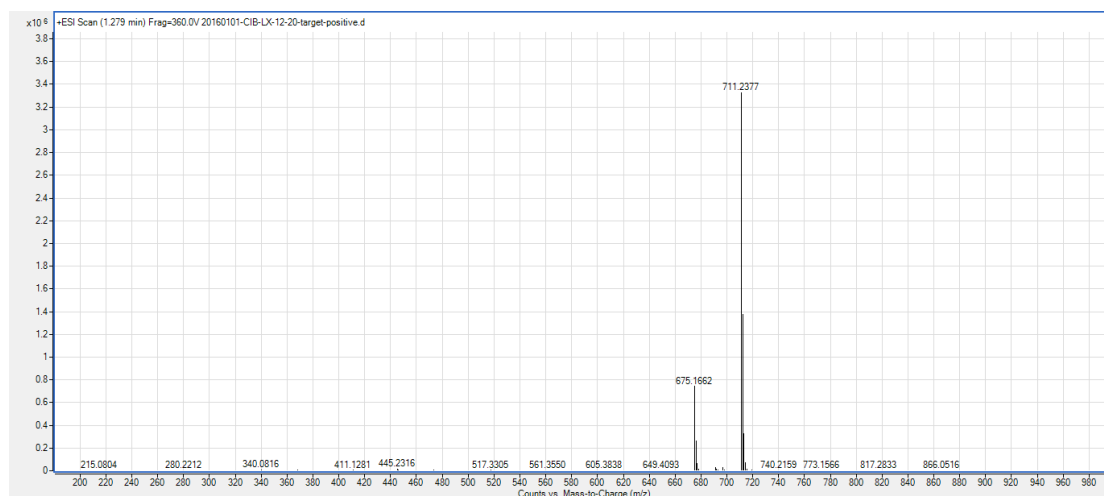


Figure S6. HRESIMS spectrum of **2** (positive ion mode).

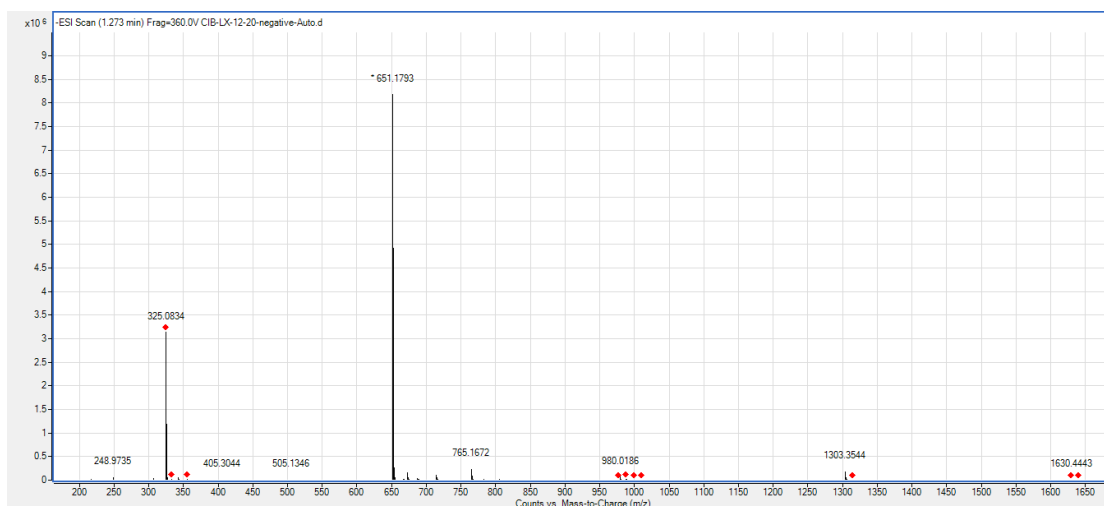


Figure S7. HRESIMS spectrum of **2** (negative ion mode).

