

Supporting Information

Rec. Nat. Prod. 17:2 (2023) 335-342

A New Monoterpene Rhamnoside from *Cercis glabra* Legumes

Ting Xu^{1,2,3}, Yueyue Lou^{1,2,3}, Yabing Ge³, Xiaoqing Lu³,

Pengpai Zhang^{1,2*} and Penghua Shu^{3*}

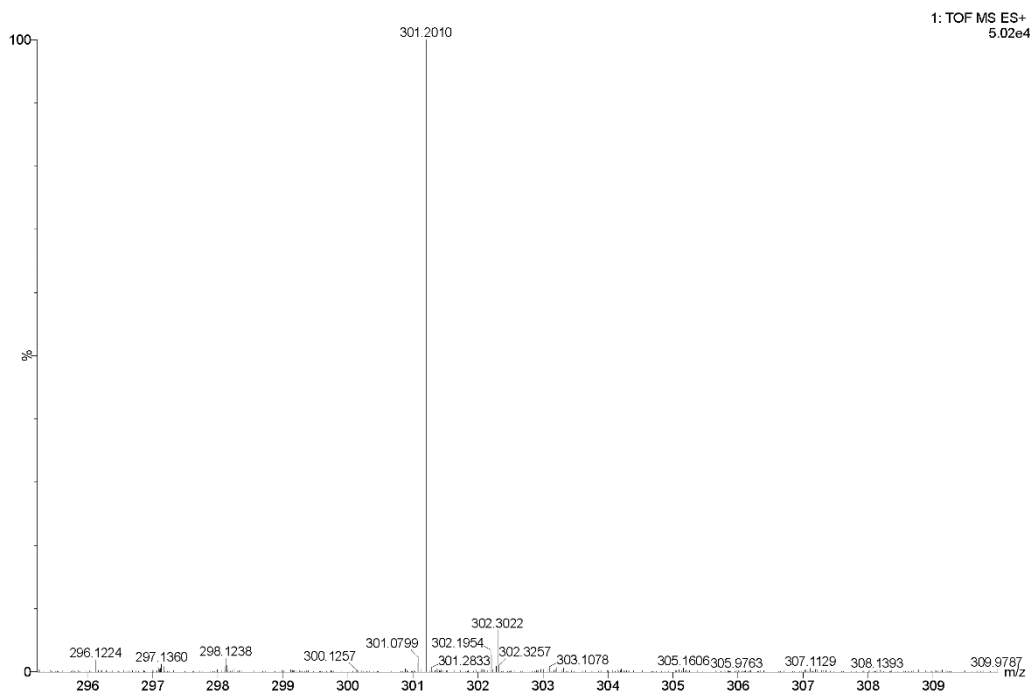
¹ School of Life Sciences, Henan University, Kaifeng, Henan 475004, China

² Engineering Research Center for Applied Microbiology of Henan Province, Kaifeng 475004, China

³ Food and Pharmacy College, Xuchang University, 88 Bayi Road, Xuchang, Henan 461000, China

Table of Contents	Page
Figure S1: HR-ESI-MS spectrum of 1	3
Figure S2: UV spectrum of 1 in CHCl ₃	4
Figure S3: IR spectrum of 1	5
Figure S4: ¹ H NMR spectrum (400 MHz) of 1 in CDCl ₃	6
Figure S5: ¹³ C NMR spectrum (100 MHz) of 1 in CDCl ₃	7
Figure S6: DEPT 135 spectrum of 1 in CDCl ₃	8
Figure S7: HSQC spectrum of 1 in CDCl ₃	9
Figure S8: ¹ H- ¹ H COSY spectrum of 1 in CDCl ₃	10
Figure S9: HMBC spectrum of 1 in CDCl ₃	11
Figure S10: NOESY spectrum of 1 in CDCl ₃	12
Figure S11: ¹ H NMR spectrum (400 MHz) of 1a in CDCl ₃	13
Figure S12: ¹³ C NMR spectrum (100 MHz) of 1a in CDCl ₃	14
Figure S13: ¹ H NMR spectrum (400 MHz) of 2 in CD ₃ OD	15
Figure S14: ¹³ C NMR spectrum (100 MHz) of 2 in CD ₃ OD	16
Figure S15: ¹ H NMR spectrum (400 MHz) of 3 in CD ₃ OD	17
Figure S16: ¹³ C NMR spectrum (100 MHz) of 3 in CD ₃ OD	18
Figure S17: ¹ H NMR spectrum (400 MHz) of 4 in CD ₃ OD	19
Figure S18: ¹³ C NMR spectrum (100 MHz) of 4 in CD ₃ OD	20
Figure S19: ¹ H NMR spectrum (400 MHz) of 5 in CD ₃ OD	21
Figure S20: ¹³ C NMR spectrum (100 MHz) of 5 in CD ₃ OD	22
Figure S21: ¹ H NMR spectrum (400 MHz) of 6 in CD ₃ COCD ₃	23
Figure S22: ¹³ C NMR spectrum (100 MHz) of 6 in CD ₃ COCD ₃	24
Figure S23: ¹ H NMR spectrum (400 MHz) of 7 in CD ₃ OD	25

Figure S24: ^{13}C NMR spectrum (100 MHz) of 7 in CD_3OD	26
Figure S25: ^1H NMR spectrum (400 MHz) of 8 in CD_3OD	27
Figure S26: ^{13}C NMR spectrum (100 MHz) of 8 in CD_3OD	28
Figure S27: ^1H NMR spectrum (400 MHz) of 9 in $\text{DMSO}-d_6$	29
Figure S28: ^{13}C NMR spectrum (100 MHz) of 9 in $\text{DMSO}-d_6$	30
Figure S29: ^1H NMR spectrum (400 MHz) of 10 in $\text{DMSO}-d_6$	31
Figure S30: ^{13}C NMR spectrum (100 MHz) of 10 in $\text{DMSO}-d_6$	32
Figure S31: ^1H NMR spectrum (400 MHz) of 11 in CD_3OD	33
Figure S32: ^{13}C NMR spectrum (100 MHz) of 11 in CD_3OD	34



Elemental Composition Report

Page 1

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

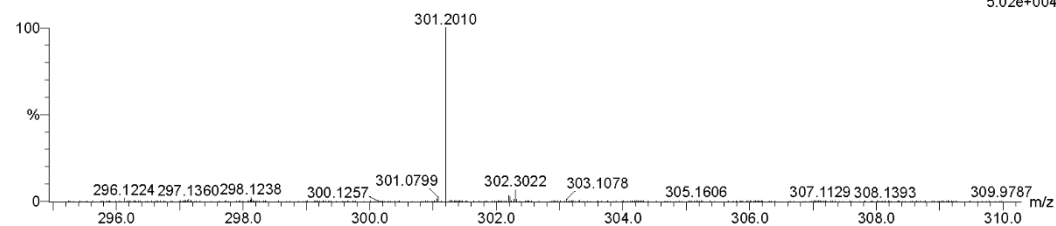
13 formula(e) evaluated with 1 results within limits (up to 50 best isotopic matches for each mass)

Elements Used:

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

1: TOF MS ES+

5.02e+004



Minimum: -1.5
Maximum: 50.0

Mass	Calc. Mass	mDa	PPM	DBE	i-FIT	Norm	Conf (%)	Formula
301.2010	301.2015	-0.5	-1.7	2.5	597.3	n/a	n/a	C16 H29 O5

