

## Supporting Information

*Rec. Nat. Prod.* X:X (202X) XX-XX

### Secondary Metabolites with Tyrosinase and Acetylcholinesterase Inhibitory Activities from Leonuri Fructus

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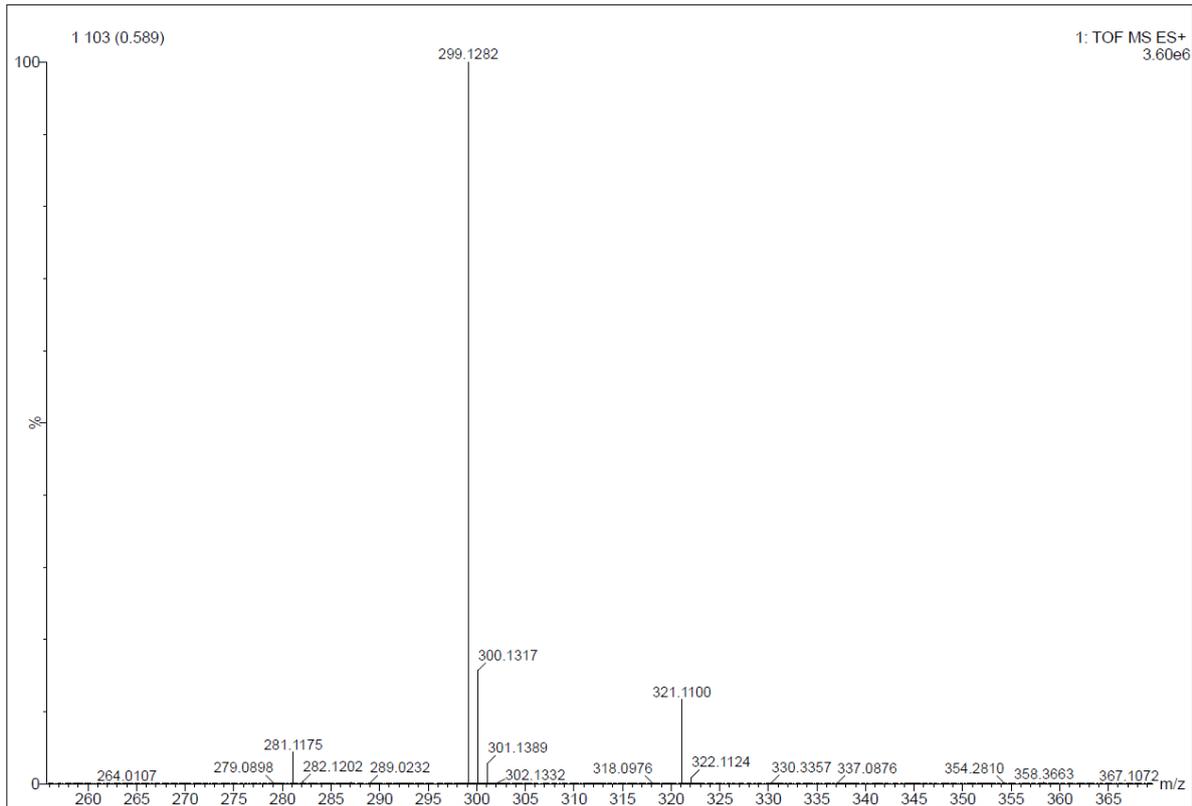
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**Elemental Composition Report**

**Single Mass Analysis**

Tolerance = 10.0 PPM / DBE: min = -1.5, max = 50.0

Element prediction: Off

Number of isotope peaks used for i-FIT = 3

Monoisotopic Mass, Even Electron Ions

13 formula(e) evaluated with 1 results within limits (up to 50 best isotopic matches for each mass)

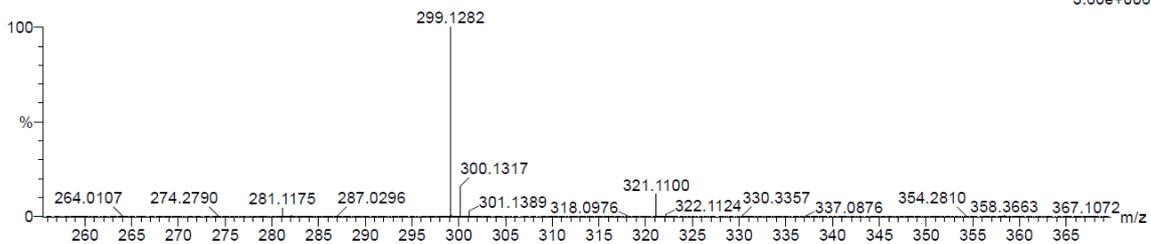
Elements Used:

C: 5-18 H: 5-80 O: 3-7

1 103 (0.589)

1: TOF MS ES+

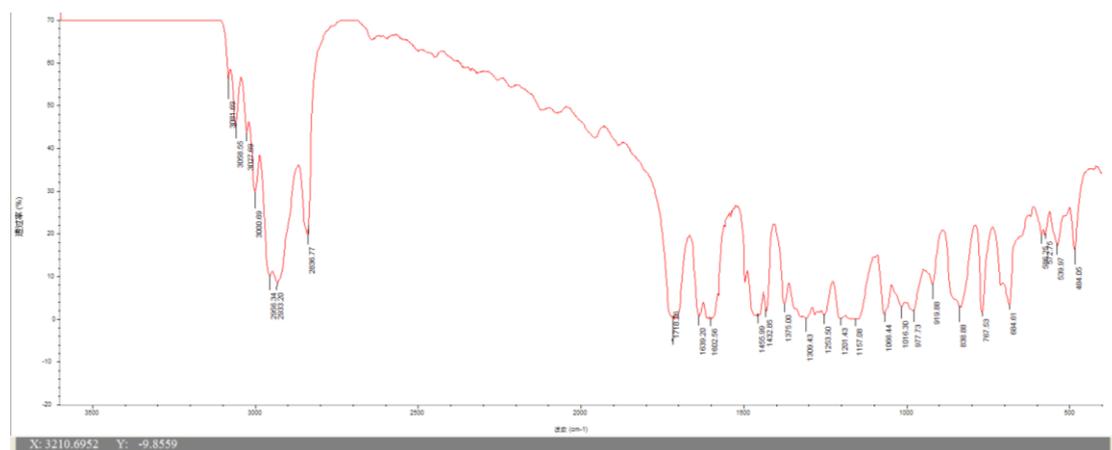
3.60e+006



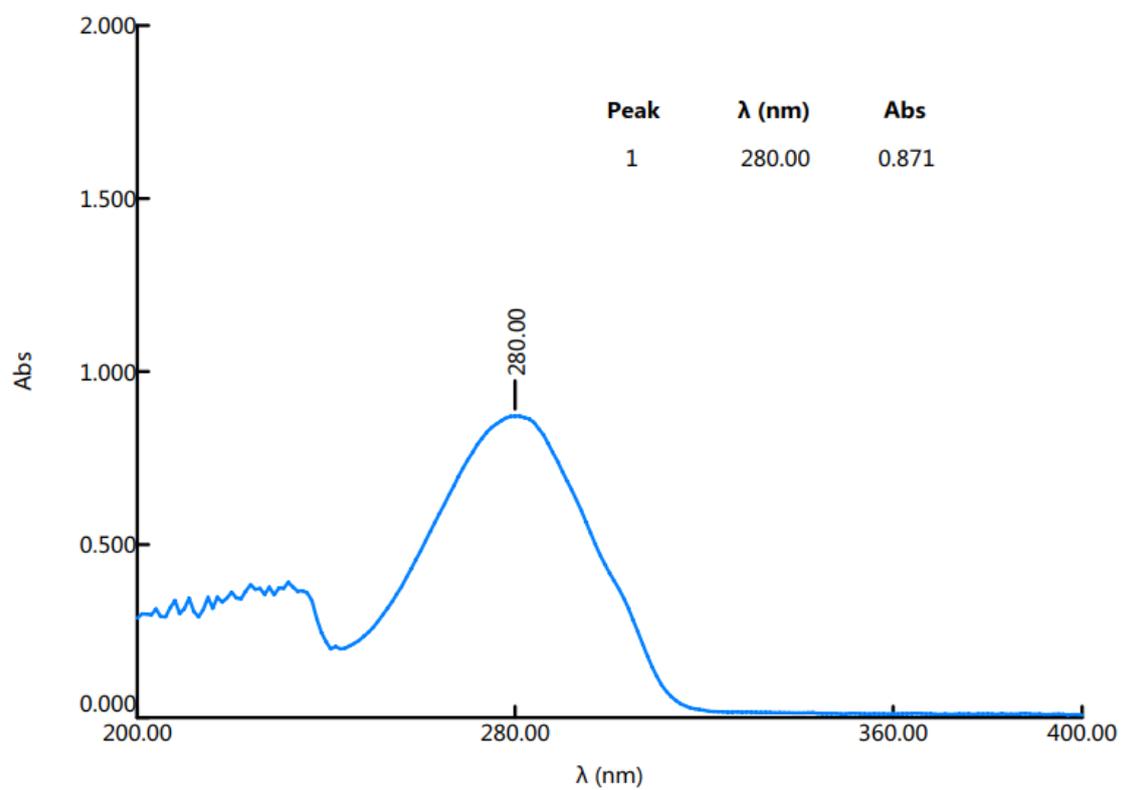
Minimum: -1.5  
Maximum: 5.0 10.0 50.0

Mass	Calc. Mass	mDa	PPM	DBE	i-FIT	Norm	Conf(%)	Formula
299.1282	299.1283	-0.1	-0.3	9.5	965.4	n/a	n/a	C18 H19 O4