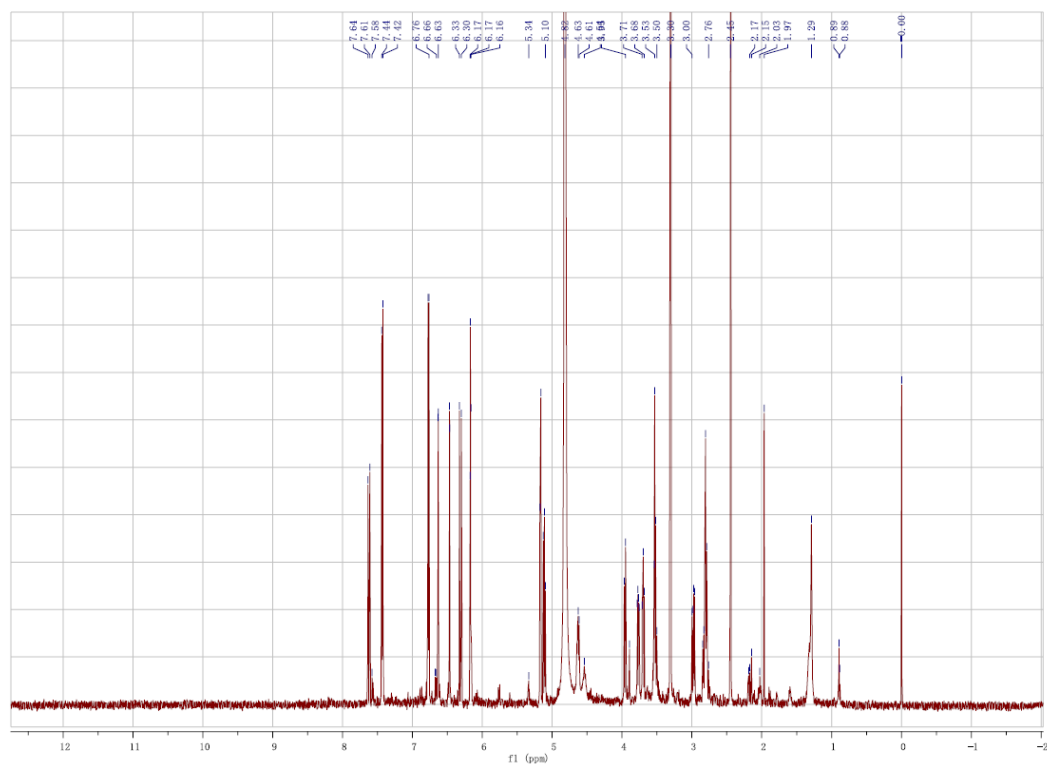


Figure S8.  $^1\text{H}$  NMR (600 Hz) spectrum of **2** in methanol- $d_4$ .



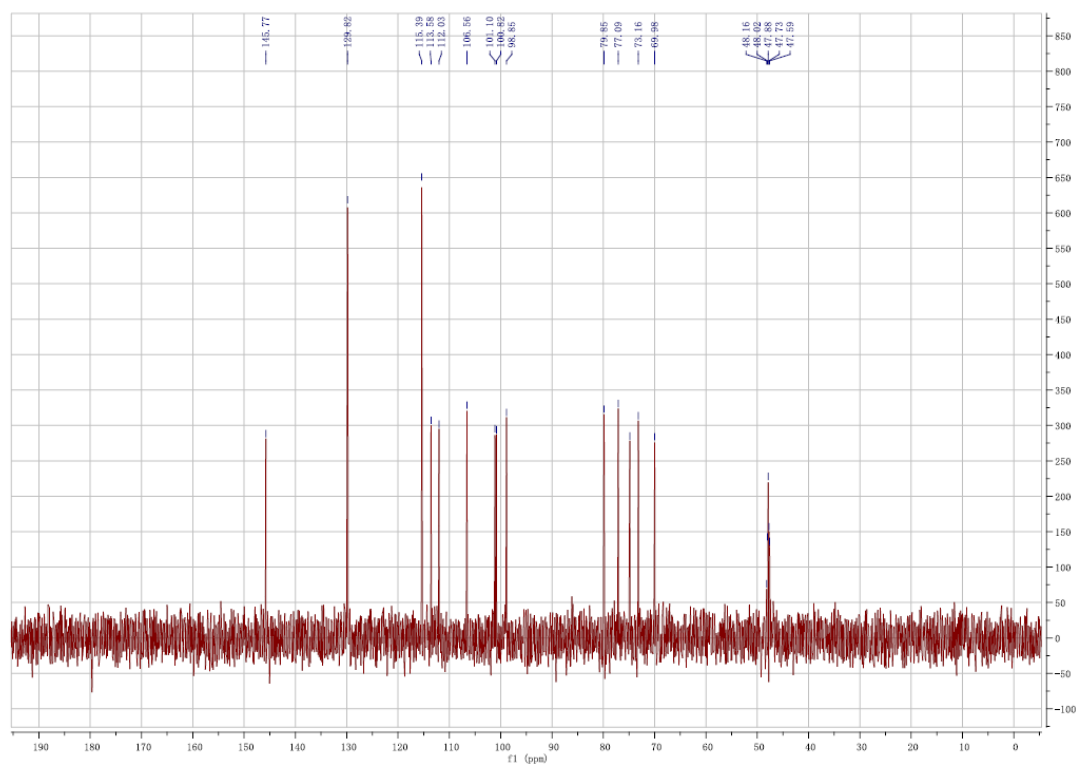


Figure S11. DEPT 90 ° spectrum of **2** in methanol- $d_4$ .