Figure S1: HR-ESI-MS spectrum of 1

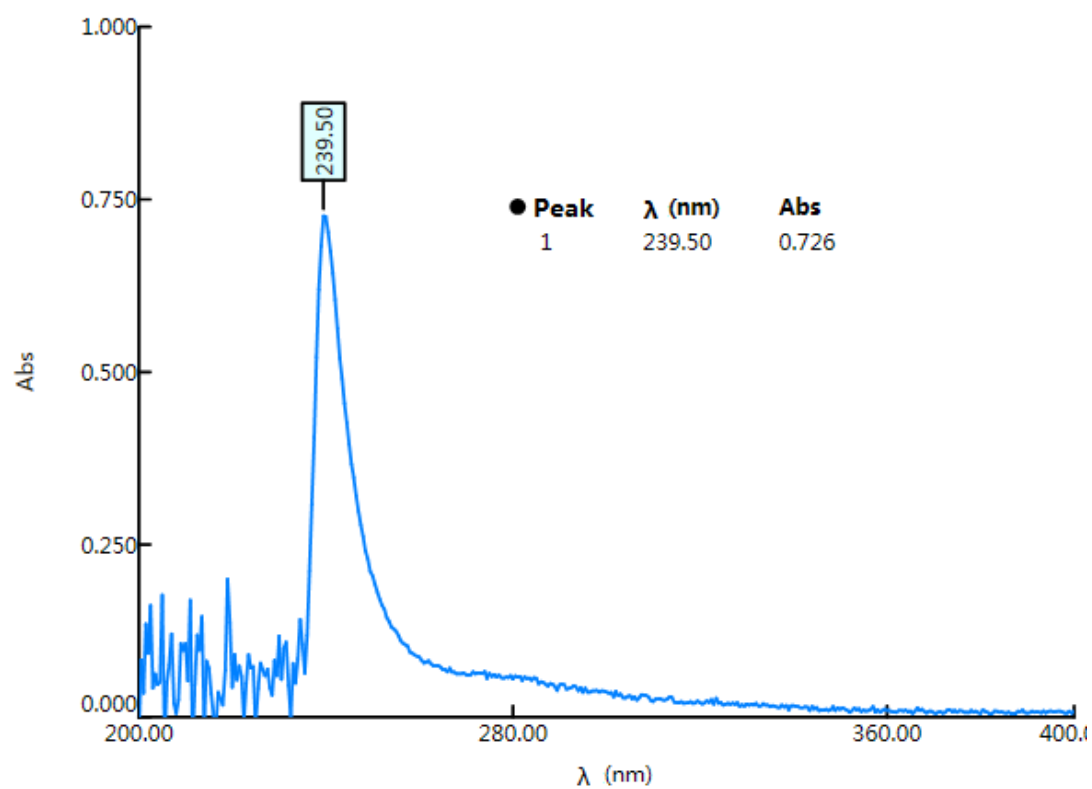


Figure S2: UV spectrum of **1** in CHCl_3

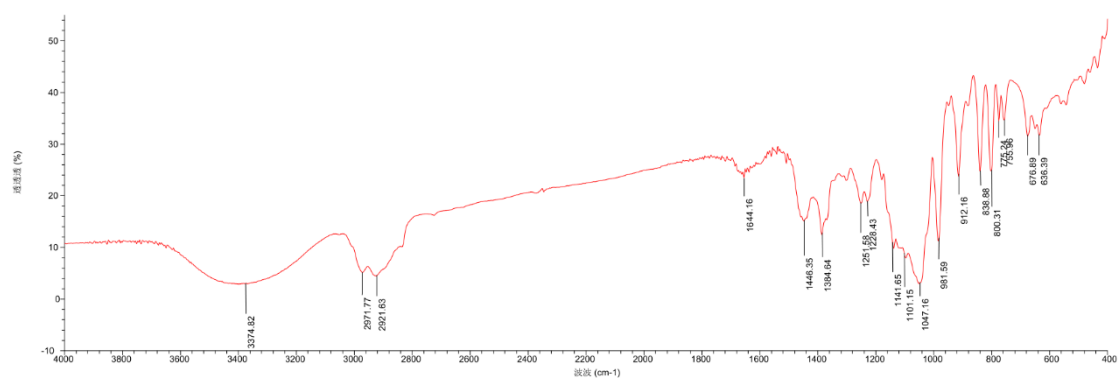


Figure S3: IR spectrum of **1**

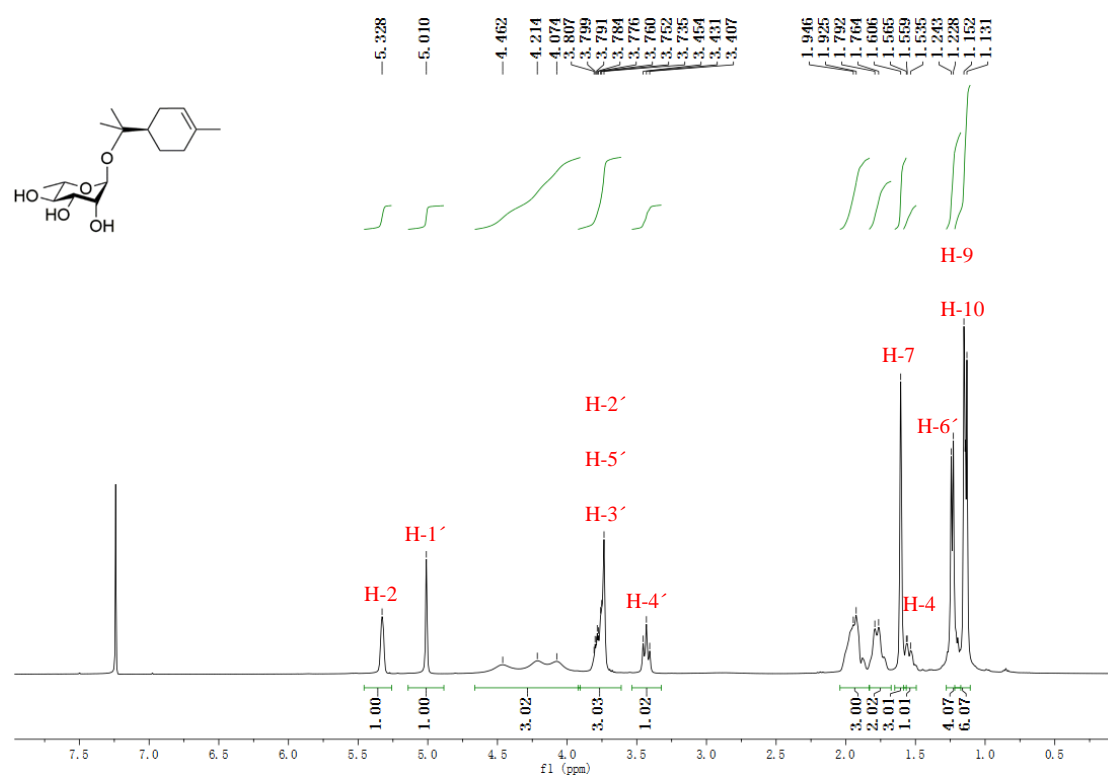


Figure S4: ¹H NMR spectrum (400 MHz) of **1** in CDCl₃

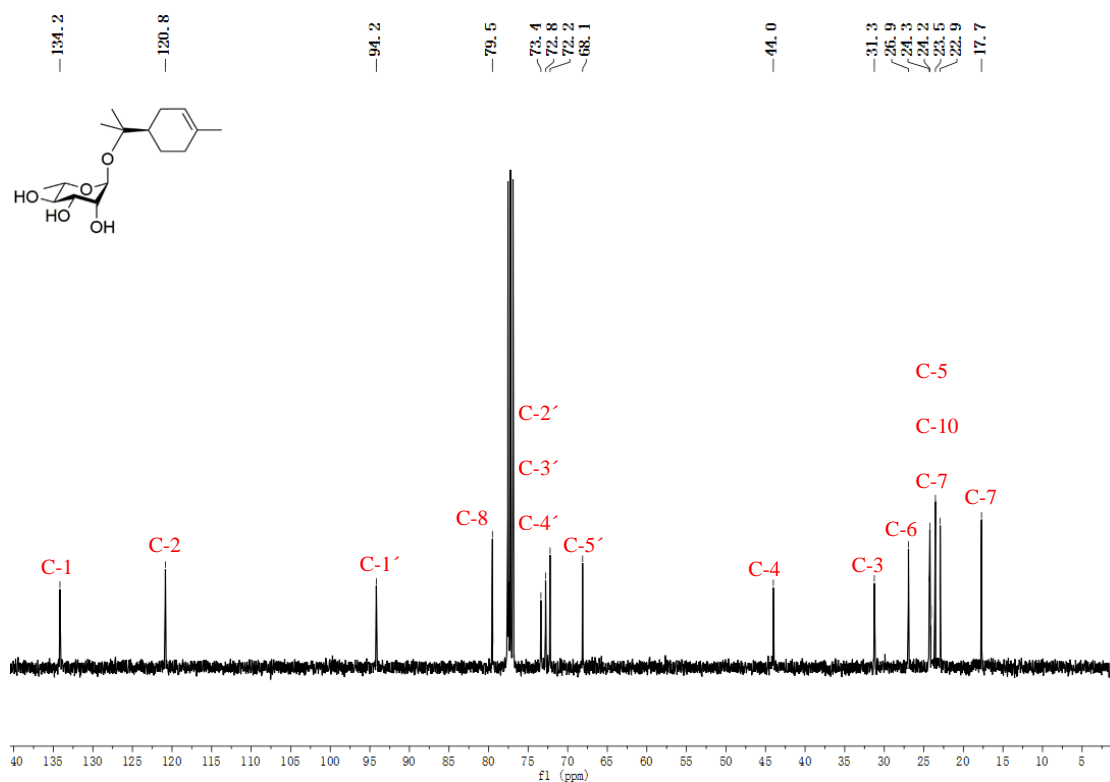


Figure S5: ¹³C NMR spectrum (100 MHz) of **1** in CDCl₃

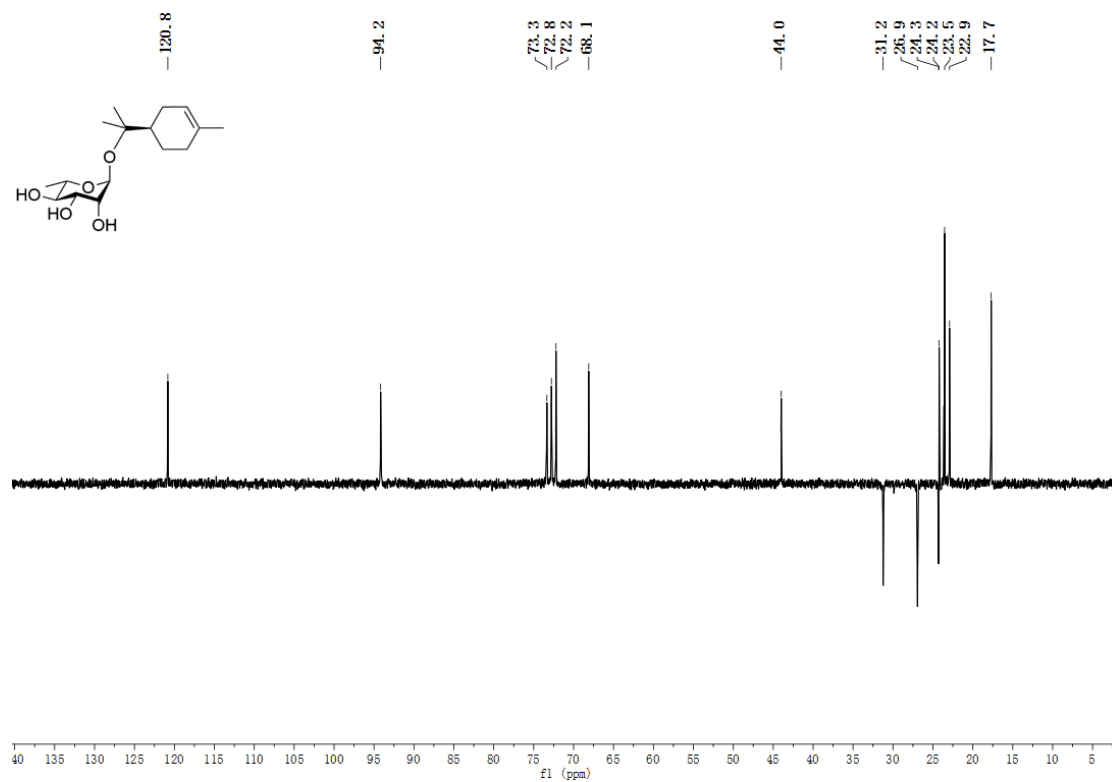