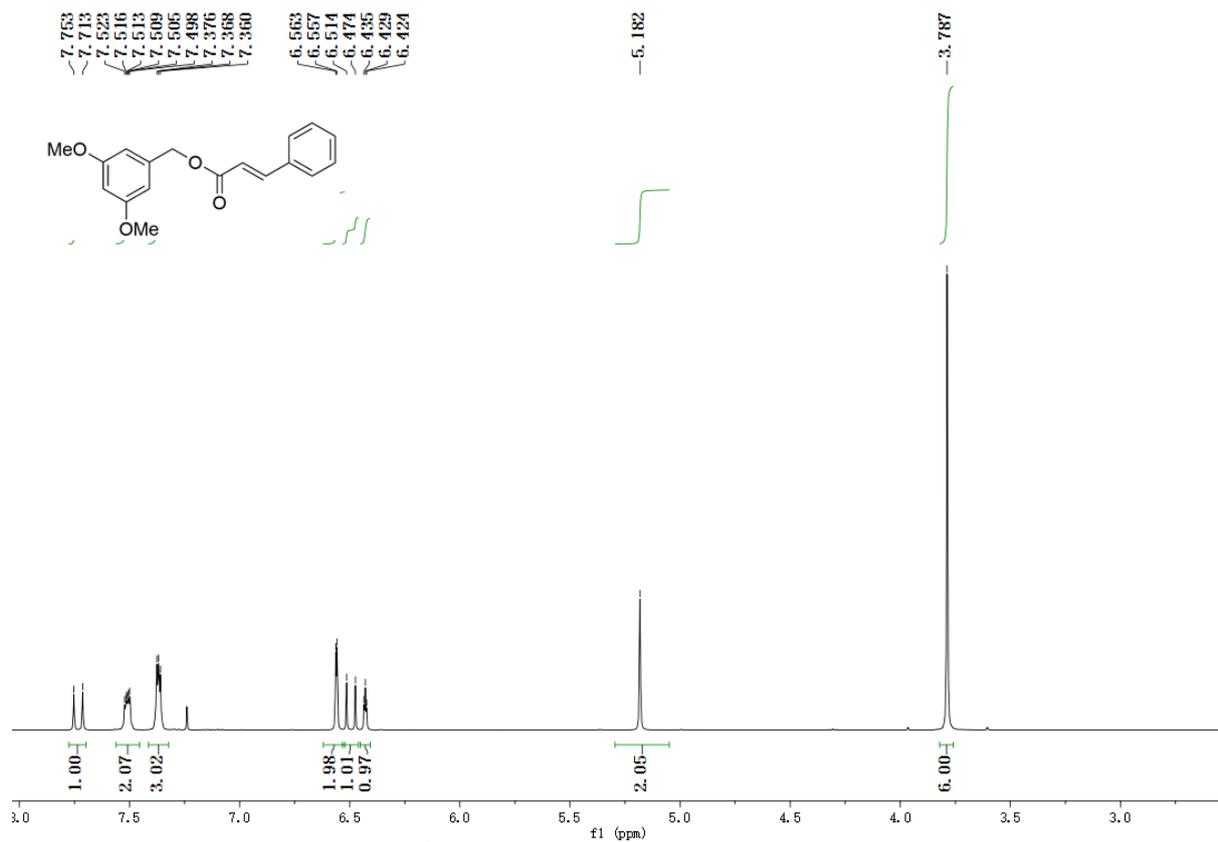
**Figure S1: HR-ESI-MS spectrum of 1**



**Figure S2:** IR spectrum of **1**



**Figure S3:** UV spectrum of **1** in CHCl<sub>3</sub>



**Figure S4:** <sup>1</sup>H NMR spectrum (400 MHz) of **1** in CDCl<sub>3</sub>

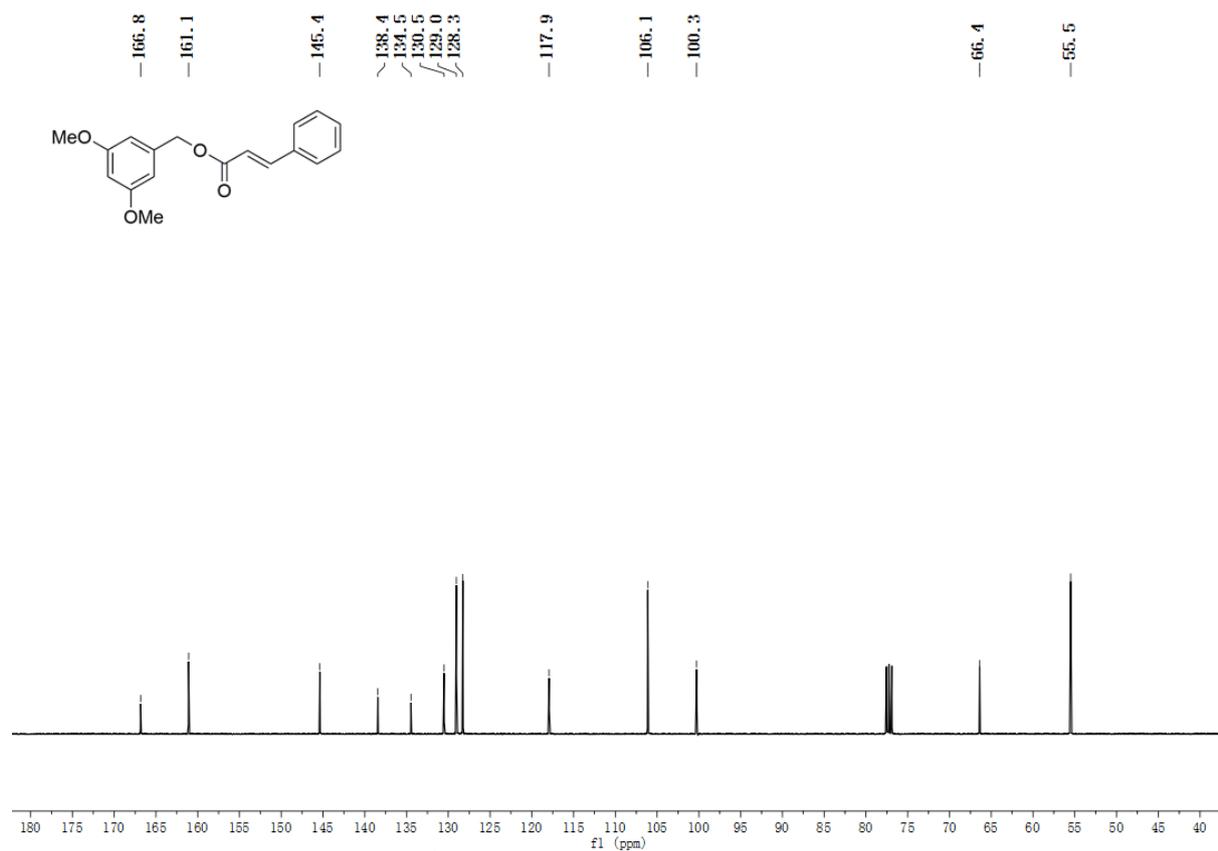


Figure S5:  $^{13}\text{C}$  NMR spectrum (100 MHz) of **1** in  $\text{CDCl}_3$

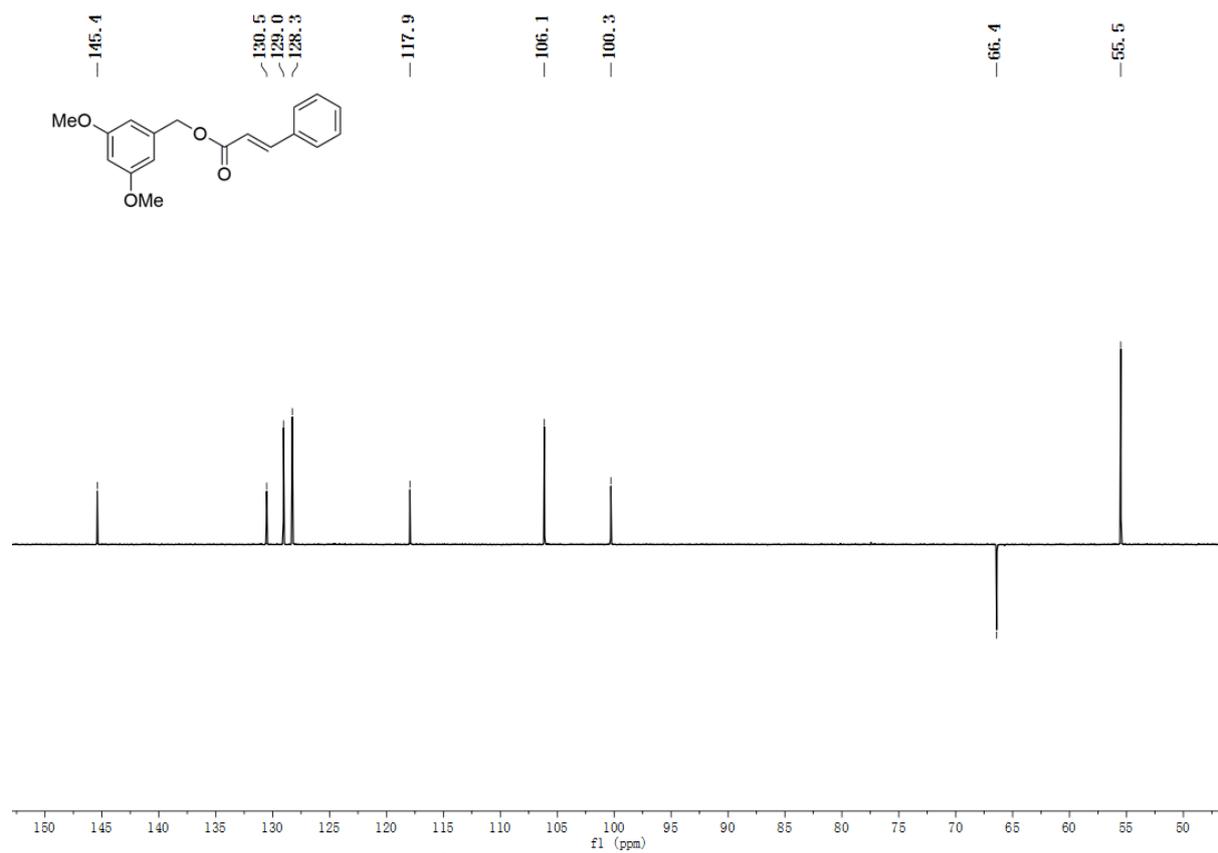
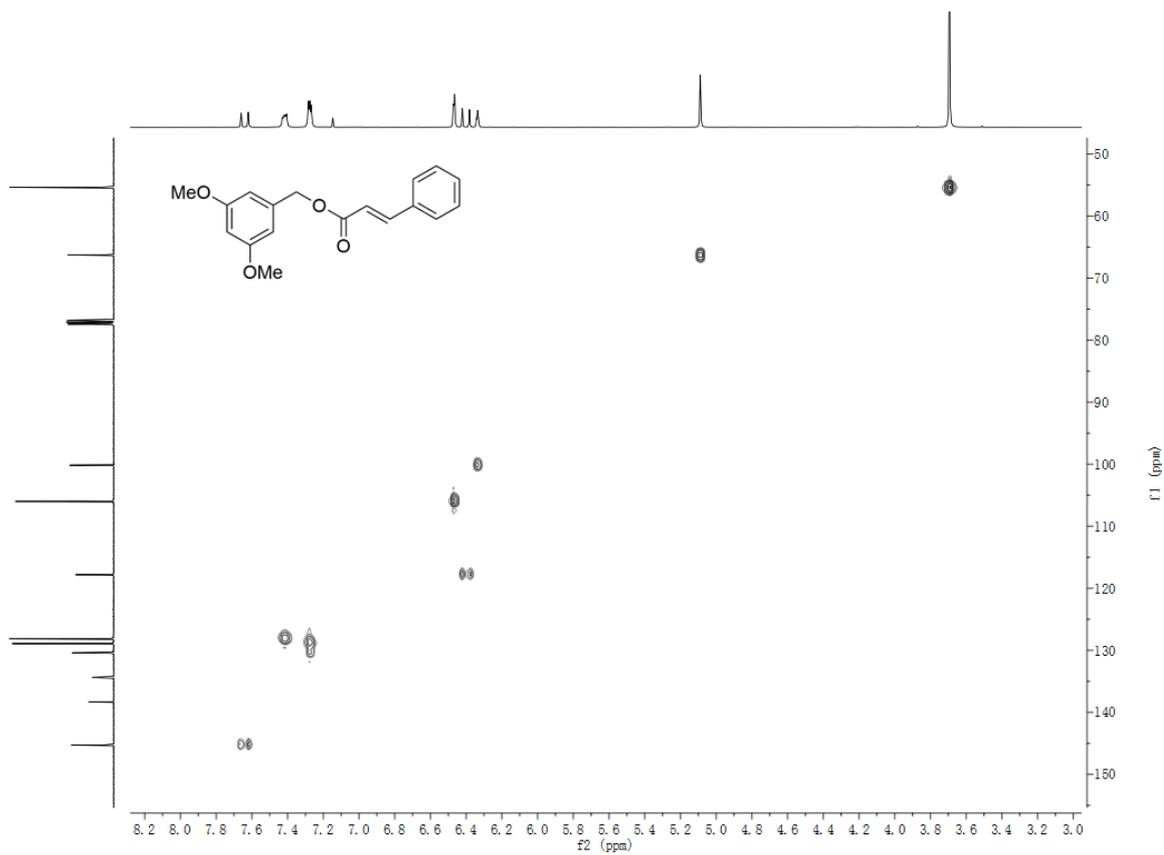


Figure S6: DEPT 135 spectrum of 1 in CDCl<sub>3</sub>



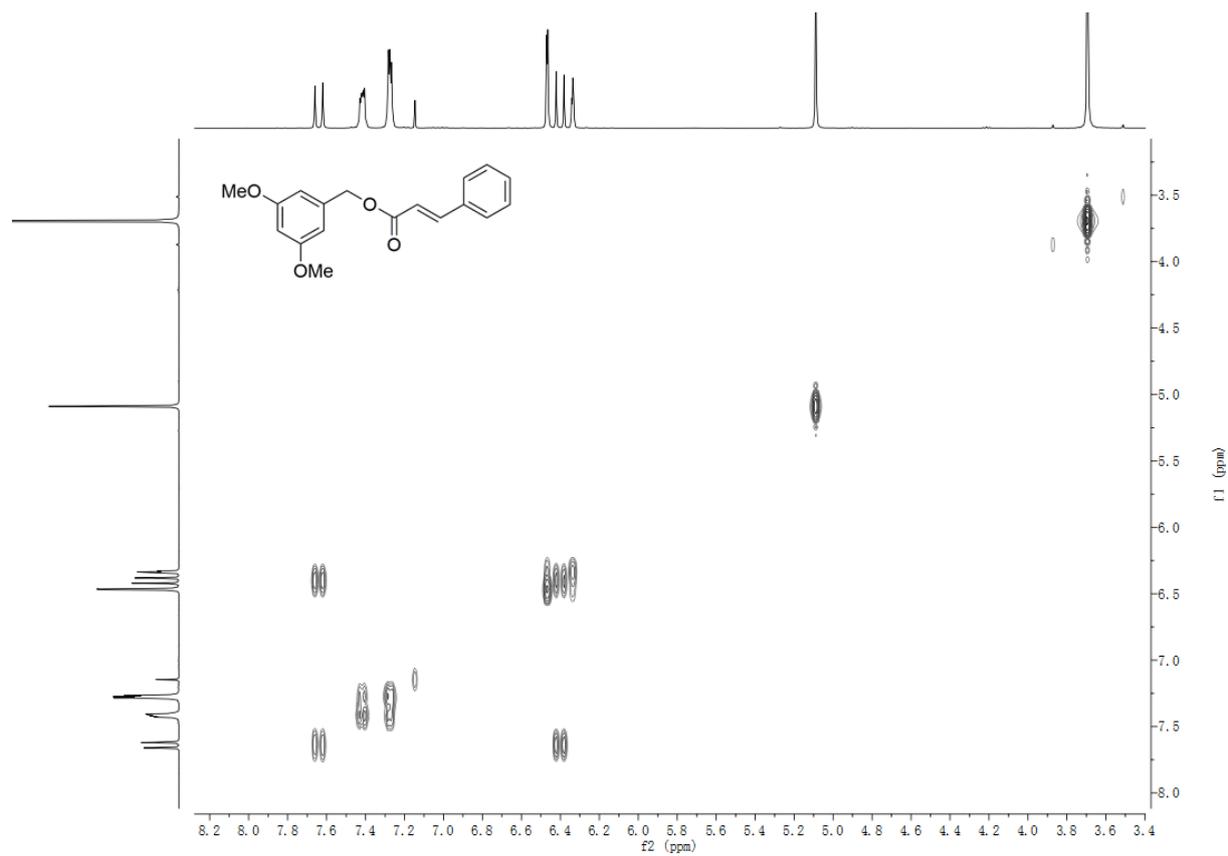


Figure S8:  $^1\text{H}$ - $^1\text{H}$  COSY spectrum of **1** in  $\text{CDCl}_3$