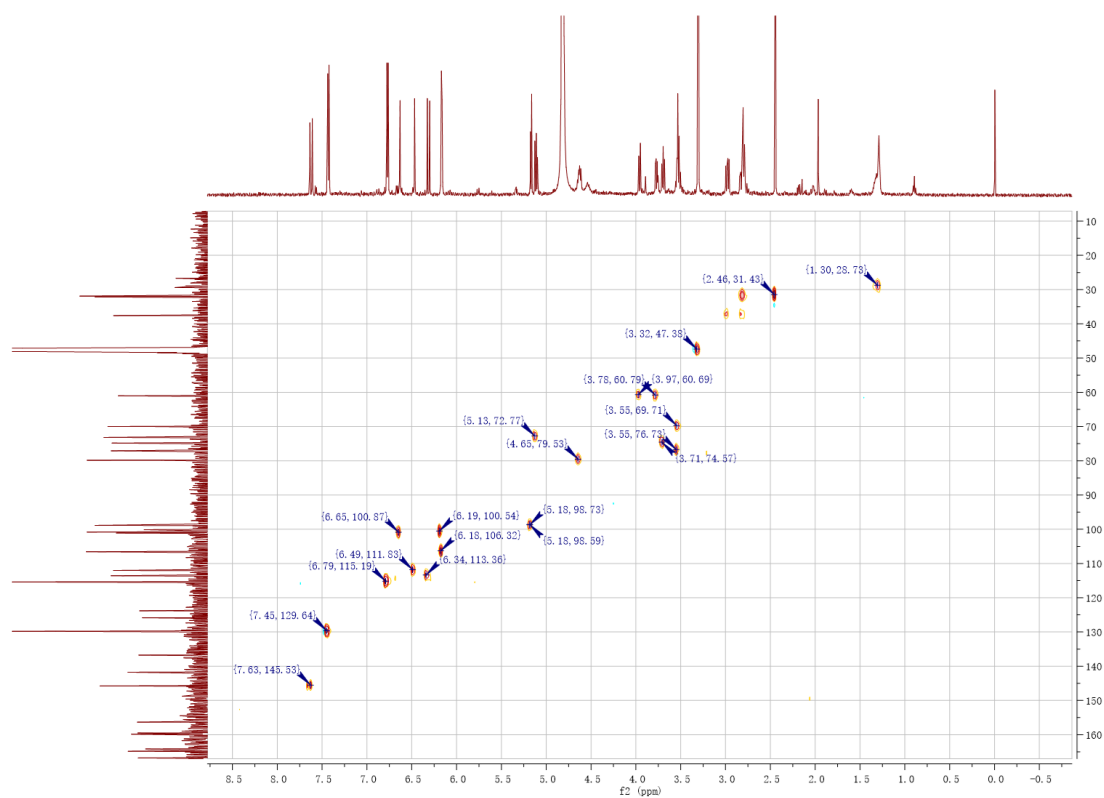


Figure S12. HSQC spectrum of **2** in methanol- $d_4$ .

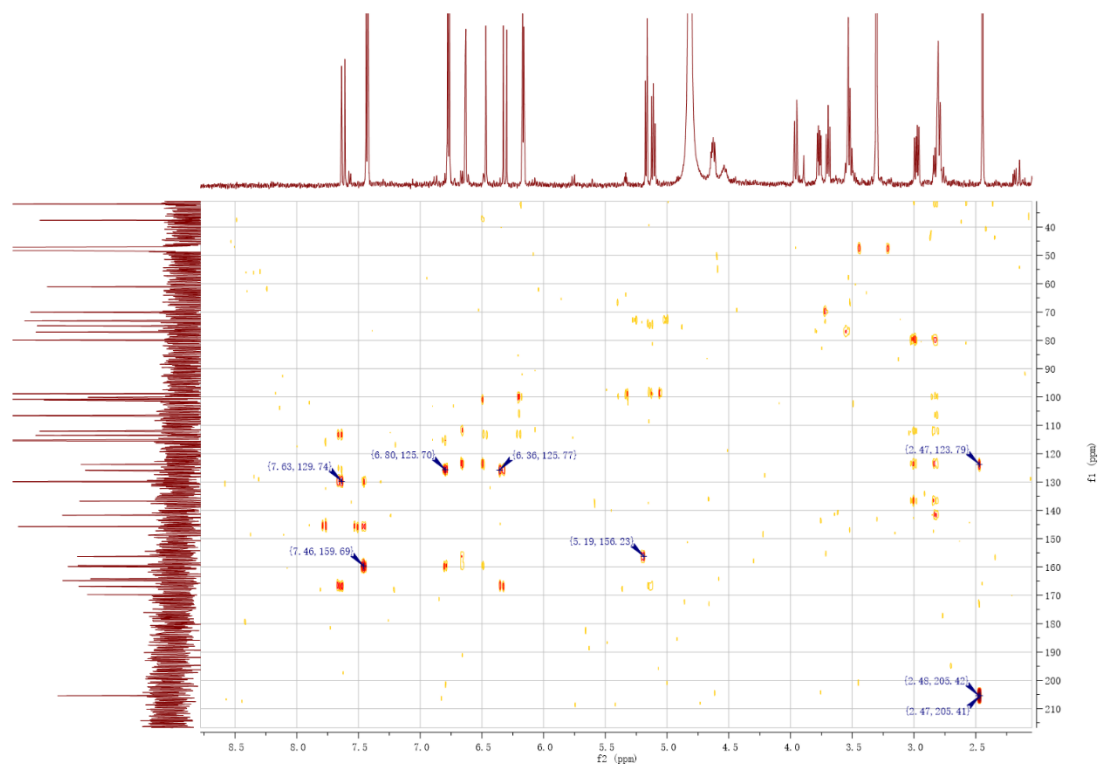


Figure S13. HMBC spectrum of **2** in methanol- $d_4$ .