Figure S6: DEPT 135 spectrum of **1** in CDCl_3

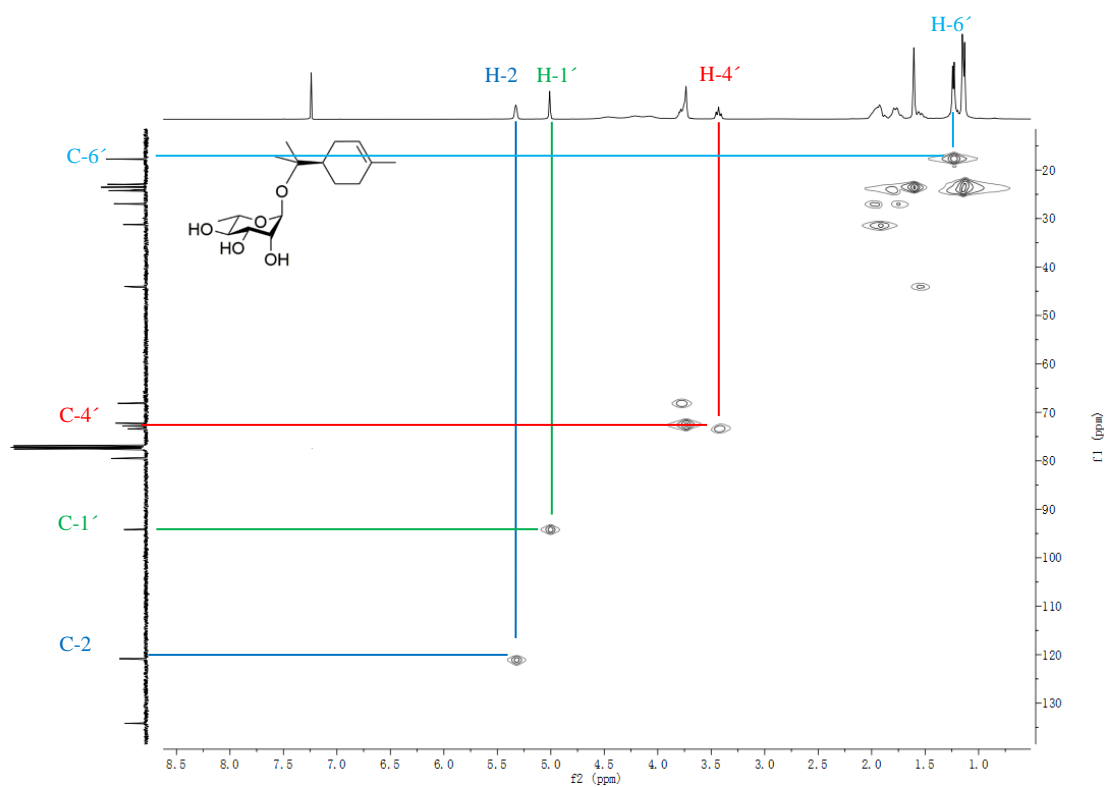


Figure S7: HSQC spectrum of **1** in CDCl₃

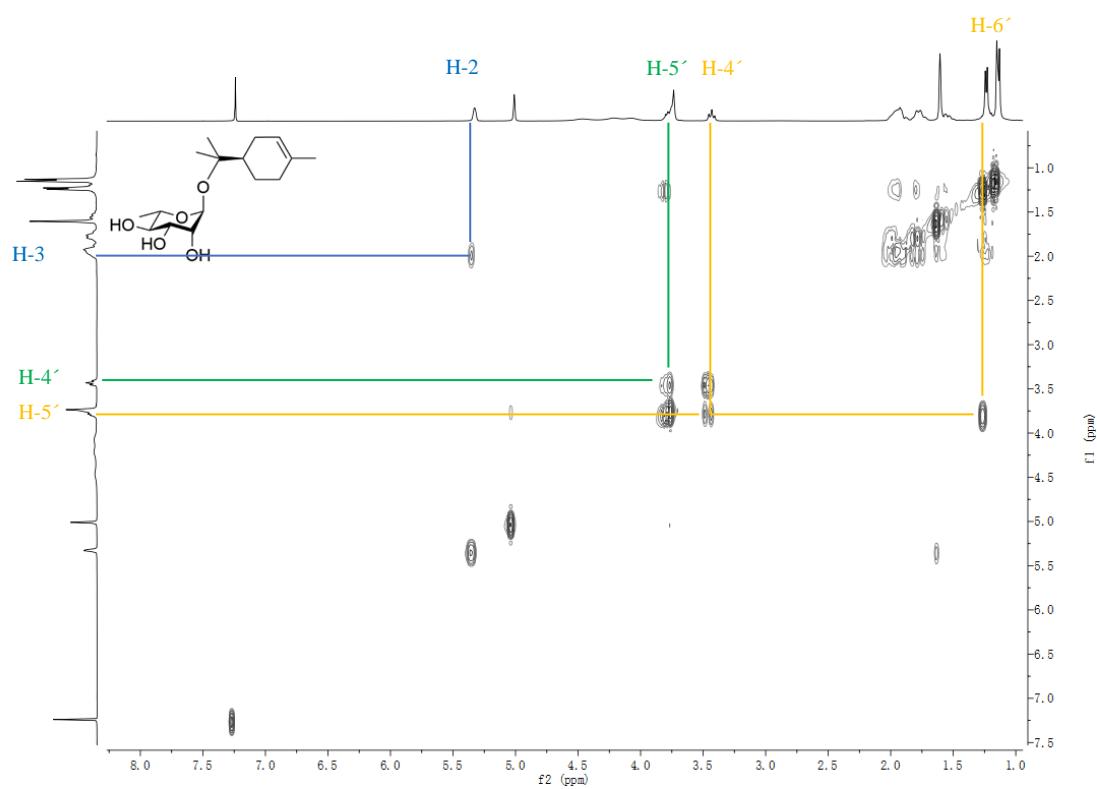


Figure S8: ^1H - ^1H COSY spectrum of **1** in CDCl_3

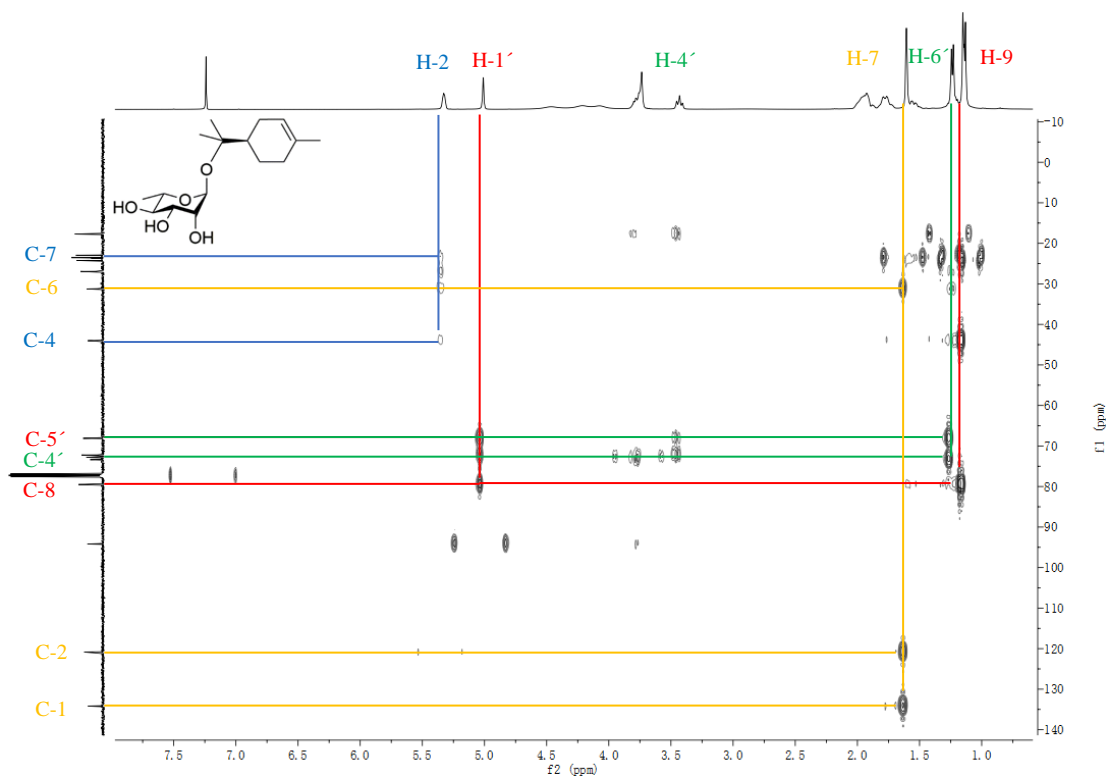


Figure S9: HMBC spectrum of **1** in CDCl₃

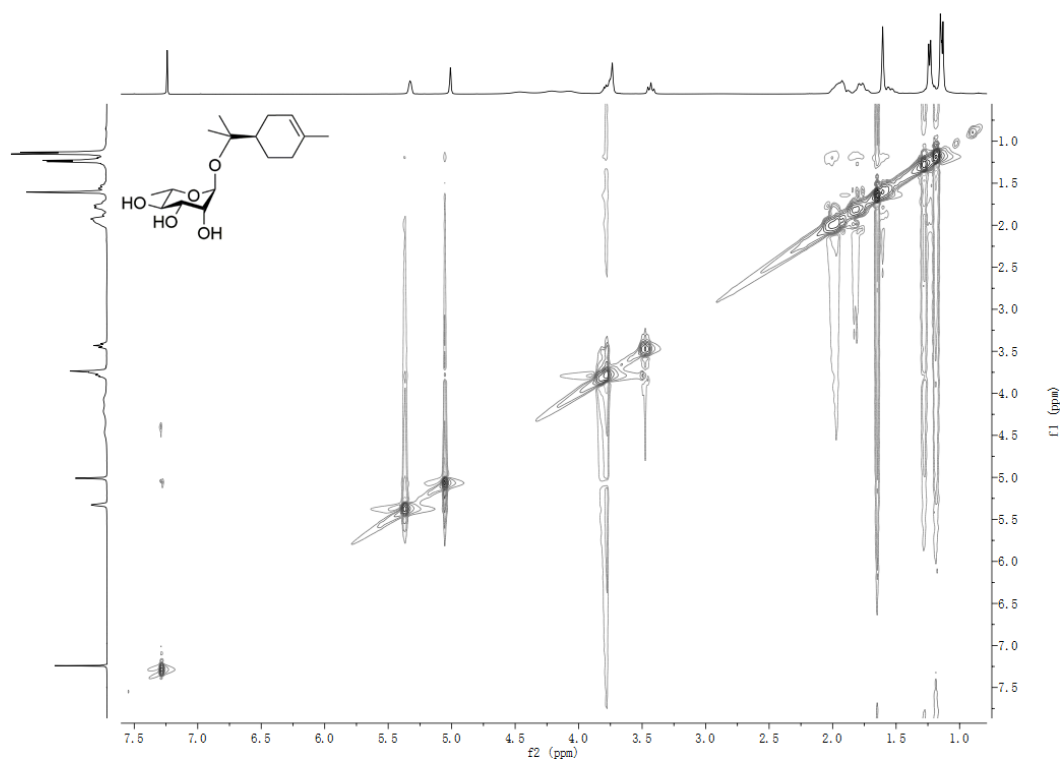


Figure S10: NOESY spectrum of **1** in CDCl₃