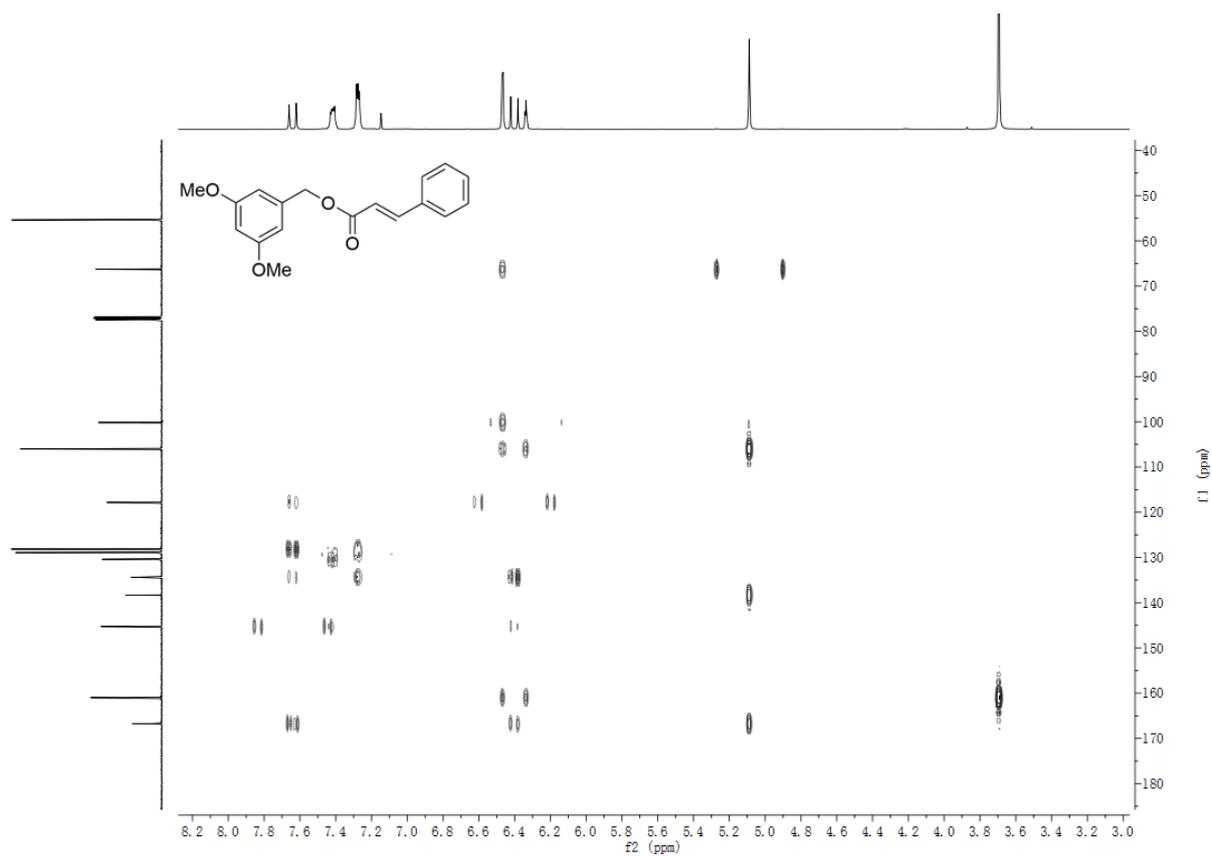
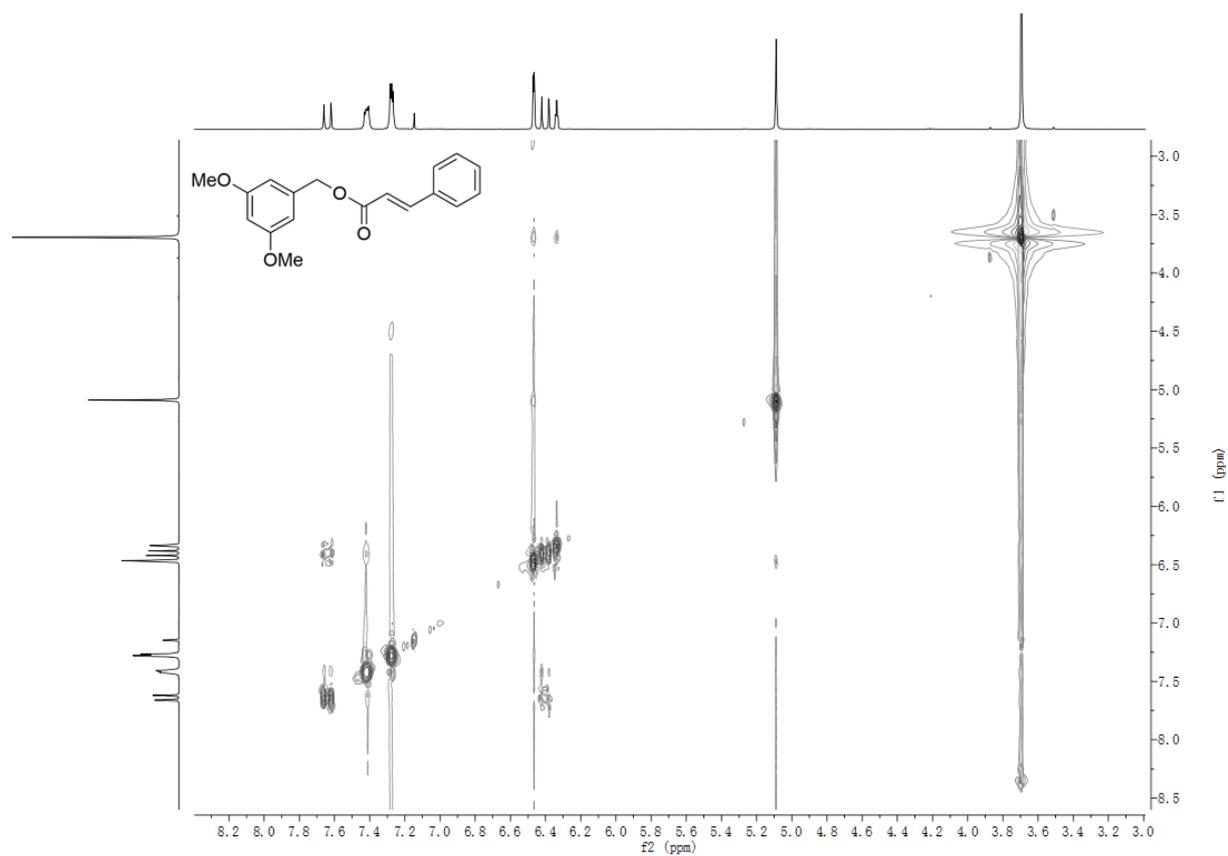


Figure S9: HMBC spectrum of 1 in CDCl<sub>3</sub>



**Figure S10:** NOESY spectrum of **1** in  $\text{CDCl}_3$

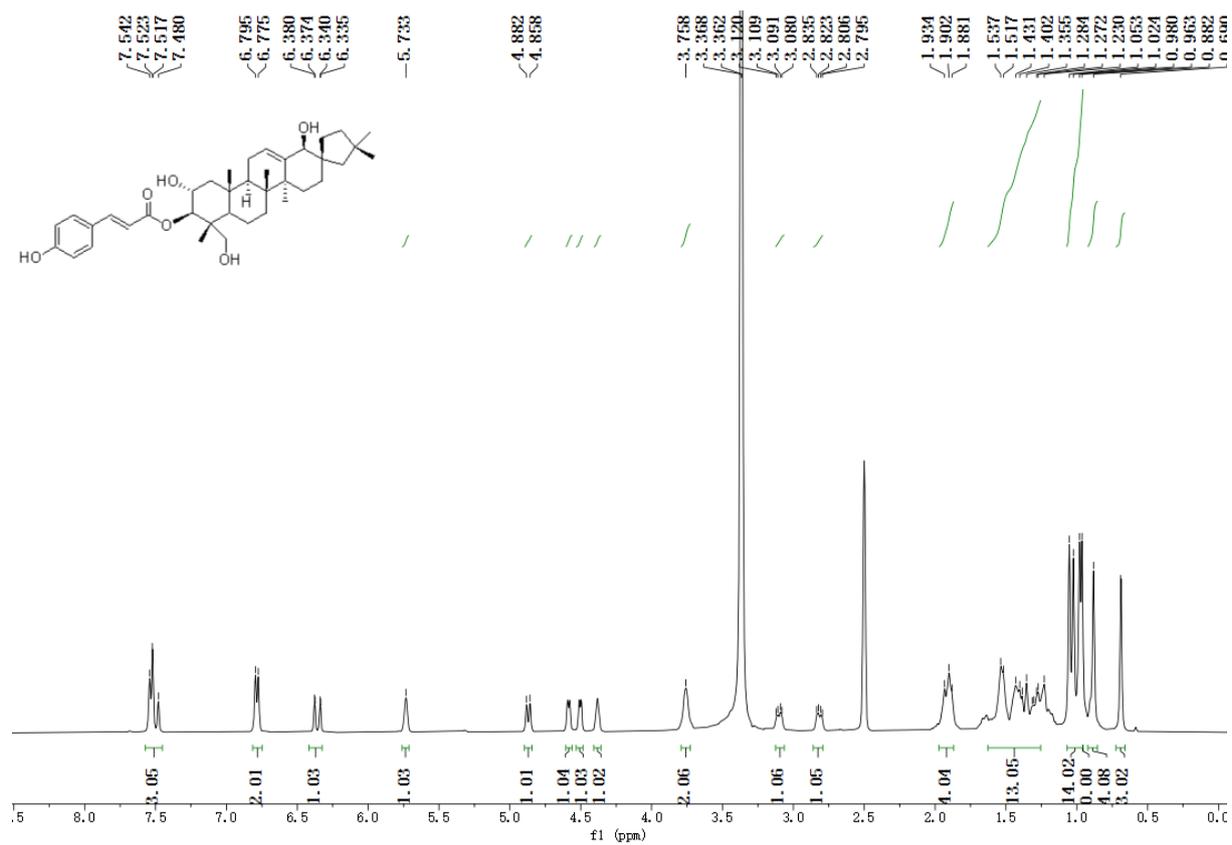
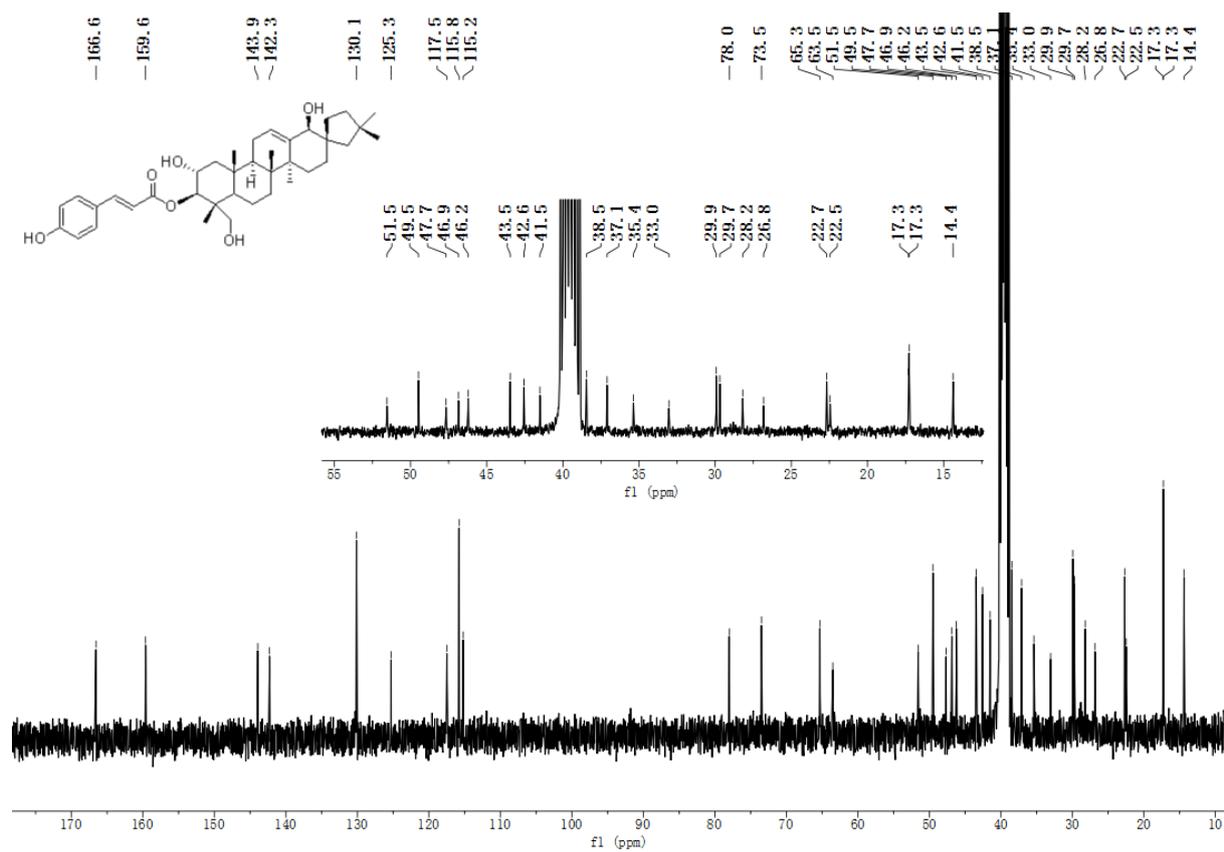
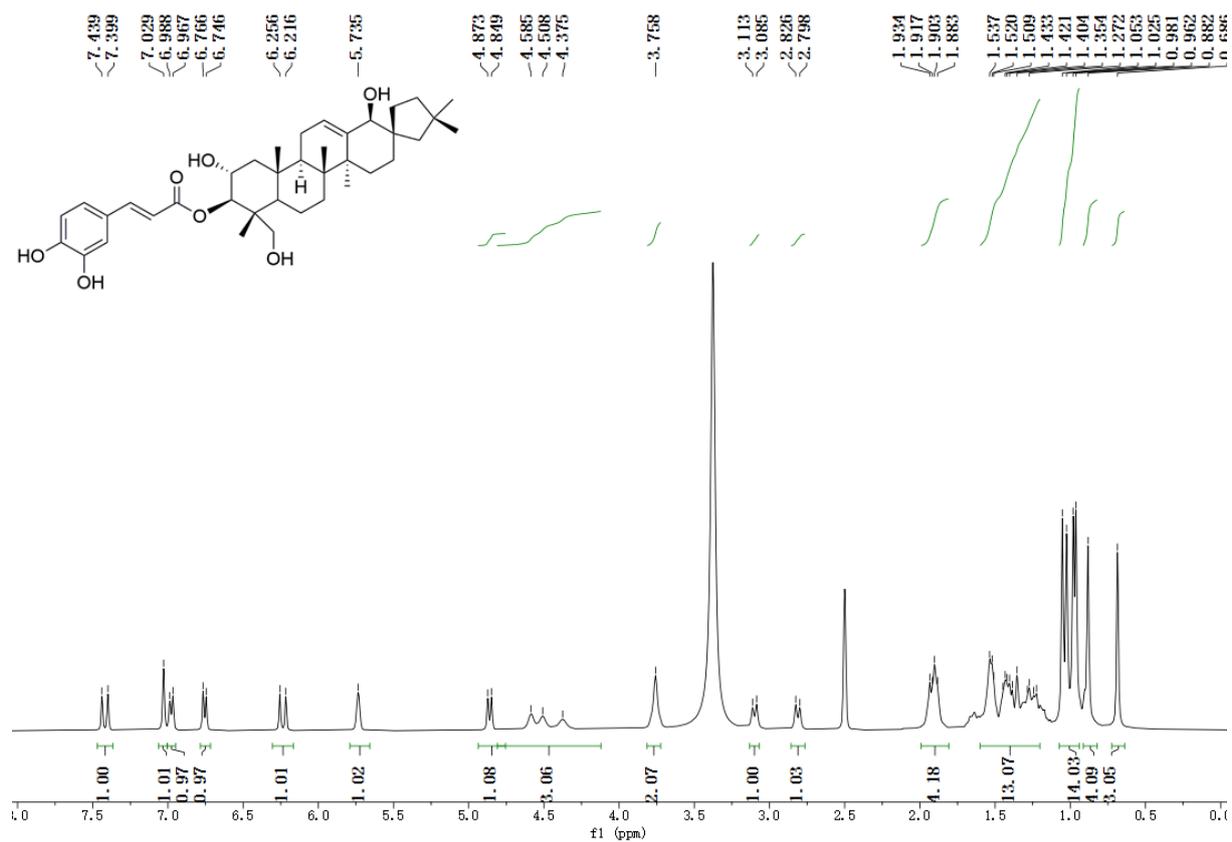