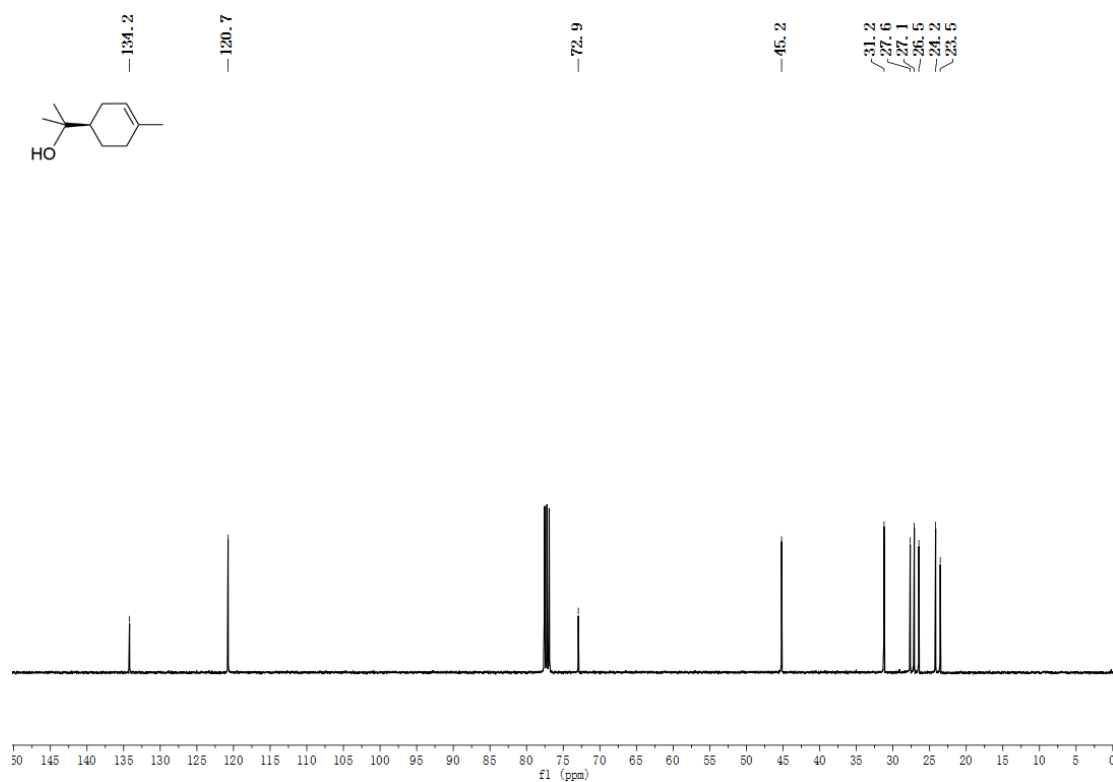


Figure S12: ¹³C NMR spectrum (100 MHz) of **1a** in CDCl₃

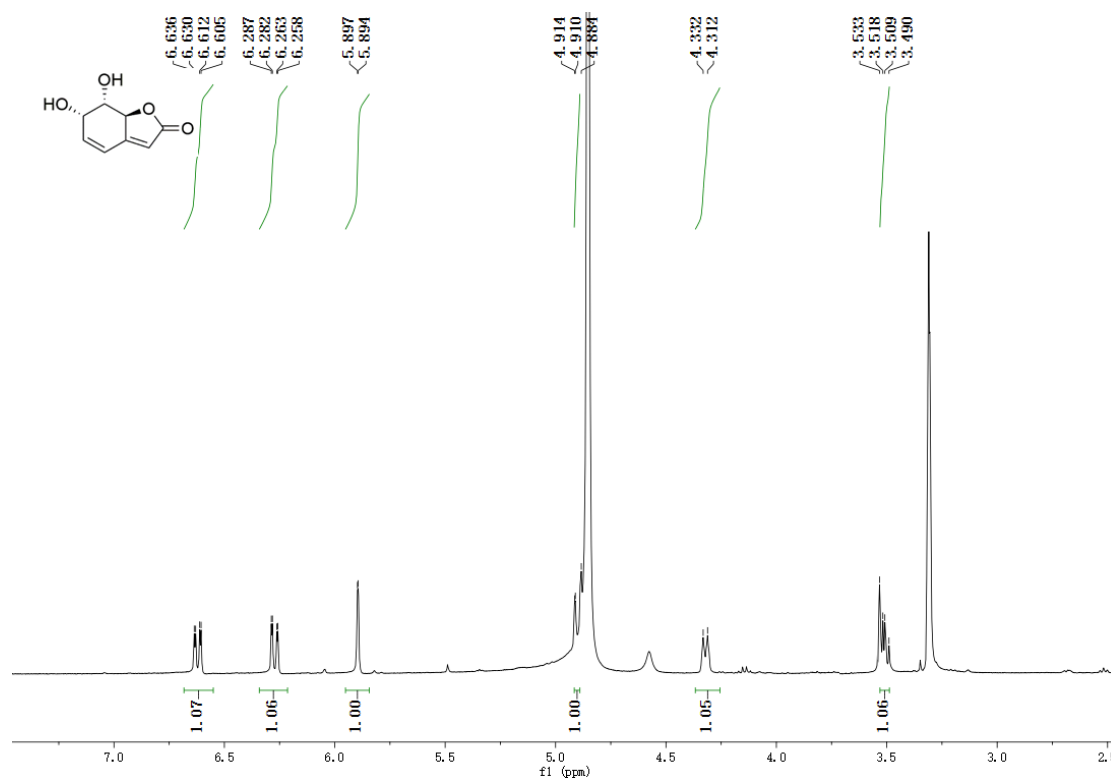


Figure S13: ^1H NMR spectrum (400 MHz) of **2** in CD_3OD

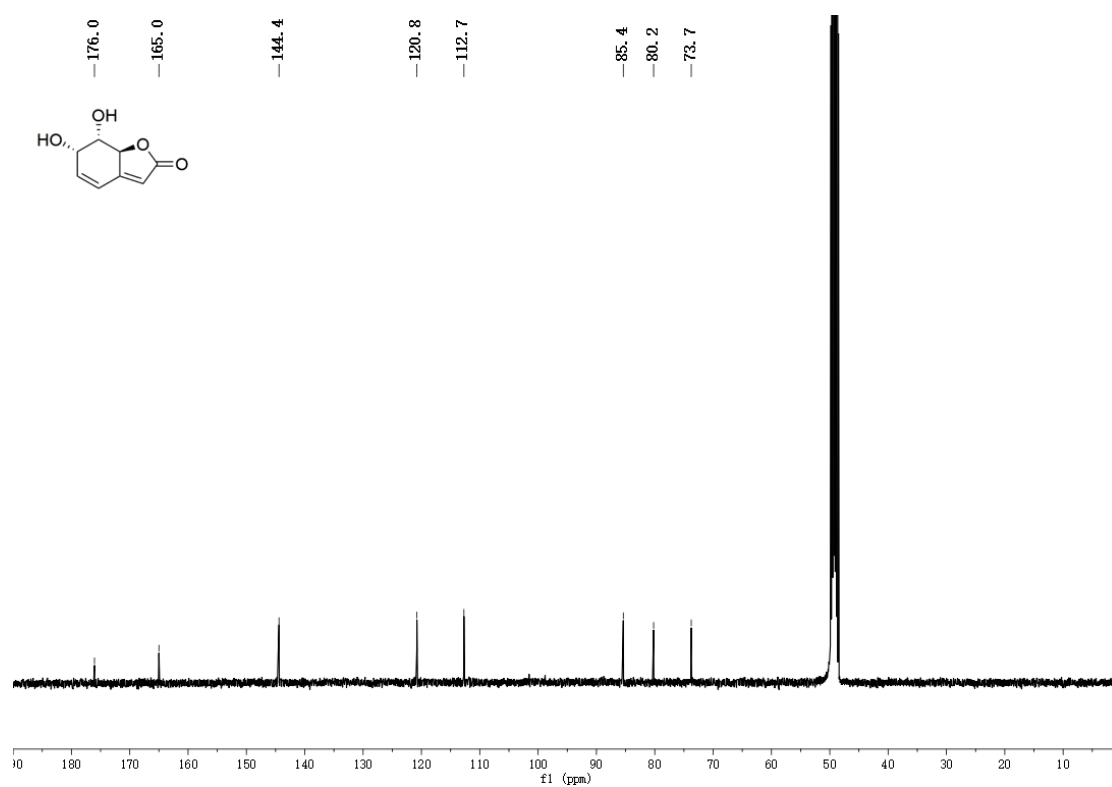


Figure S14: ¹³C NMR spectrum (100 MHz) of **2** in CD₃OD

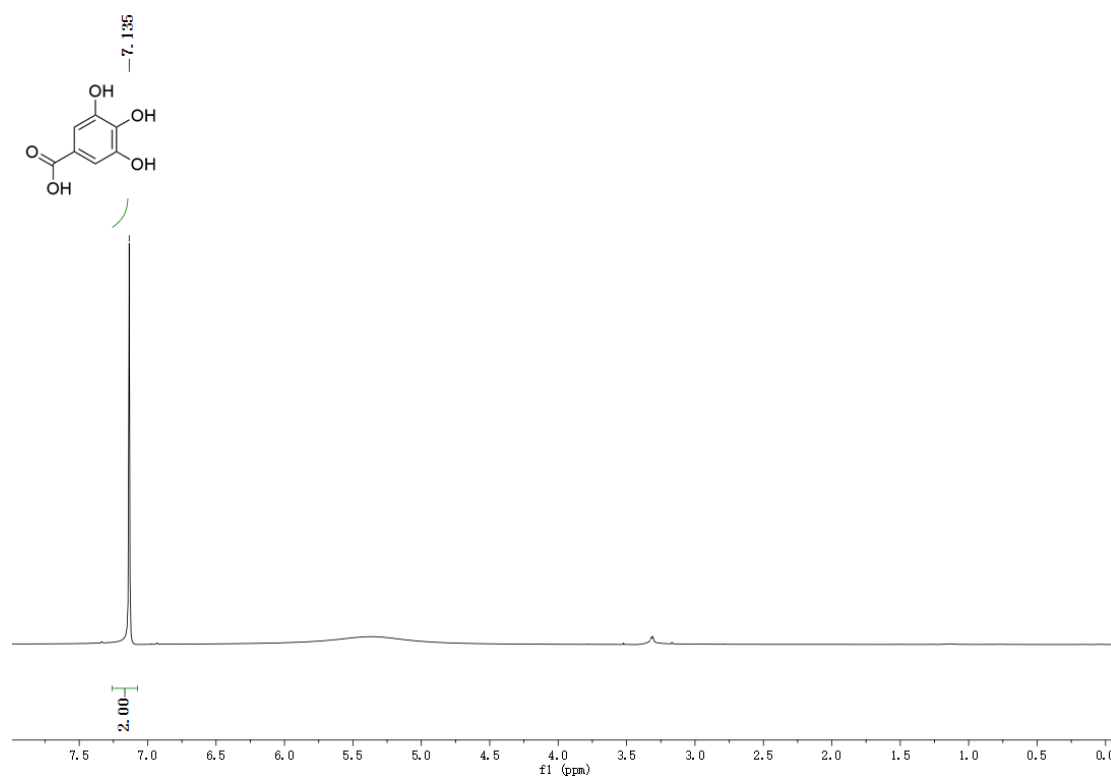


Figure S15: ^1H NMR spectrum (400 MHz) of **3** in CD_3OD

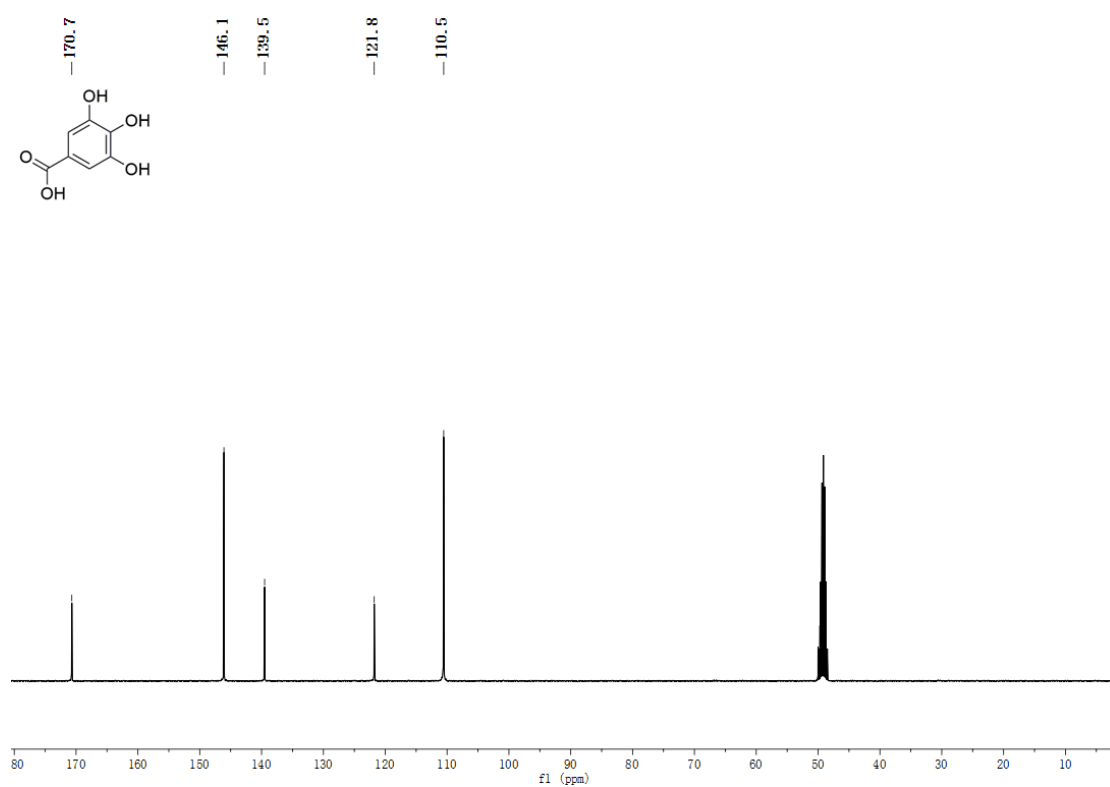


Figure S16: ¹³C NMR spectrum (100 MHz) of **3** in CD₃OD

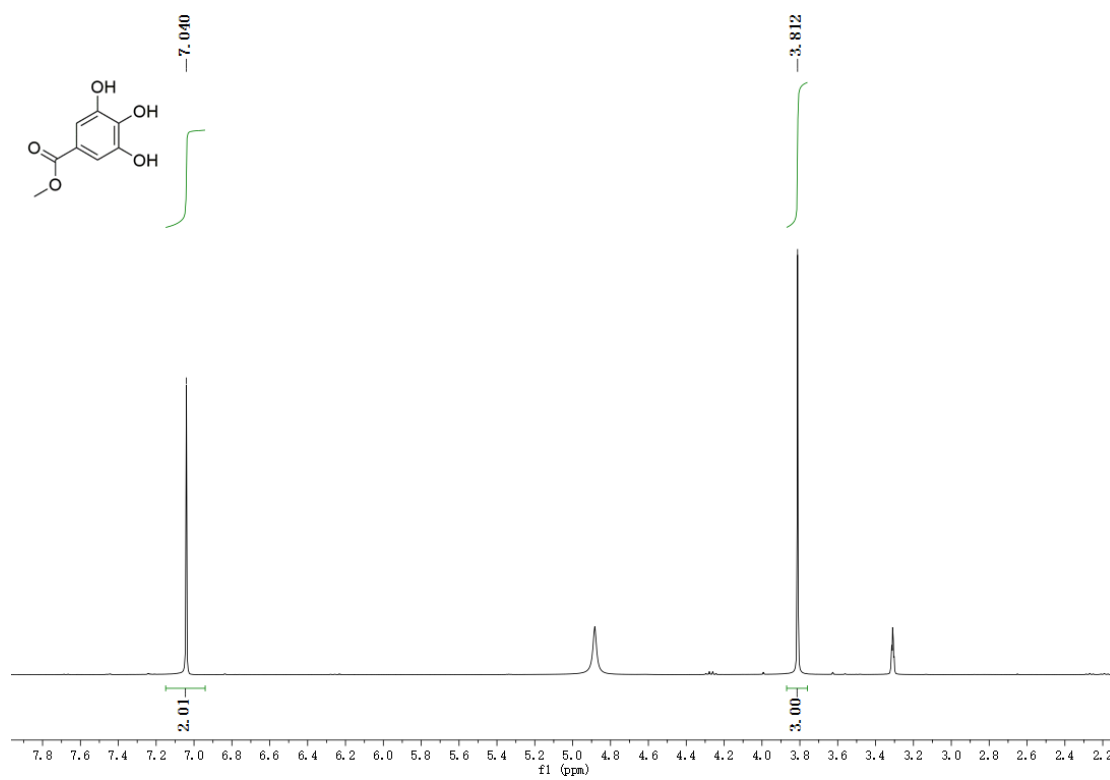


Figure S17: ^1H NMR spectrum (400 MHz) of **4** in CD_3OD

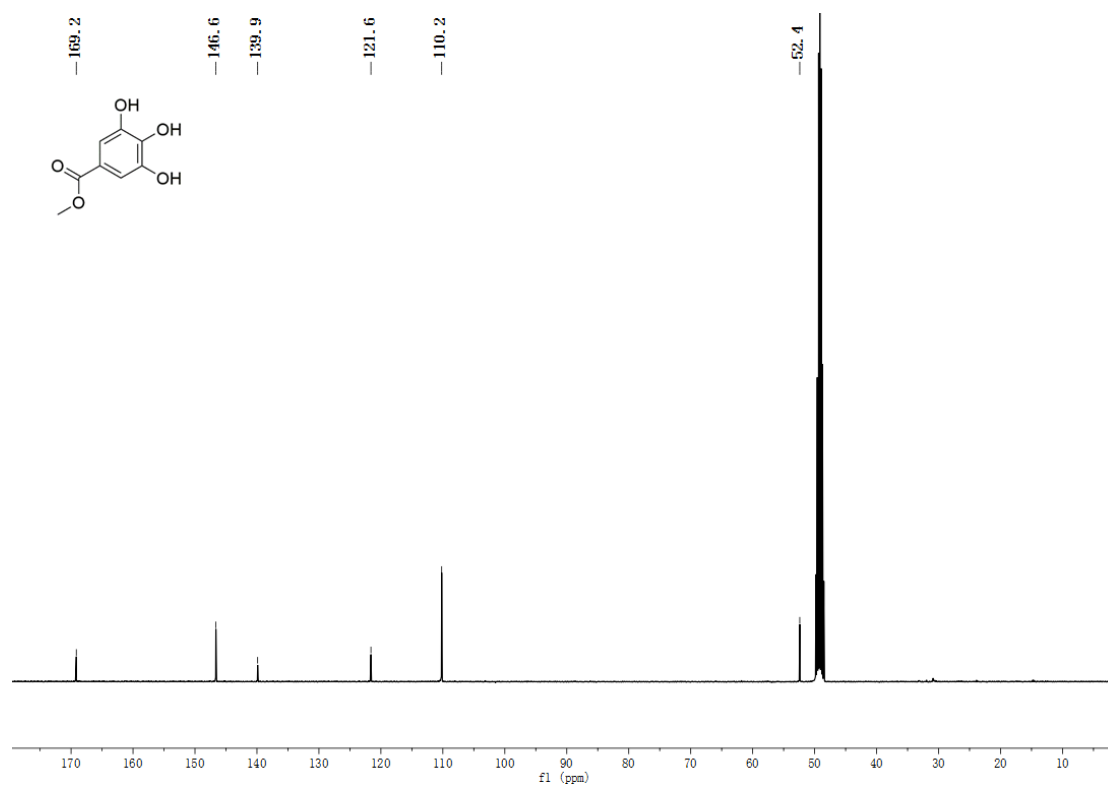


Figure S18: ^{13}C NMR spectrum (100 MHz) of **4** in CD_3OD

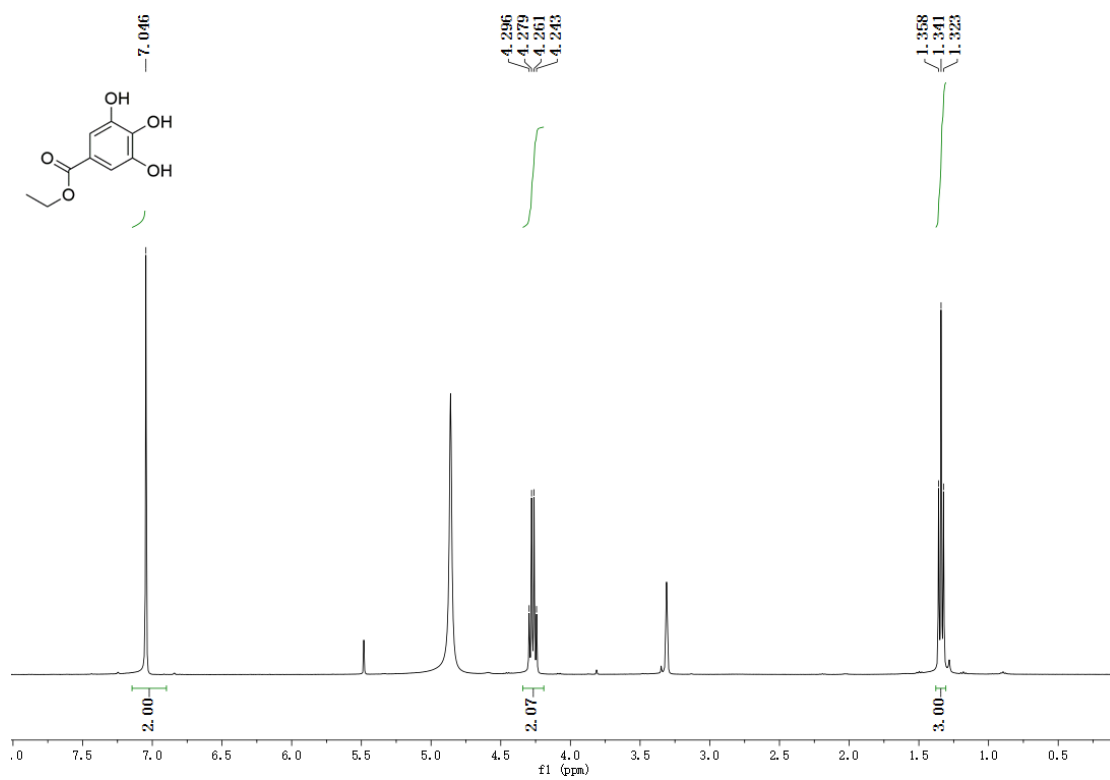


Figure S19: ¹H NMR spectrum (400 MHz) of **5** in CD₃OD

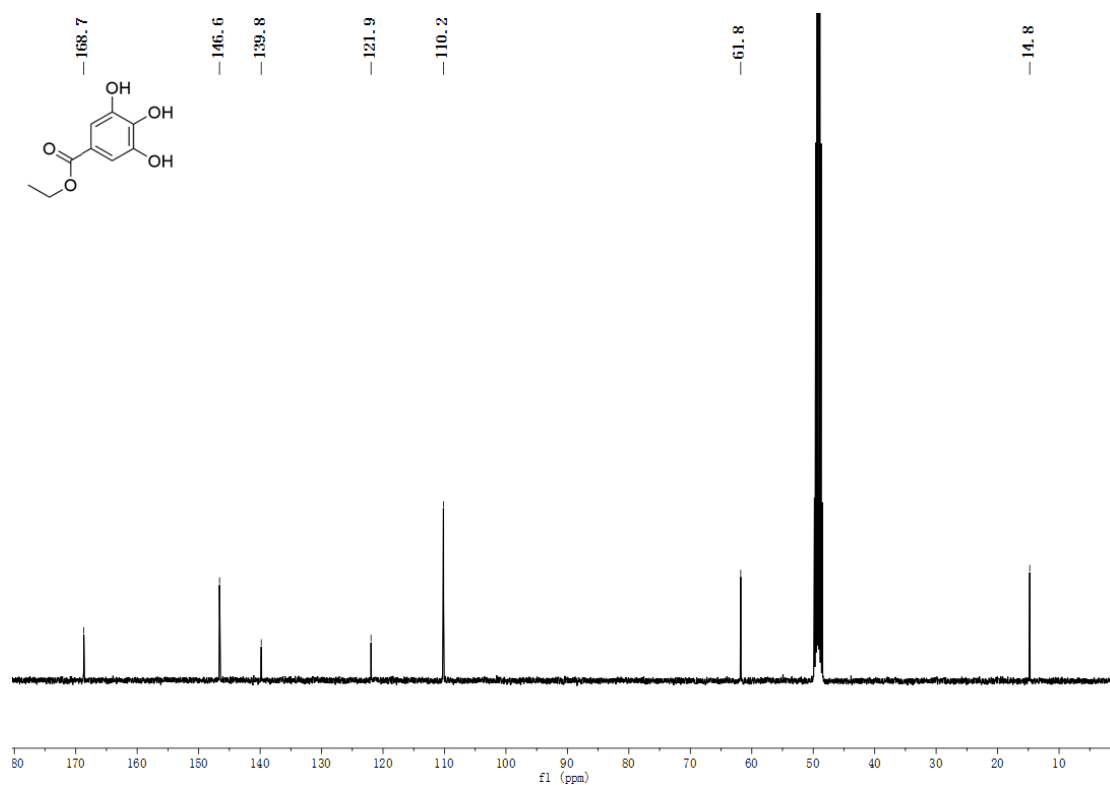