Figure S11:  $^1\text{H}$  NMR spectrum (400 MHz) of 2 in DMSO-d<sub>6</sub>

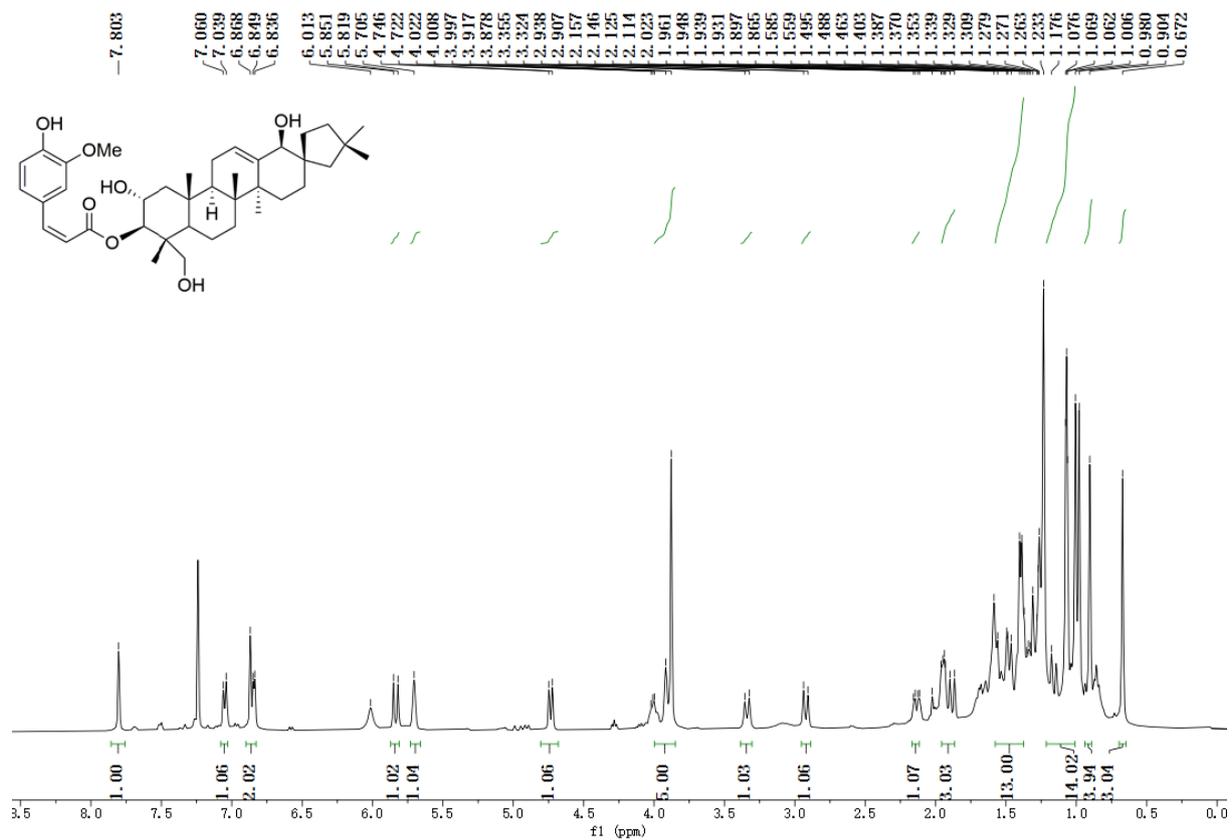


**Figure S12:**  $^{13}\text{C}$  NMR spectrum (100 MHz) of **2** in DMSO- $d_6$

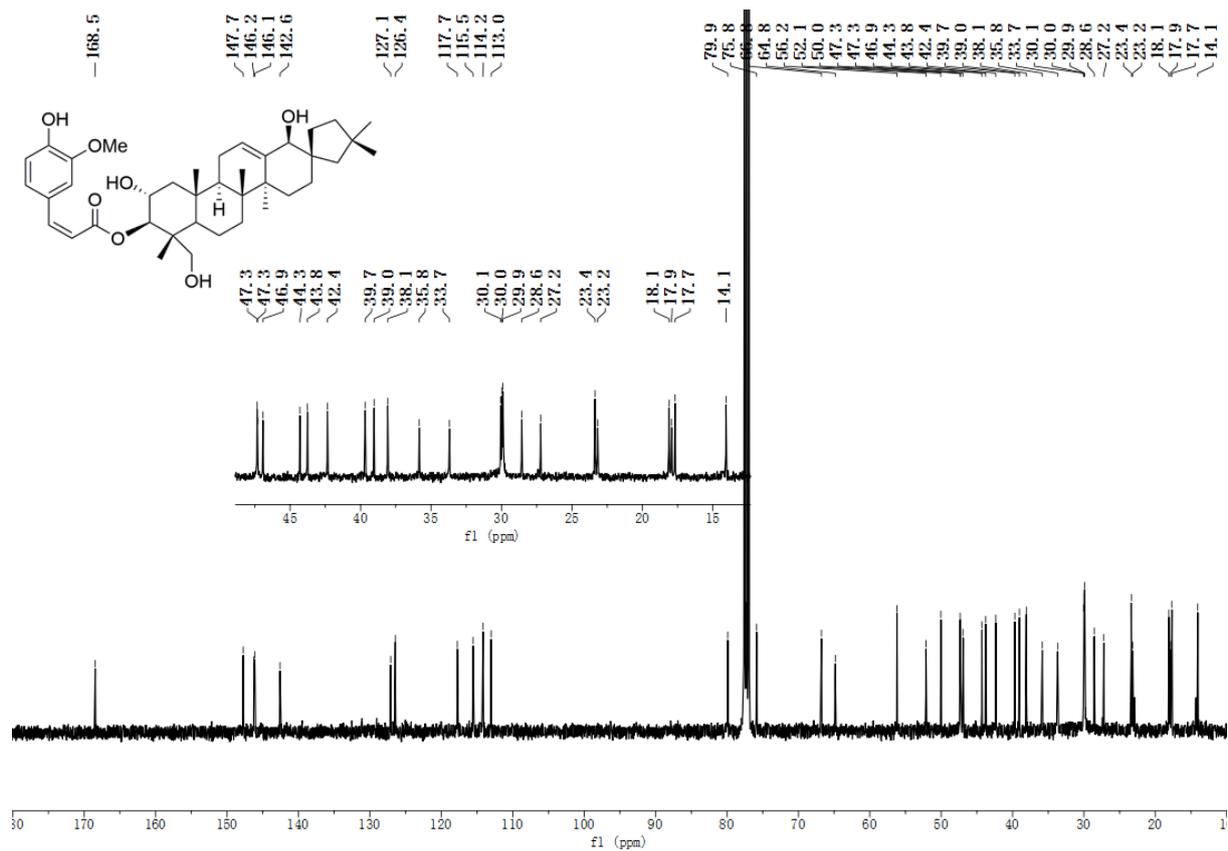


**Figure S13:** <sup>1</sup>H NMR spectrum (400 MHz) of 3 in DMSO-d<sub>6</sub>

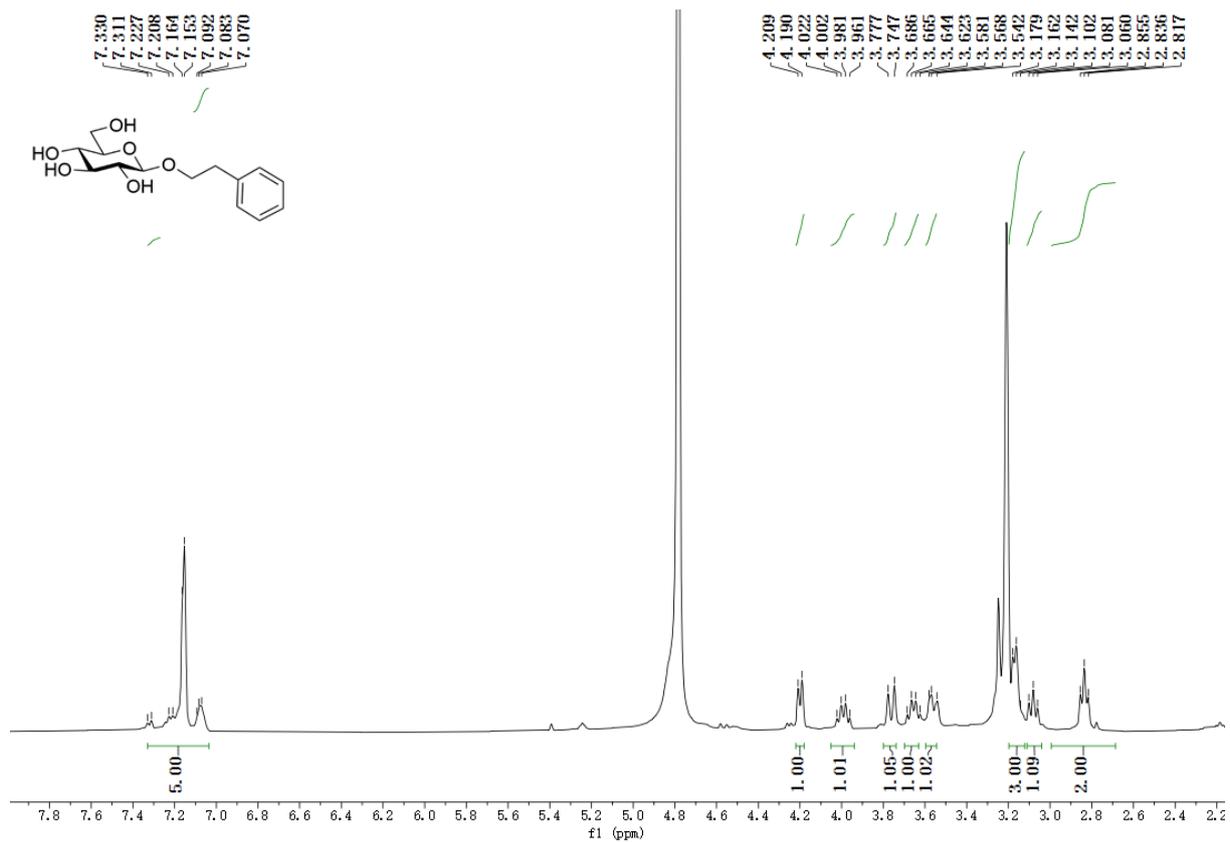




**Figure S15:**  $^1\text{H}$  NMR spectrum (400 MHz) of **4** in  $\text{CDCl}_3$



**Figure S16:**  $^{13}\text{C}$  NMR spectrum (100 MHz) of **4** in  $\text{CDCl}_3$



**Figure S17:** <sup>1</sup>H NMR spectrum (400 MHz) of 5 in CD<sub>3</sub>OD

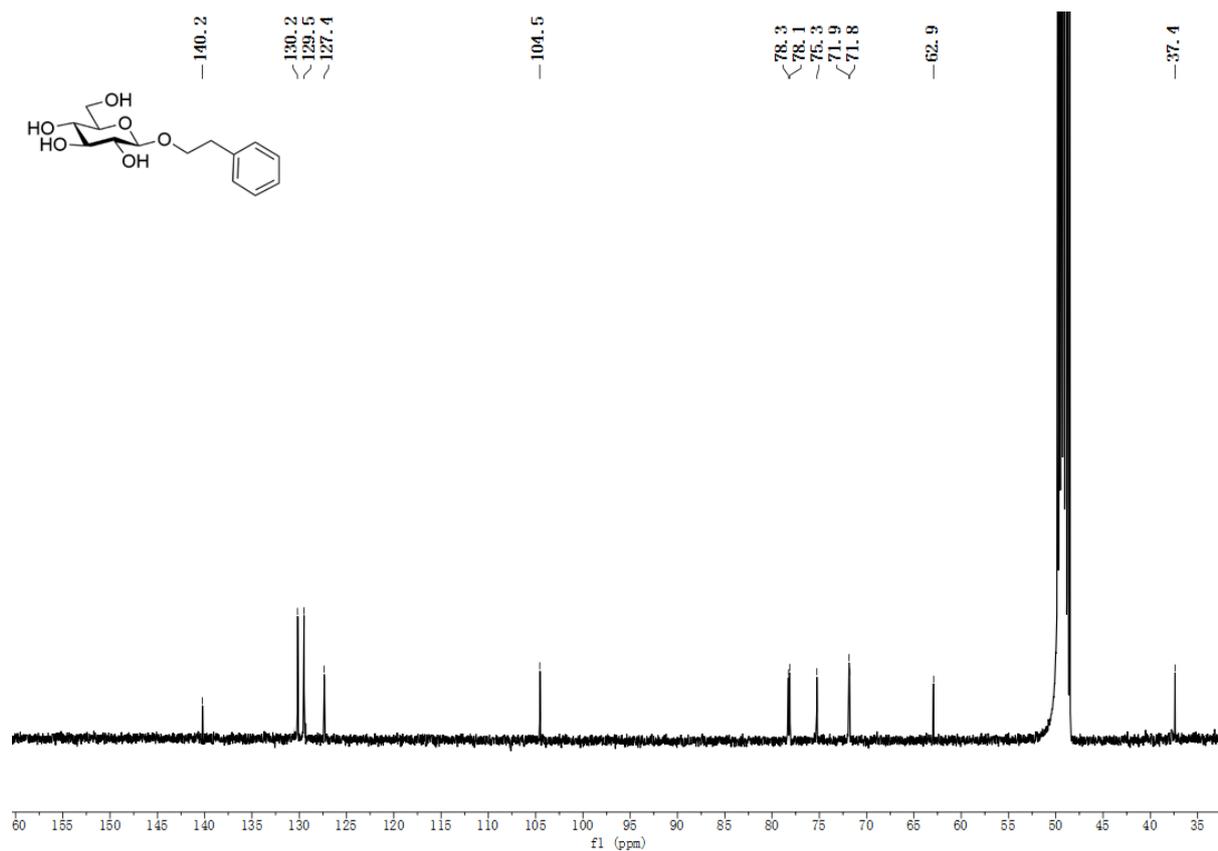