Figure S20: ¹³C NMR spectrum (100 MHz) of **5** in CD₃OD

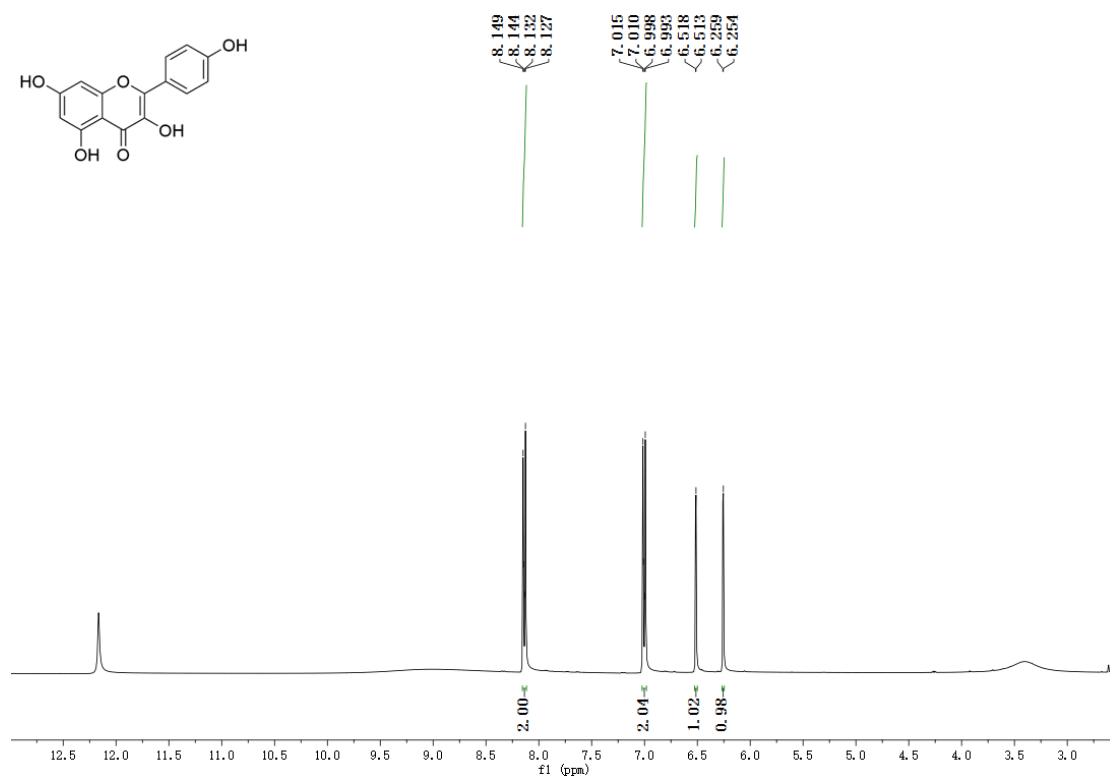


Figure S21: ¹H NMR spectrum (400 MHz) of **6** in CD₃COCD₃

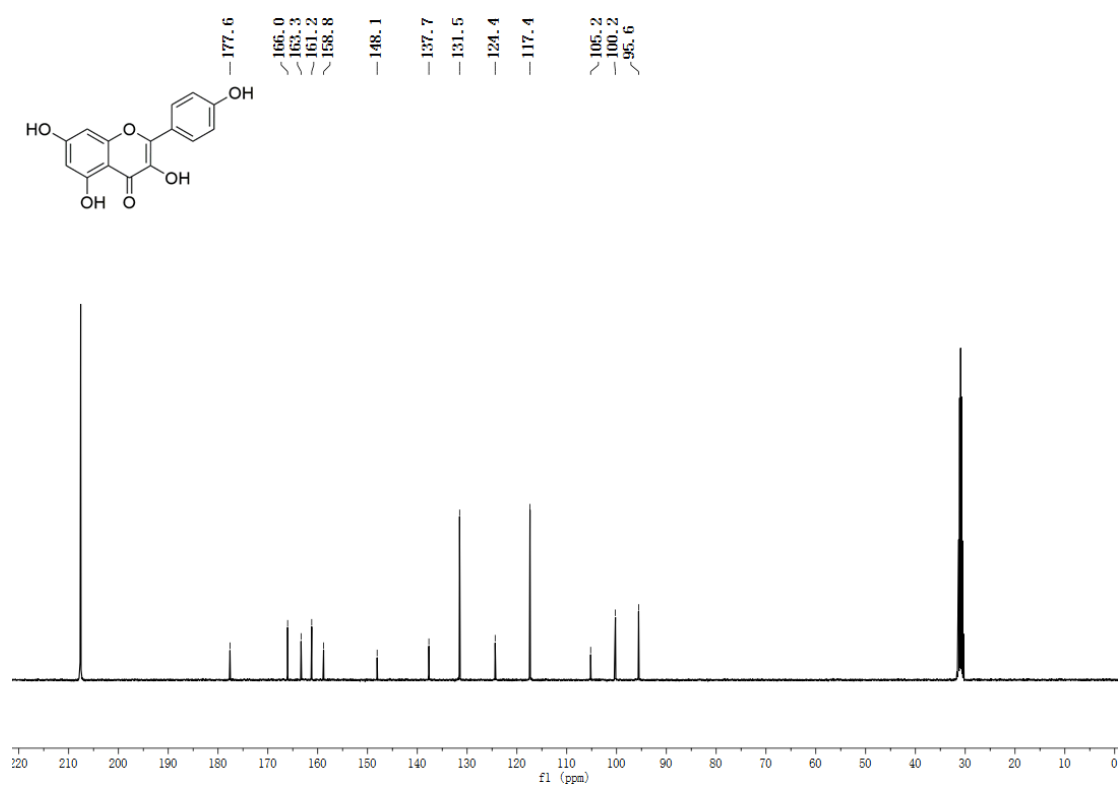


Figure S22: ^{13}C NMR spectrum (100 MHz) of **6** in CD_3COCD_3

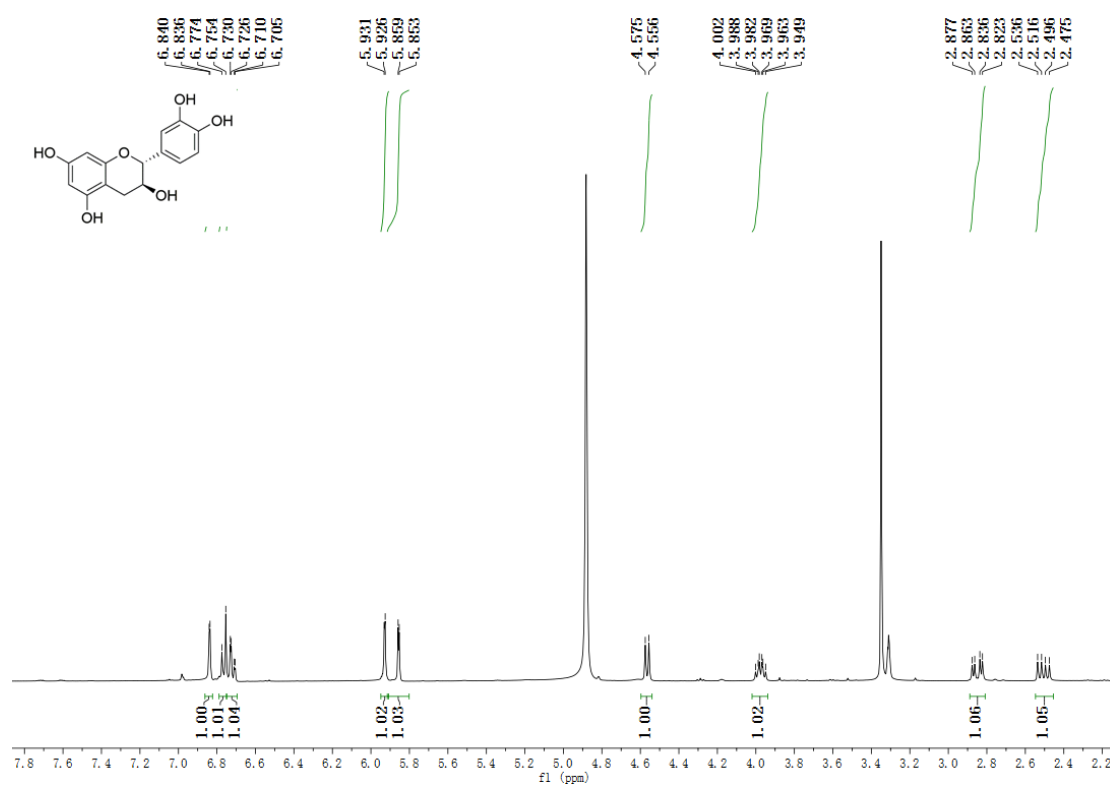


Figure S23: ¹H NMR spectrum (400 MHz) of 7 in CD₃OD

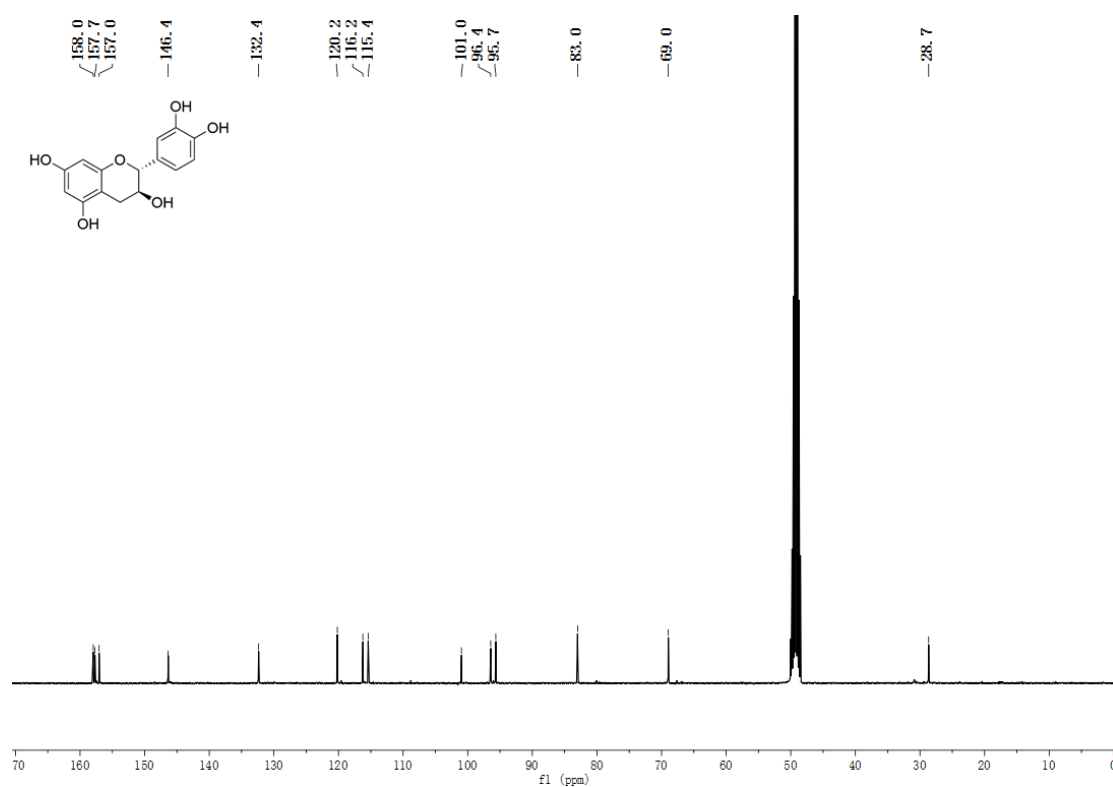


Figure S24: ^{13}C NMR spectrum (100 MHz) of **7** in CD_3OD