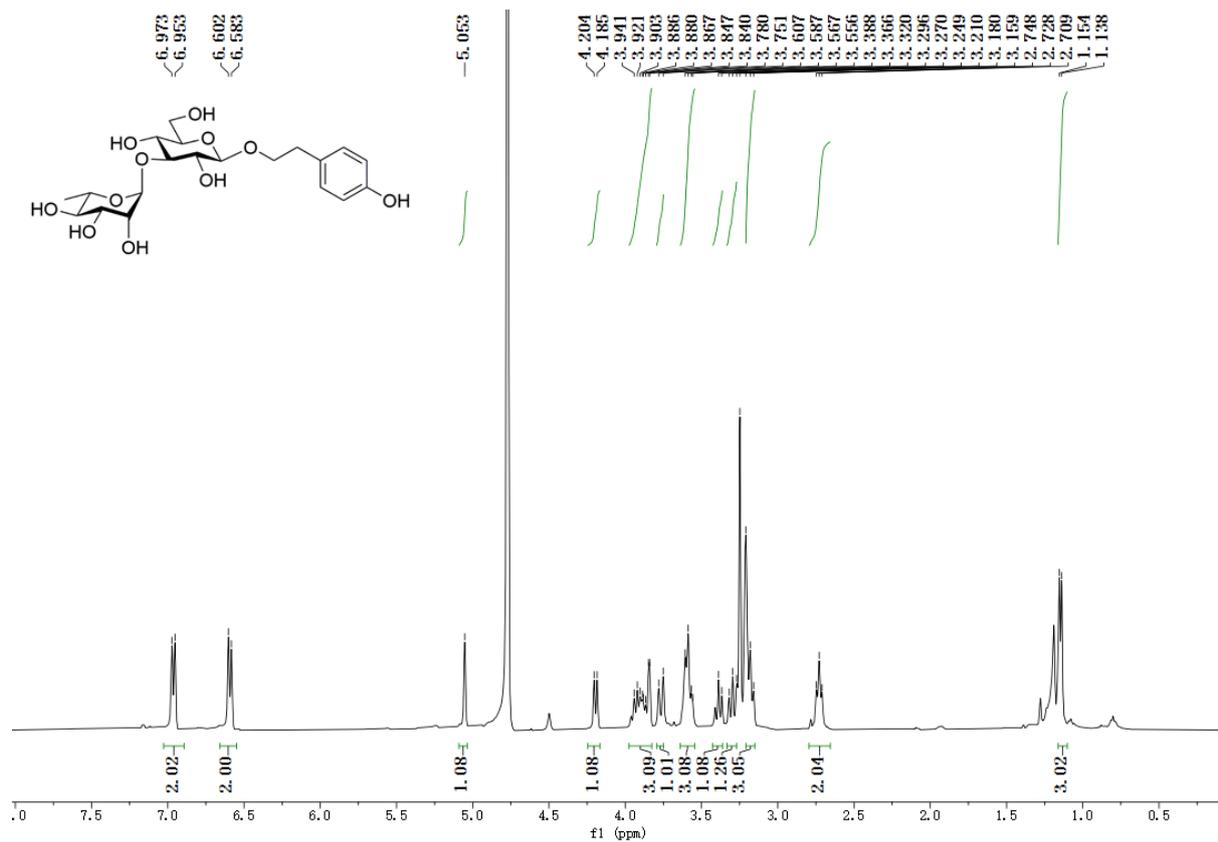
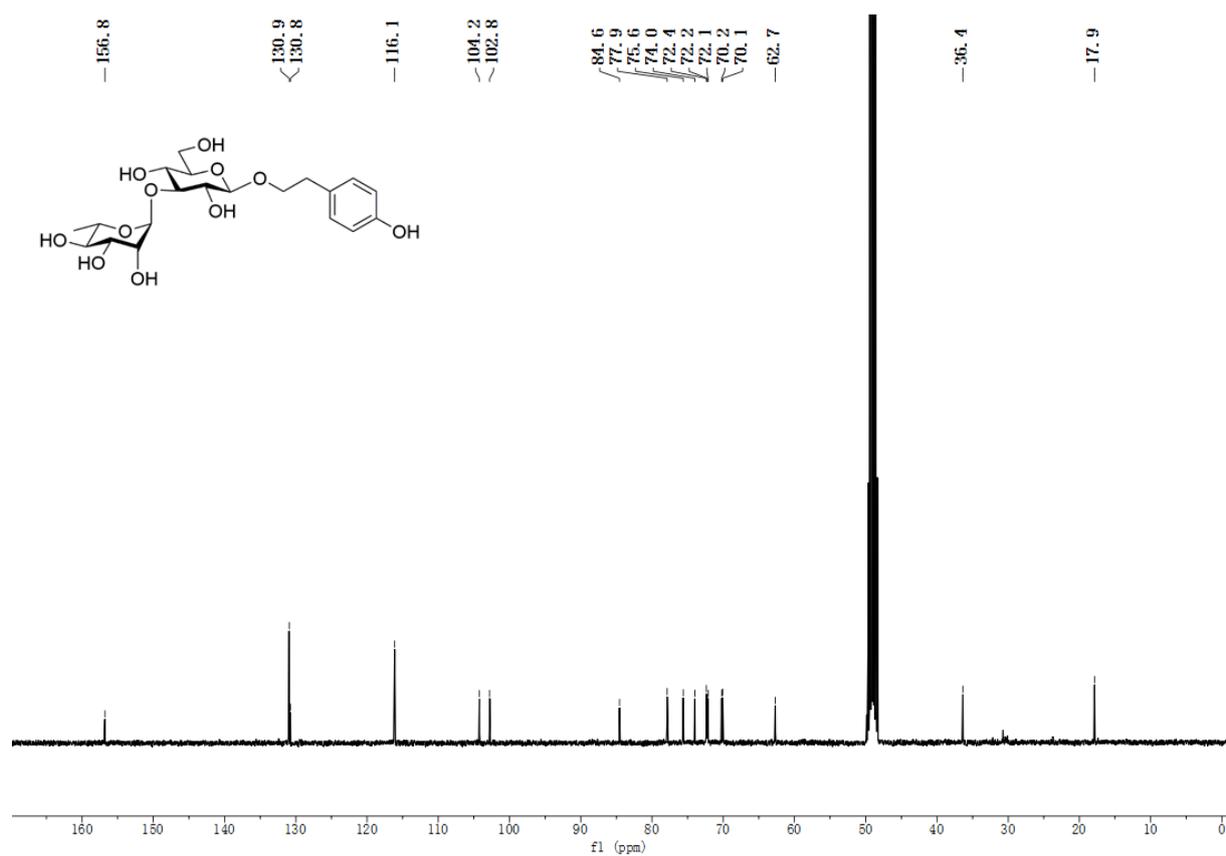


Figure S18: <sup>13</sup>C NMR spectrum (100 MHz) of 5 in CD<sub>3</sub>OD



**Figure S19:** <sup>1</sup>H NMR spectrum (400 MHz) of **6** in CD<sub>3</sub>OD



**Figure S20:**  $^{13}\text{C}$  NMR spectrum (100 MHz) of **6** in  $\text{CD}_3\text{OD}$

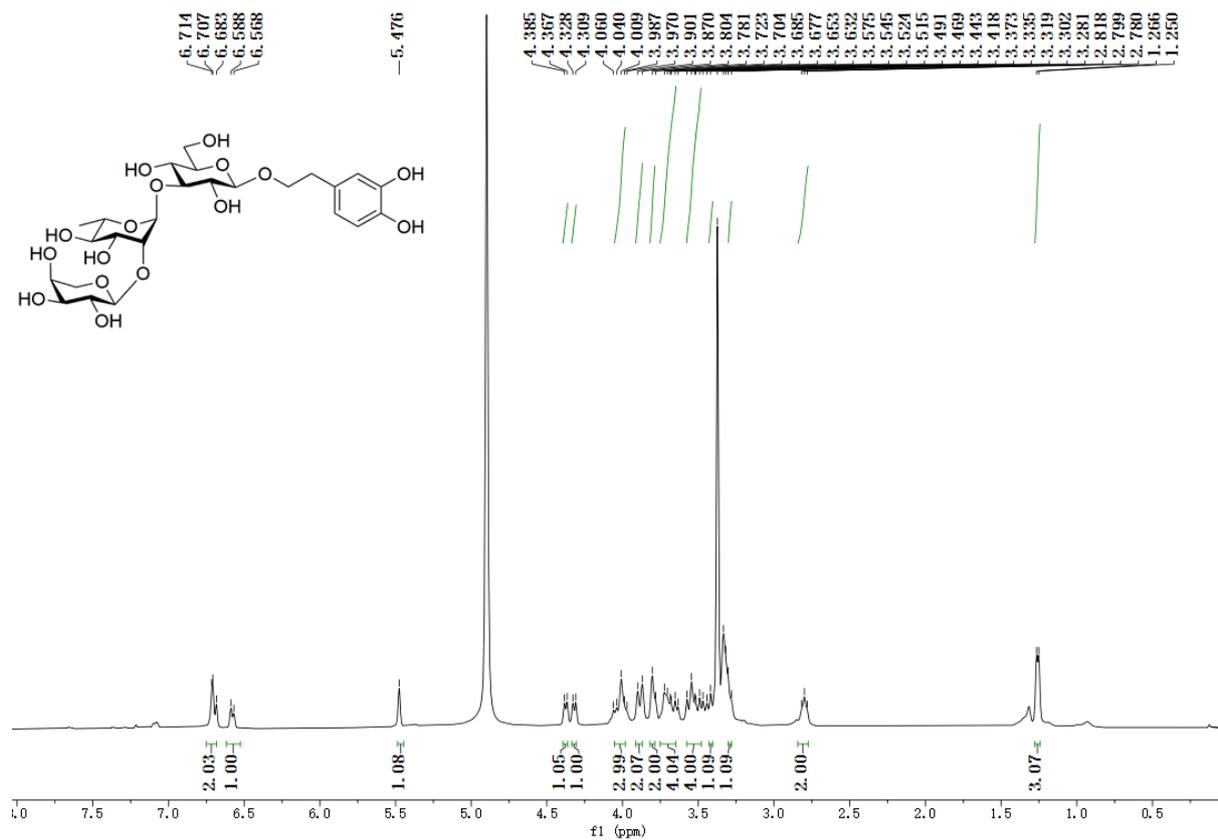
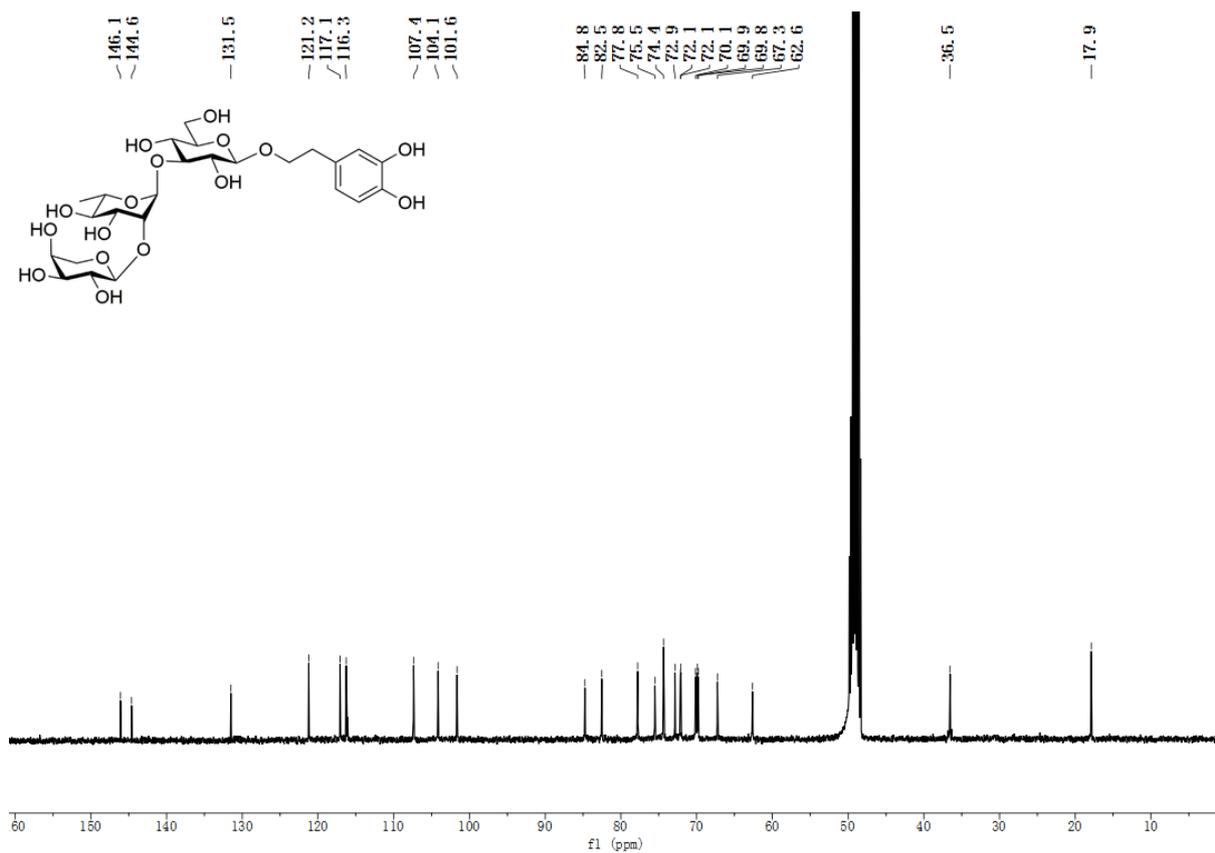
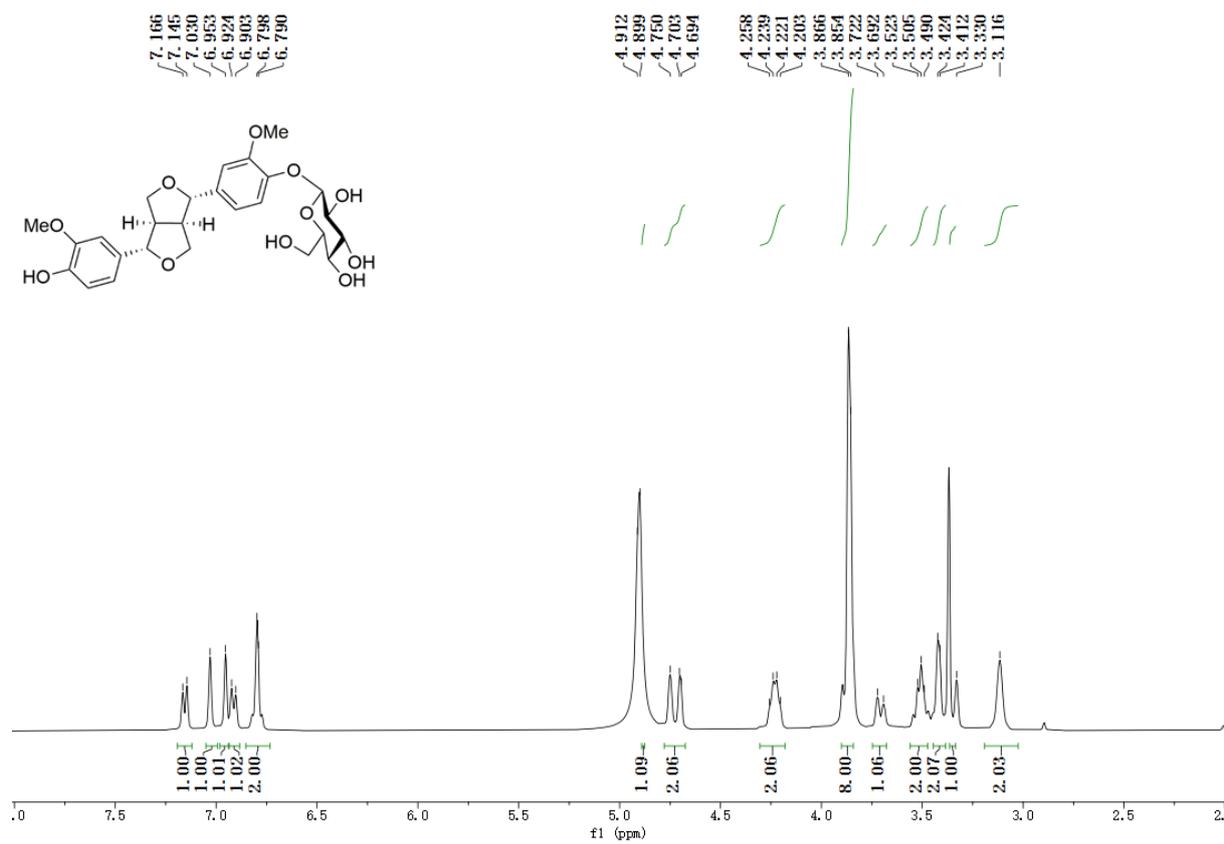
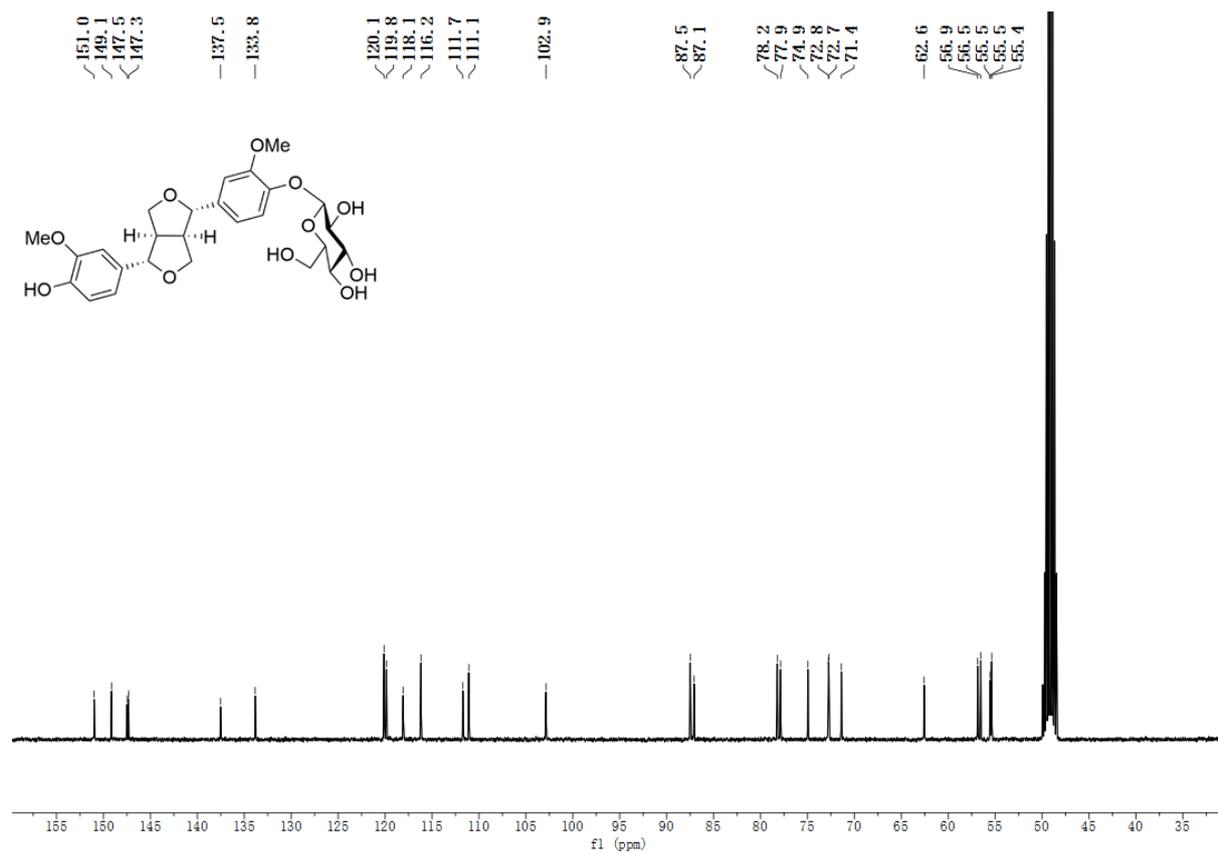


Figure S21: <sup>1</sup>H NMR spectrum (400 MHz) of 7 in CD<sub>3</sub>OD

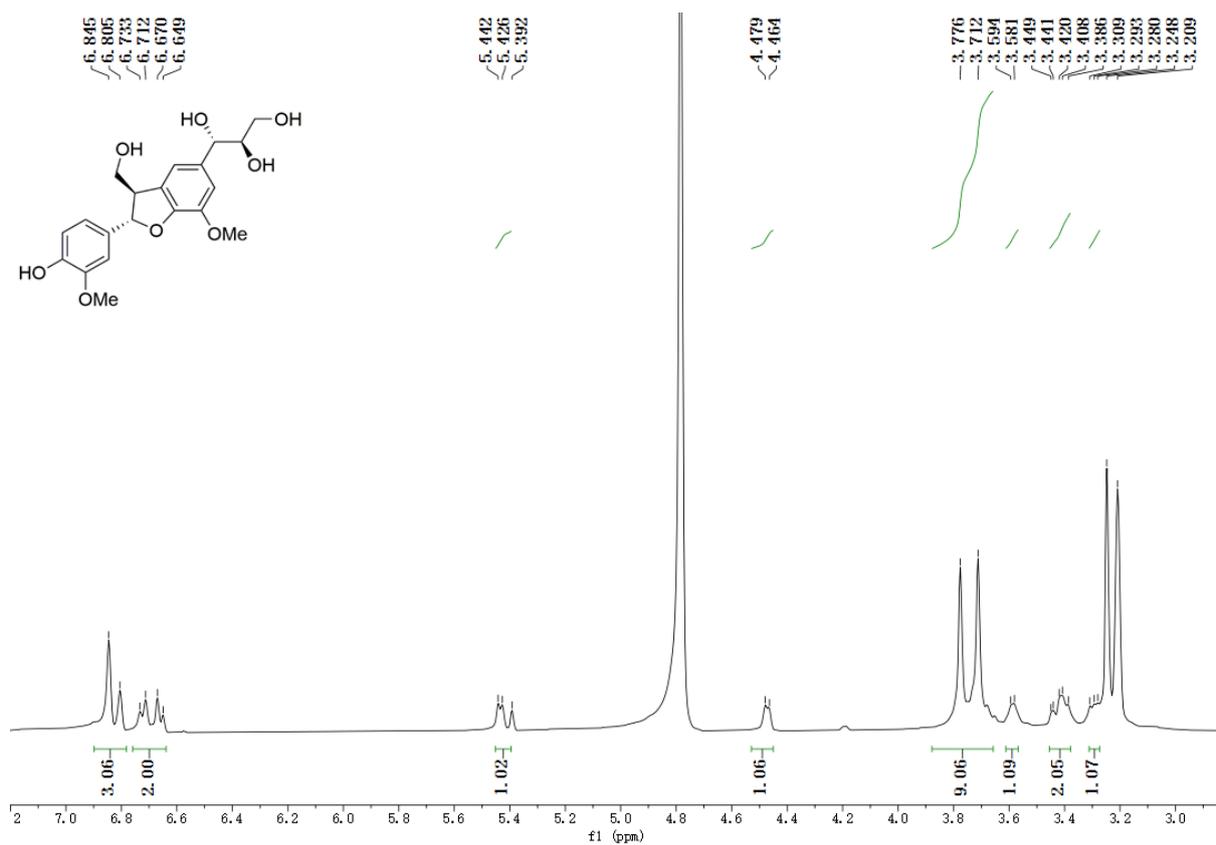


**Figure S22:**  $^{13}\text{C}$  NMR spectrum (100 MHz) of **7** in  $\text{CD}_3\text{OD}$

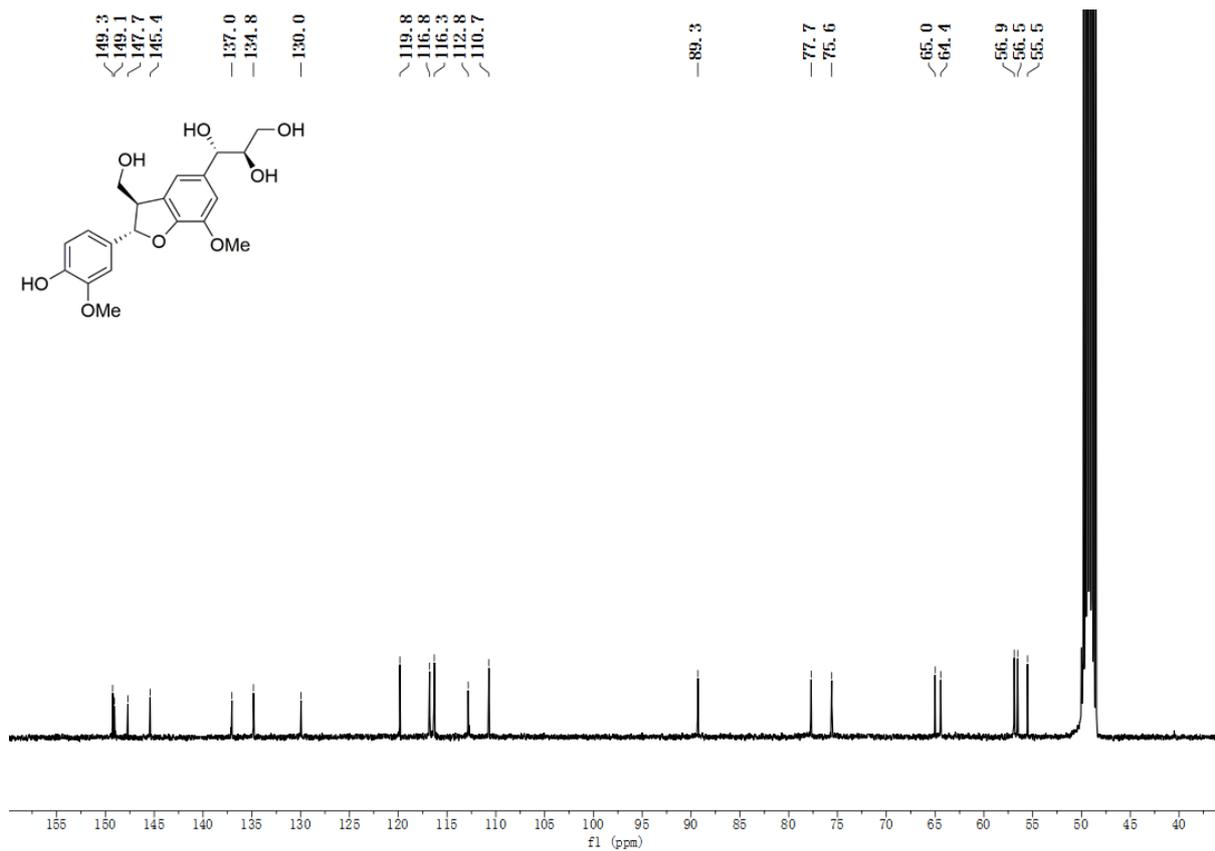




**Figure S24:** <sup>13</sup>C NMR spectrum (100 MHz) of **8** in CD<sub>3</sub>OD



**Figure S25:**  $^1\text{H}$  NMR spectrum (400 MHz) of **9** in  $\text{CD}_3\text{OD}$



**Figure S26:** <sup>13</sup>C NMR spectrum (100 MHz) of **9** in CD<sub>3</sub>OD

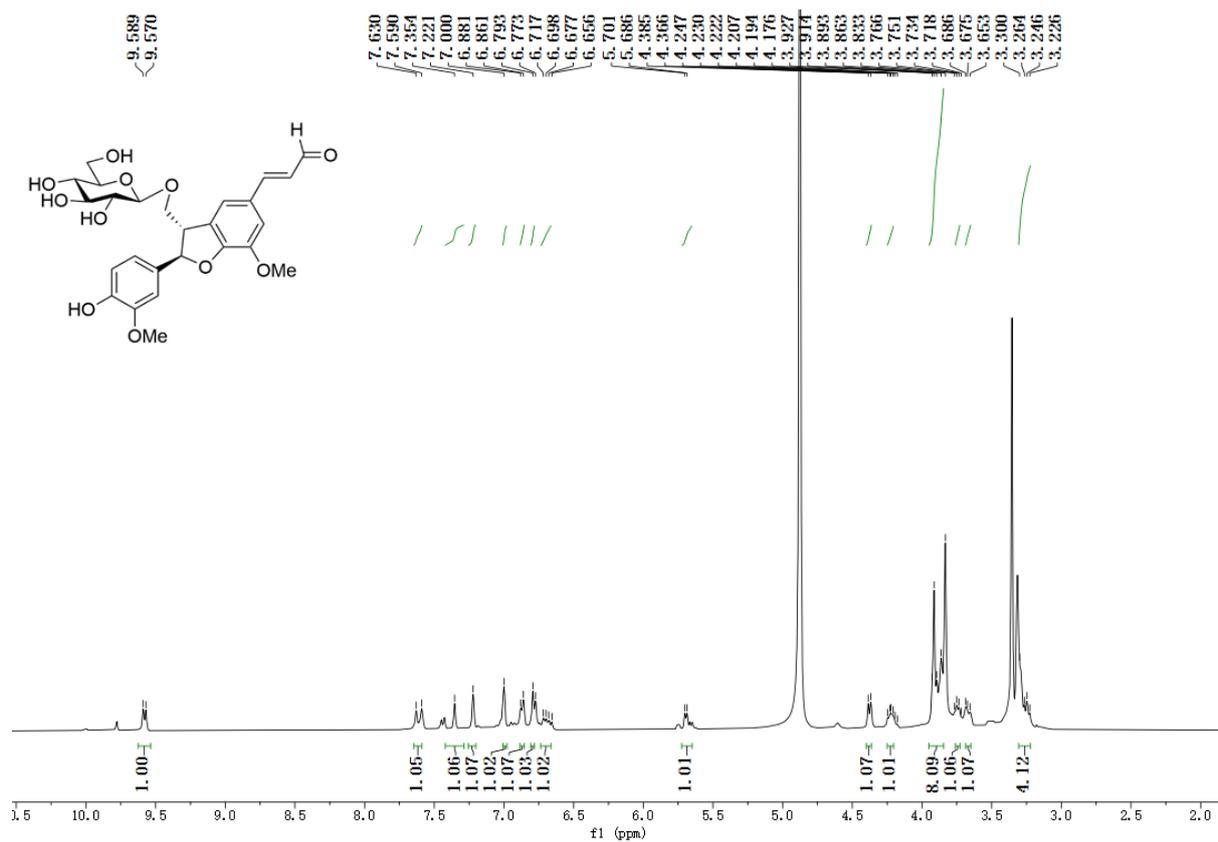
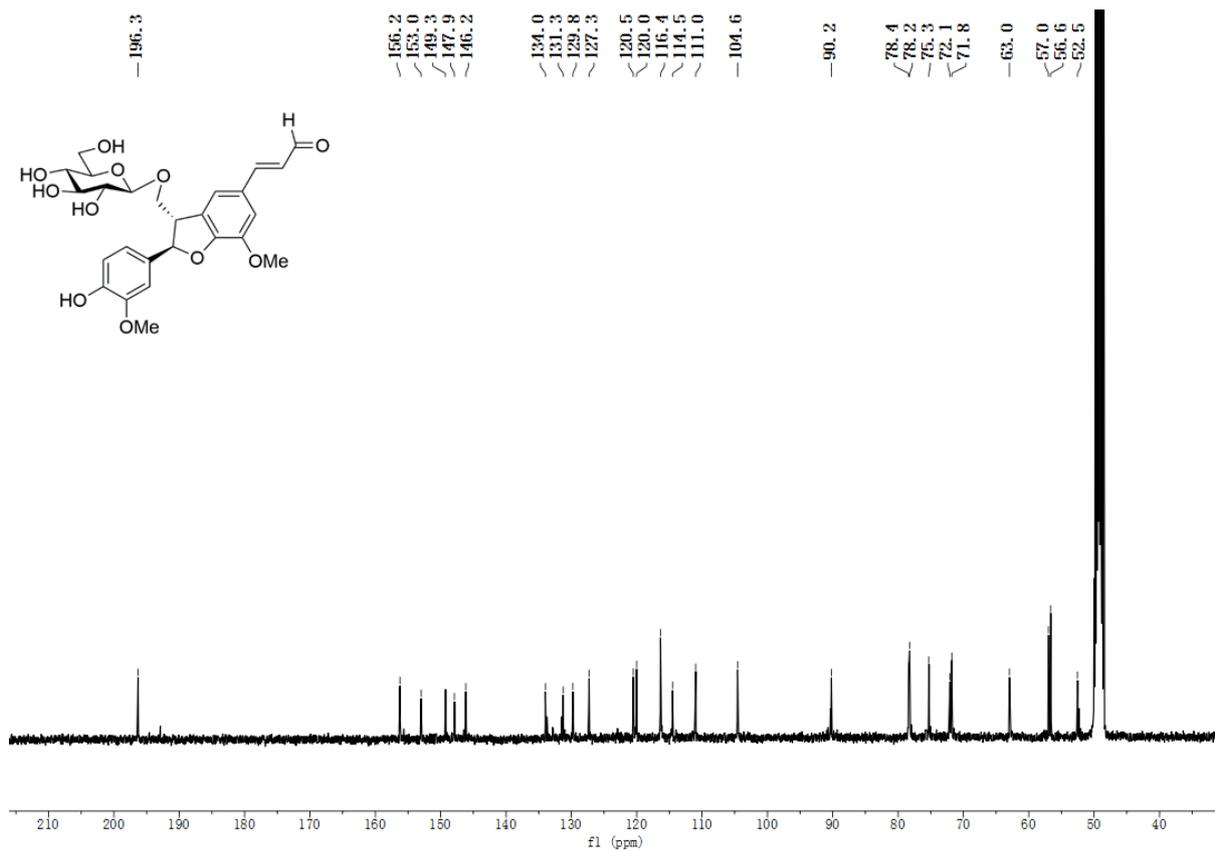
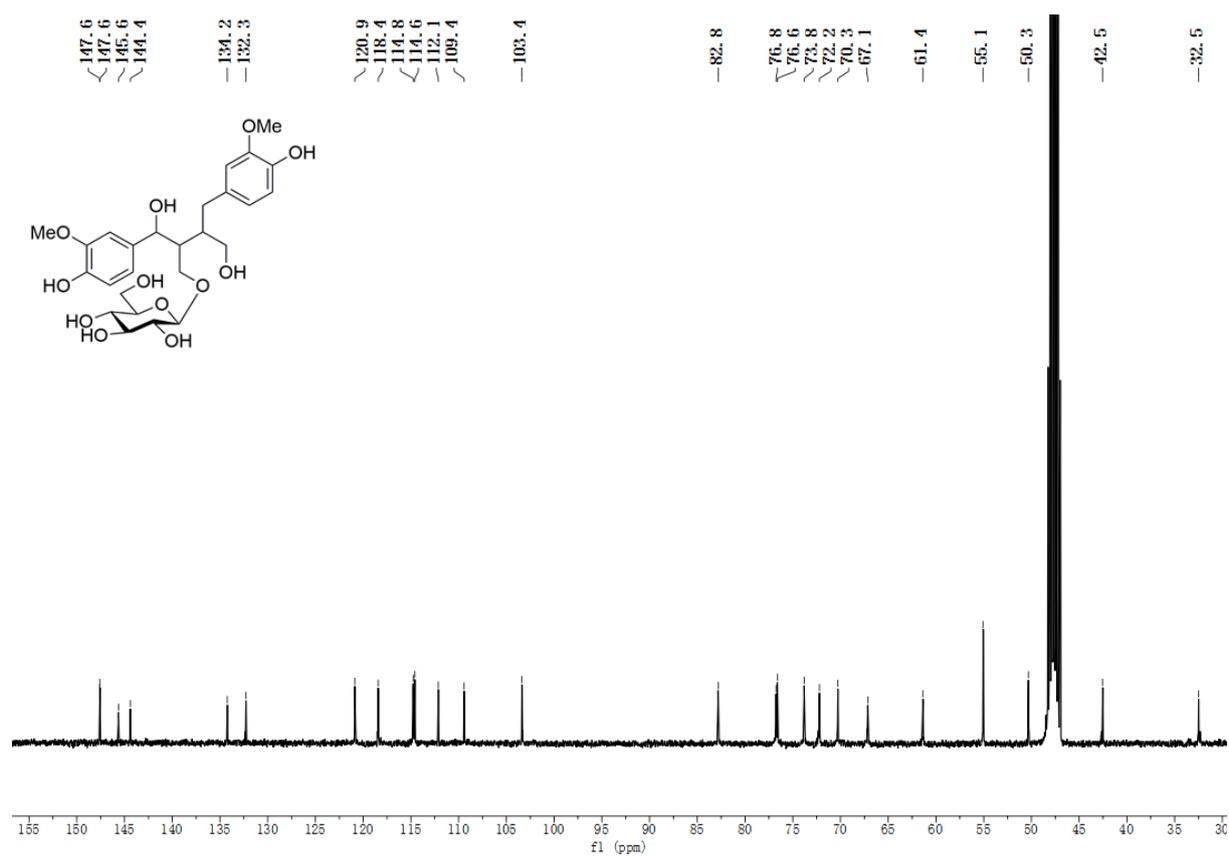