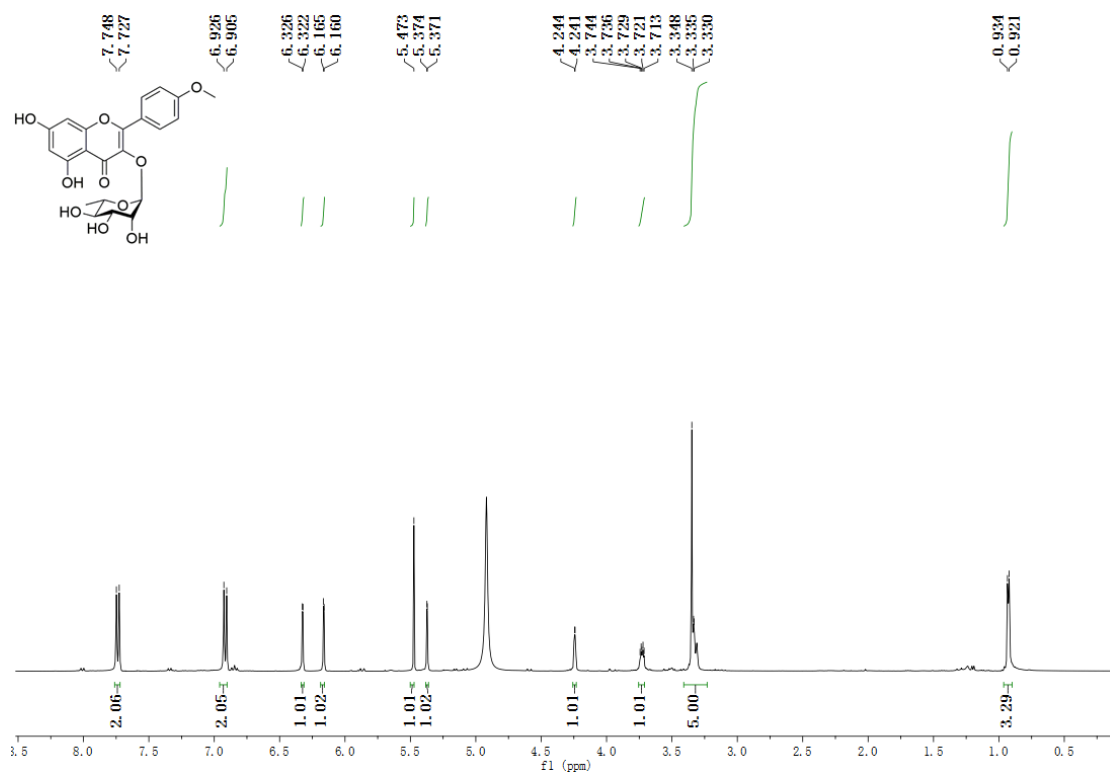


Figure S25: ¹H NMR spectrum (400 MHz) of **8** in CD₃OD

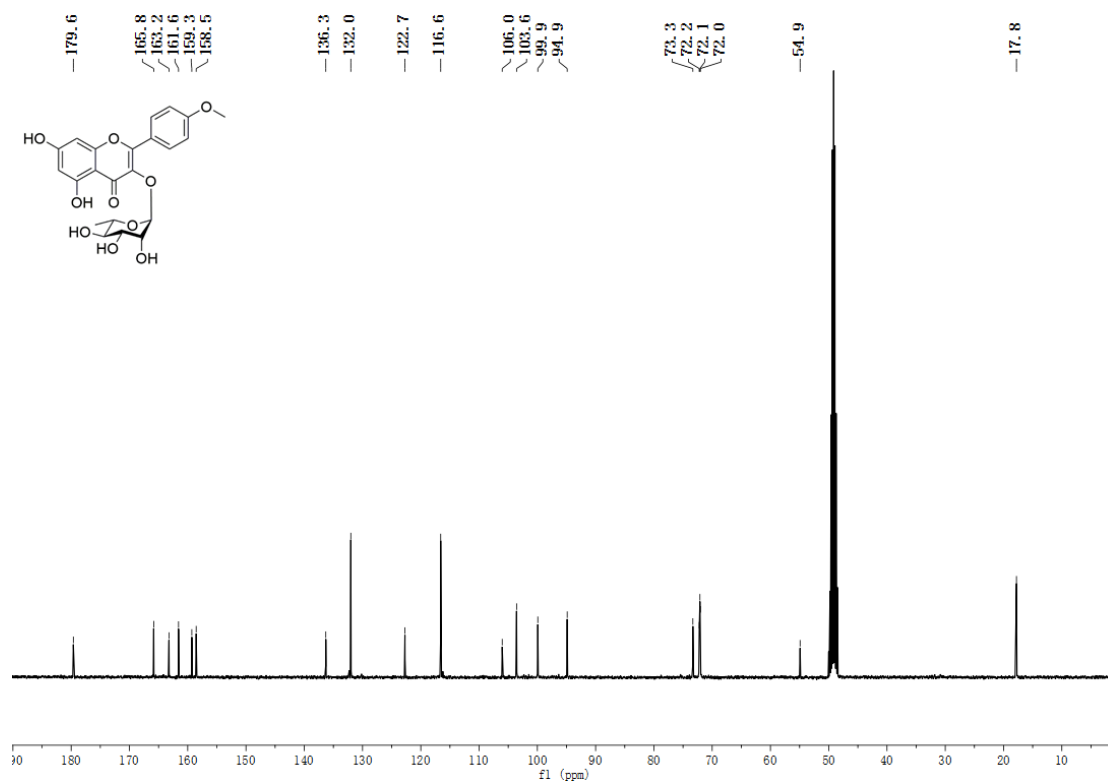


Figure S26: ¹³C NMR spectrum (100 MHz) of **8** in CD₃OD

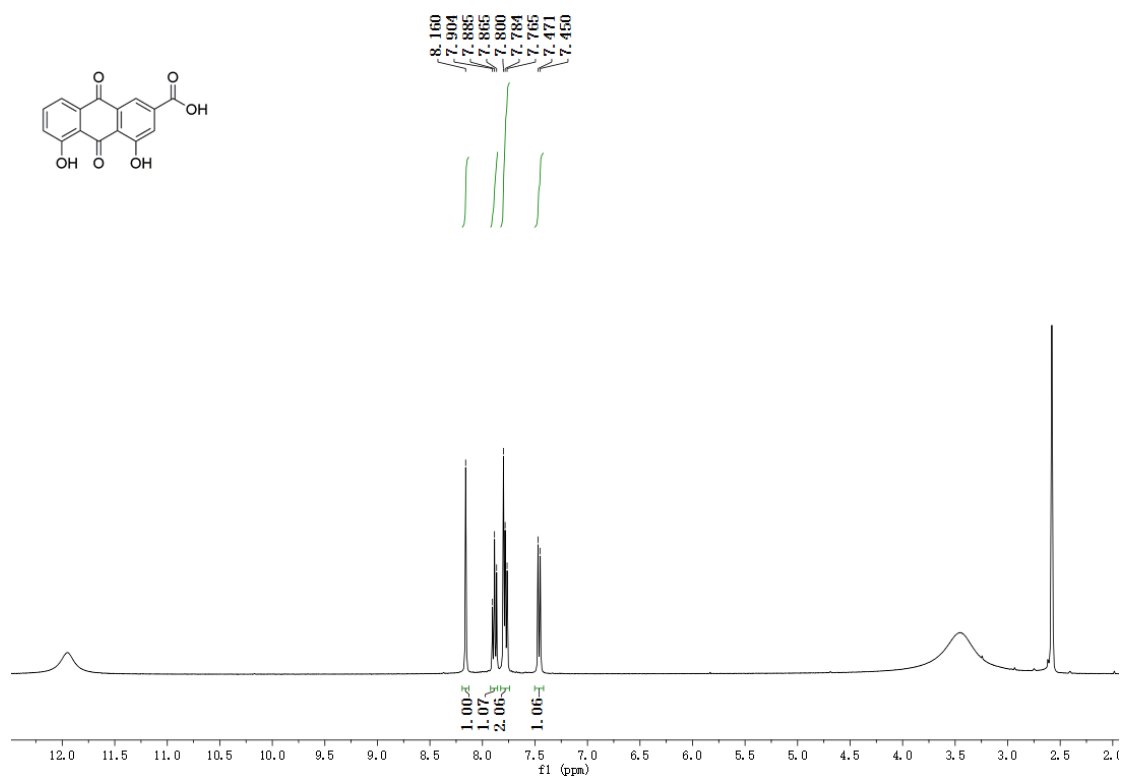


Figure S27: ¹H NMR spectrum (400 MHz) of **9** in DMSO-*d*₆

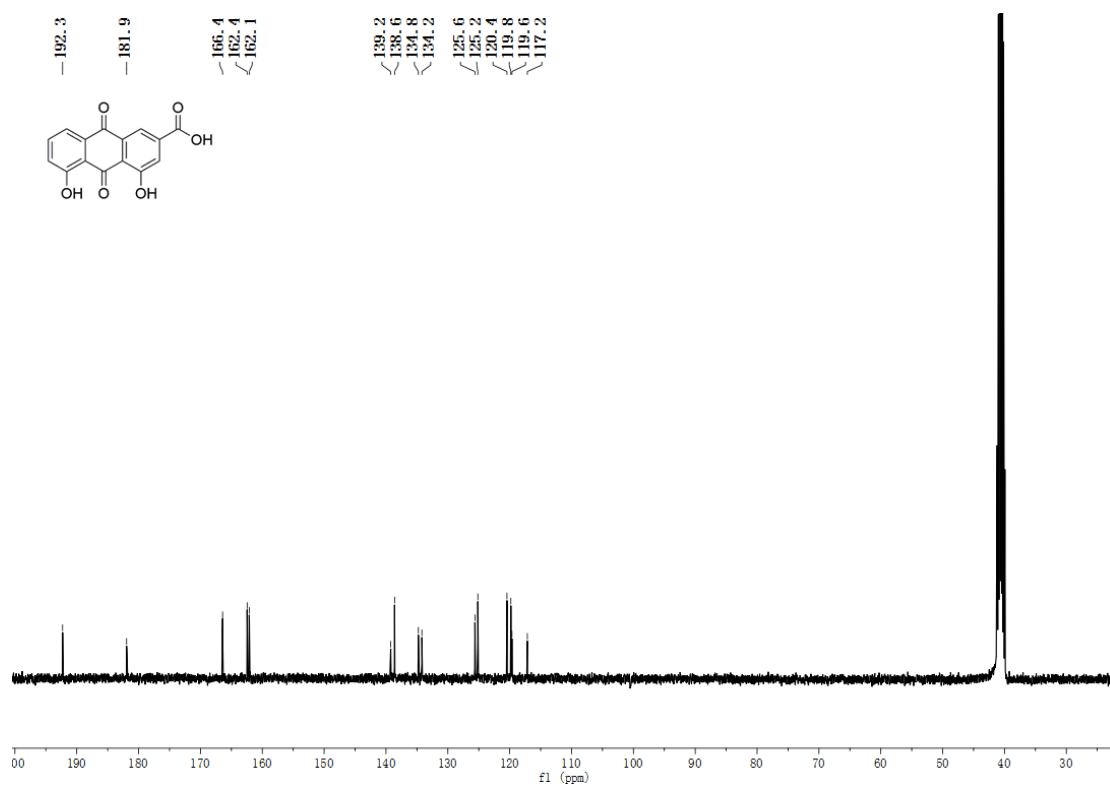


Figure S28: ^{13}C NMR spectrum (100 MHz) of **9** in $\text{DMSO}-d_6$