Figure S27: <sup>1</sup>H NMR spectrum (400 MHz) of **10** in CD<sub>3</sub>OD

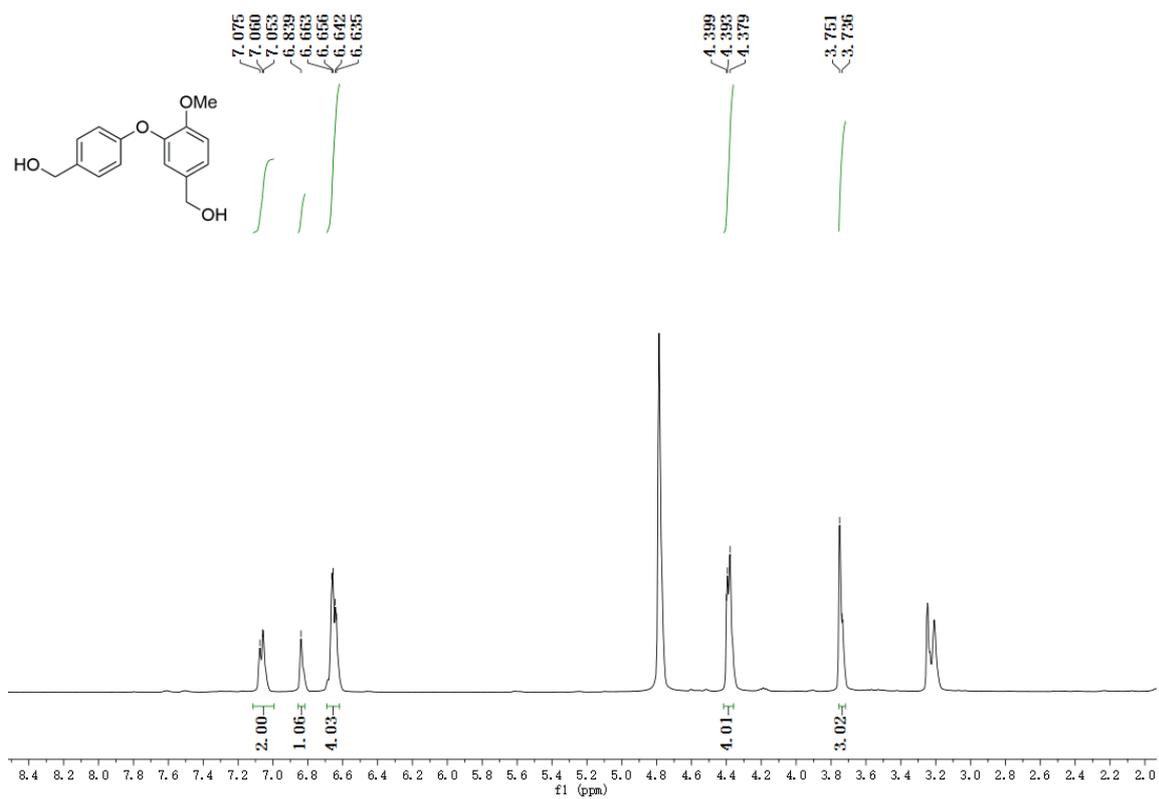


**Figure S28:**  $^{13}\text{C}$  NMR spectrum (100 MHz) of **10** in  $\text{CD}_3\text{OD}$

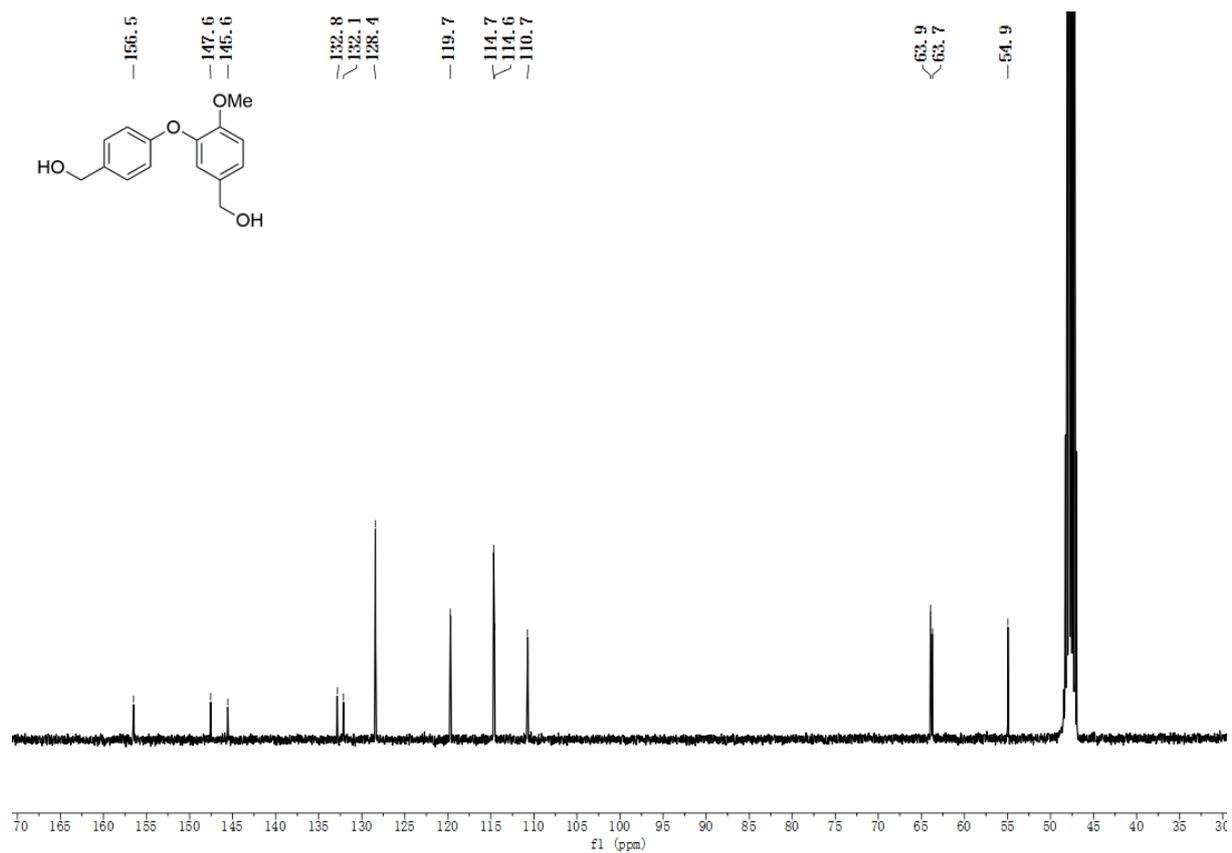




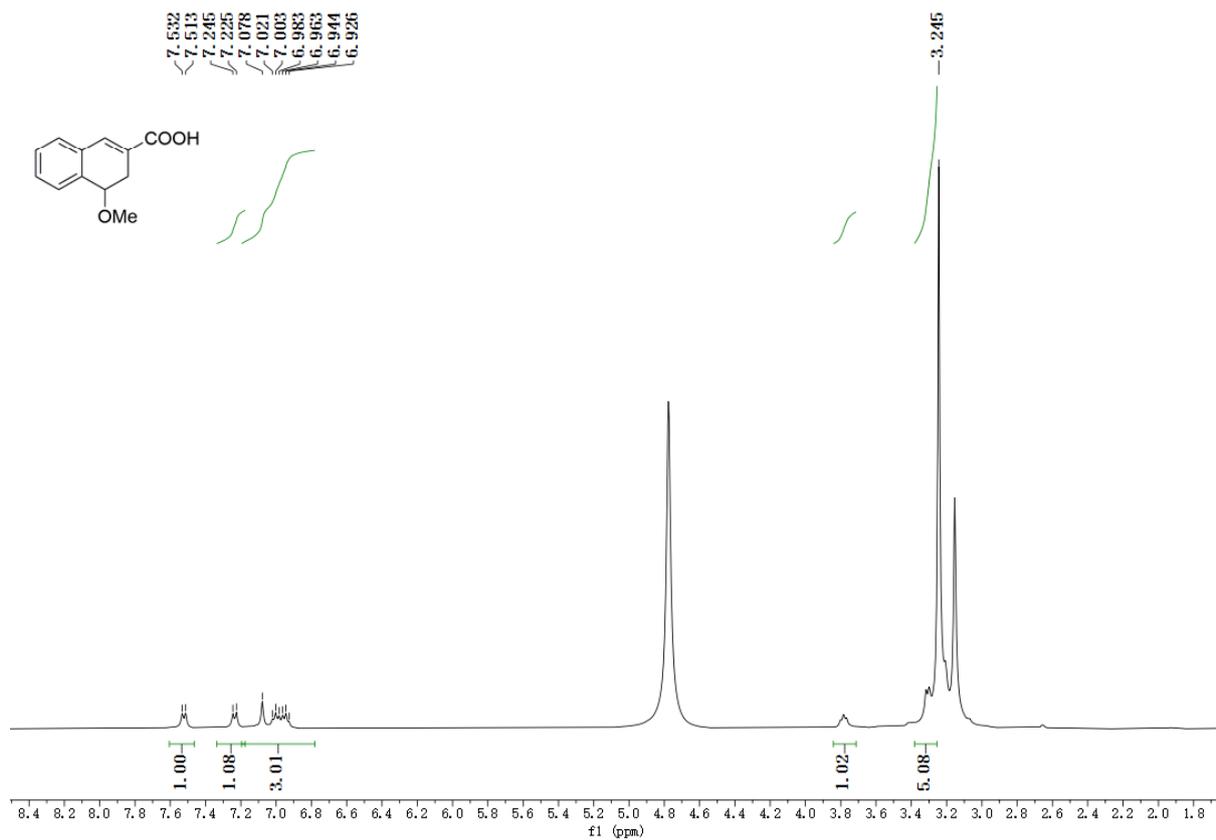
**Figure S30:**  $^{13}\text{C}$  NMR spectrum (100 MHz) of **11** in  $\text{CD}_3\text{OD}$



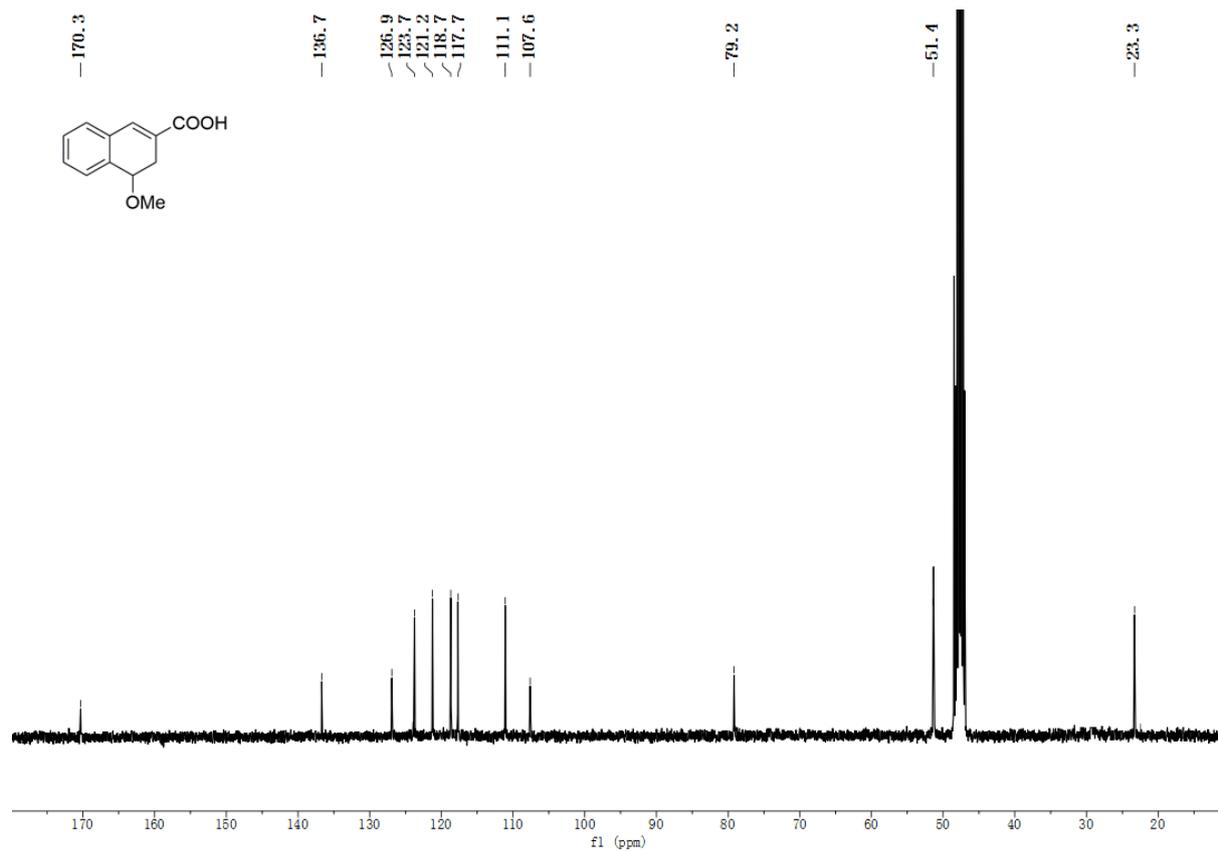
**Figure S31:**  $^1\text{H}$  NMR spectrum (400 MHz) of **12** in  $\text{CD}_3\text{OD}$



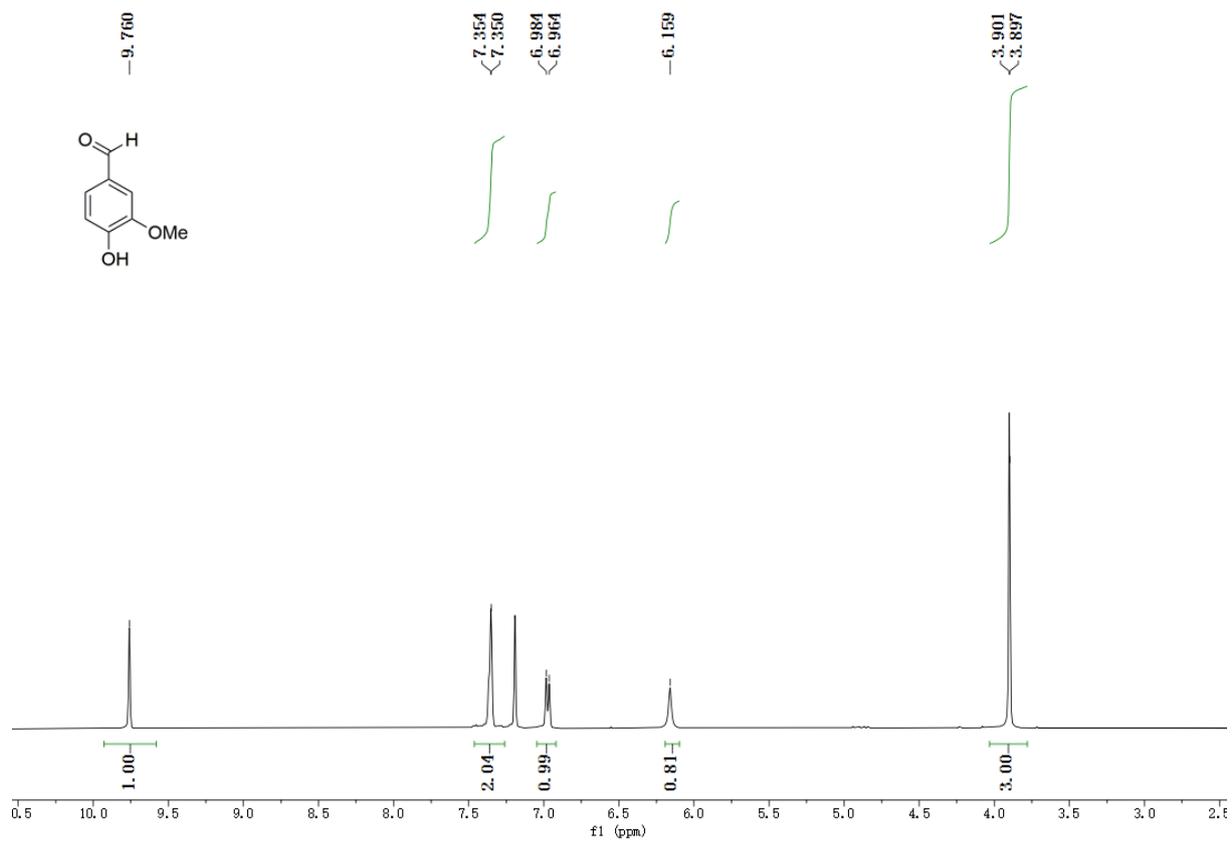