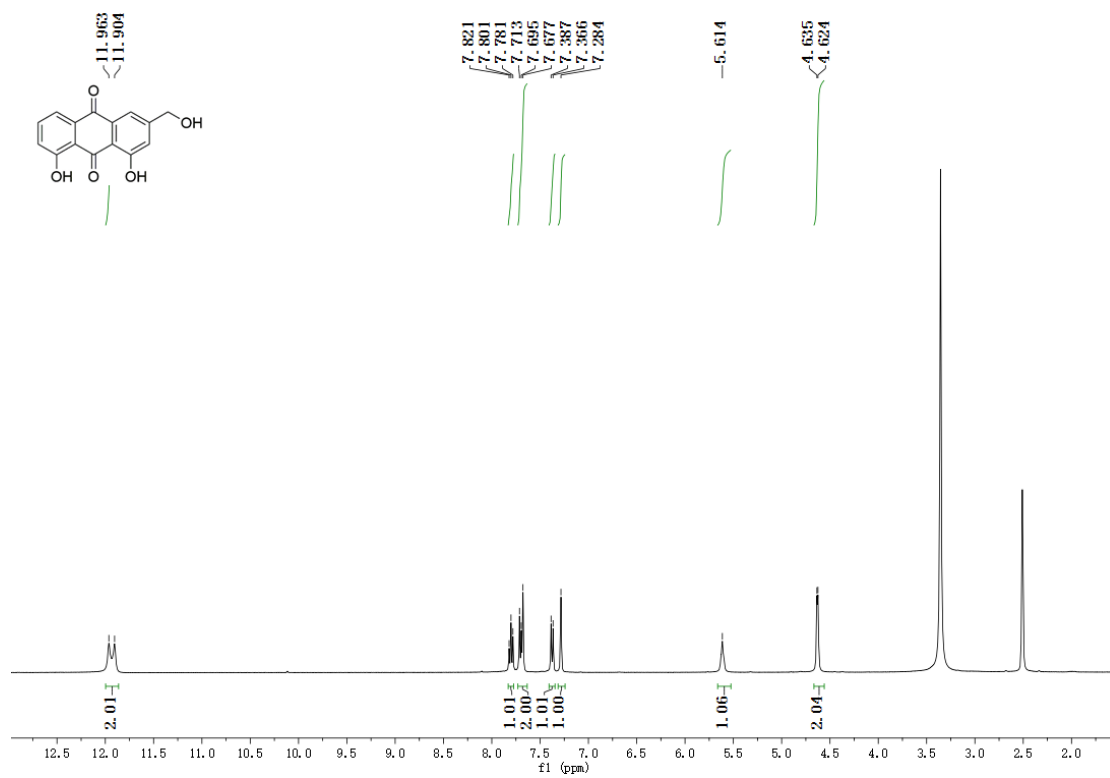


Figure S29: ^1H NMR spectrum (400 MHz) of **10** in $\text{DMSO}-d_6$

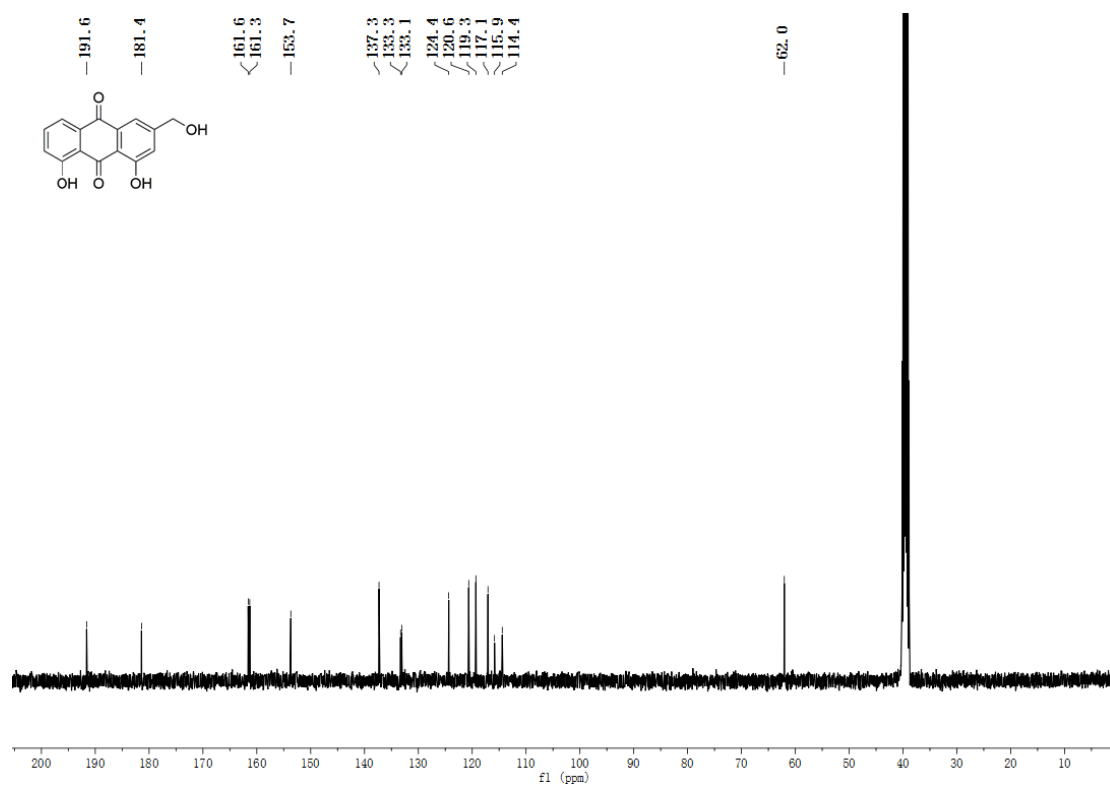


Figure S30: ¹³C NMR spectrum (100 MHz) of **10** in DMSO-*d*₆

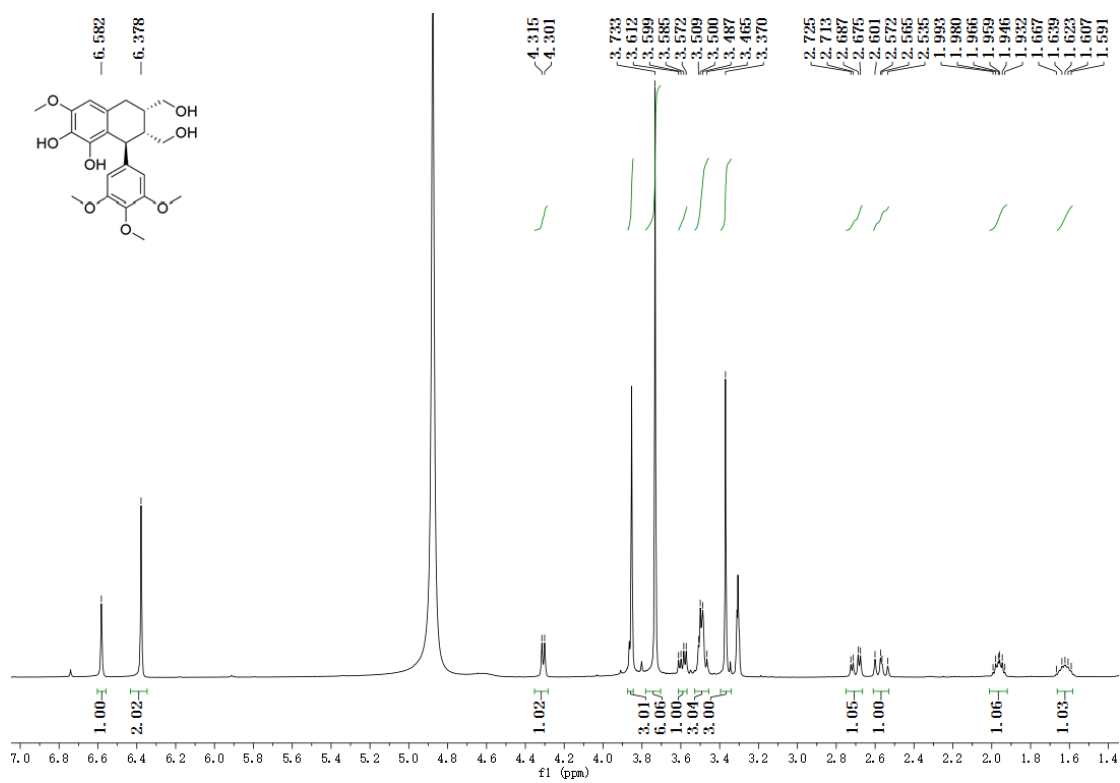


Figure S31: ¹H NMR spectrum (400 MHz) of **11** in CD₃OD

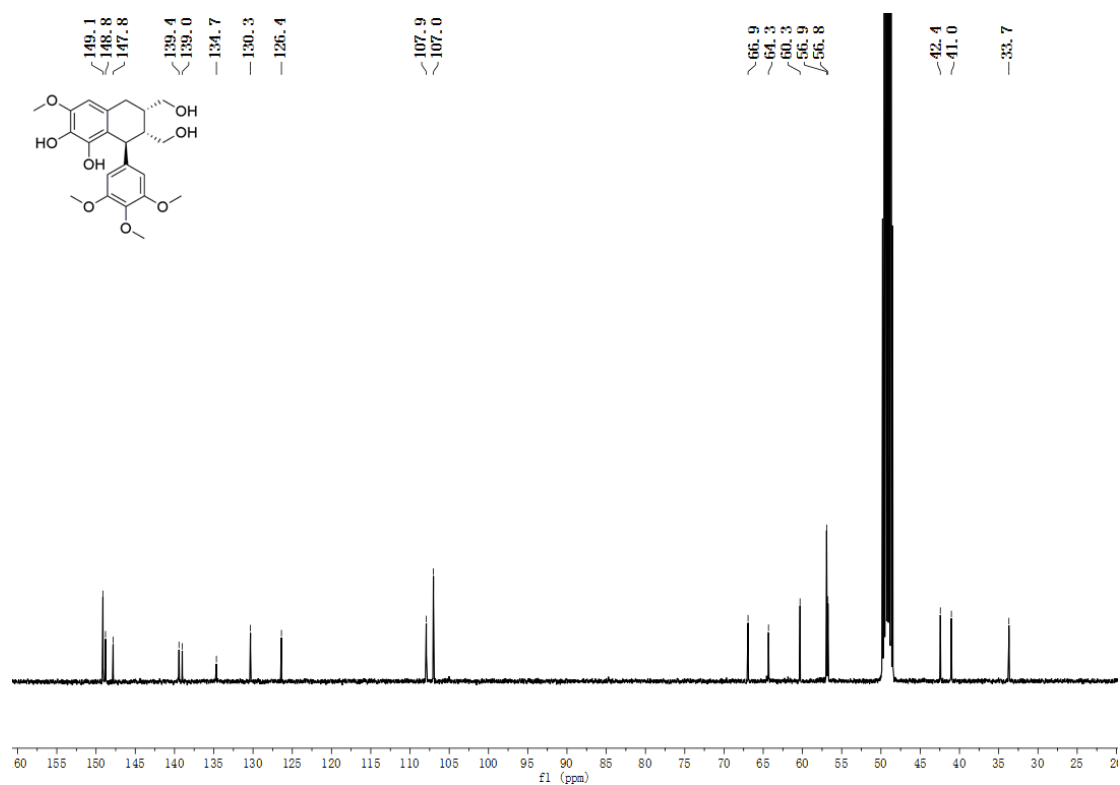


Figure S32: ^{13}C NMR spectrum (100 MHz) of **11** in CD_3OD