**Figure S32:**  $^{13}\text{C}$  NMR spectrum (100 MHz) of **12** in CD<sub>3</sub>OD



**Figure S33:** <sup>1</sup>H NMR spectrum (400 MHz) of **13** in CD<sub>3</sub>OD



**Figure S34:**  $^{13}\text{C}$  NMR spectrum (100 MHz) of **13** in  $\text{CD}_3\text{OD}$



**Figure S35:** <sup>1</sup>H NMR spectrum (400 MHz) of **14** in CDCl<sub>3</sub>

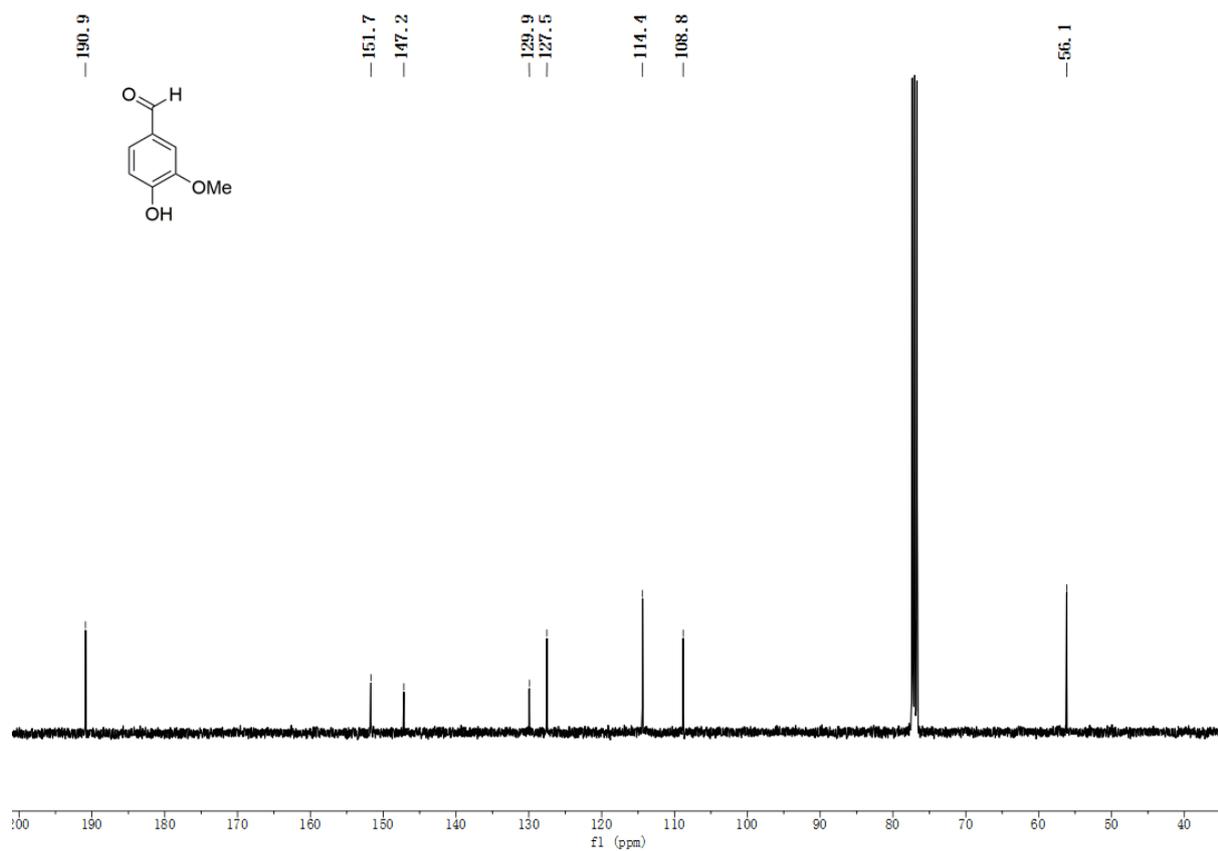


Figure S36: <sup>13</sup>C NMR spectrum (100 MHz) of 14 in CDCl<sub>3</sub>