Electronic Supplementary Information

Title: Applanatumols A and B, Meroterpenoids with Unprecedented Skeletons from *Ganoderma applanatum*

Authors: Qi Luo [a,b], Lei Di [a], Xiao-Hua Yang [a,c], and Yong-Xian Cheng*[a]

Addresses: [a] *State Key Laboratory of Phytochemistry and Plant Resources in West China, Kunming Institute of Botany, Chinese Academy of Sciences, Kunming 650204, People's Republic of China*

[b] *Graduate University of Chinese Academy of Sciences, Beijing 100039, People's Republic of China*

[c] *Guangdong Pharmaceutical University, Guangzhou 510006, People's Republic of China*

Corresponding author contact details: *Tel/Fax: 86-871-65223048. E-mail: yxcheng@mail.kib.ac.cn (Y.-X.C.);

Contents of Supporting Information

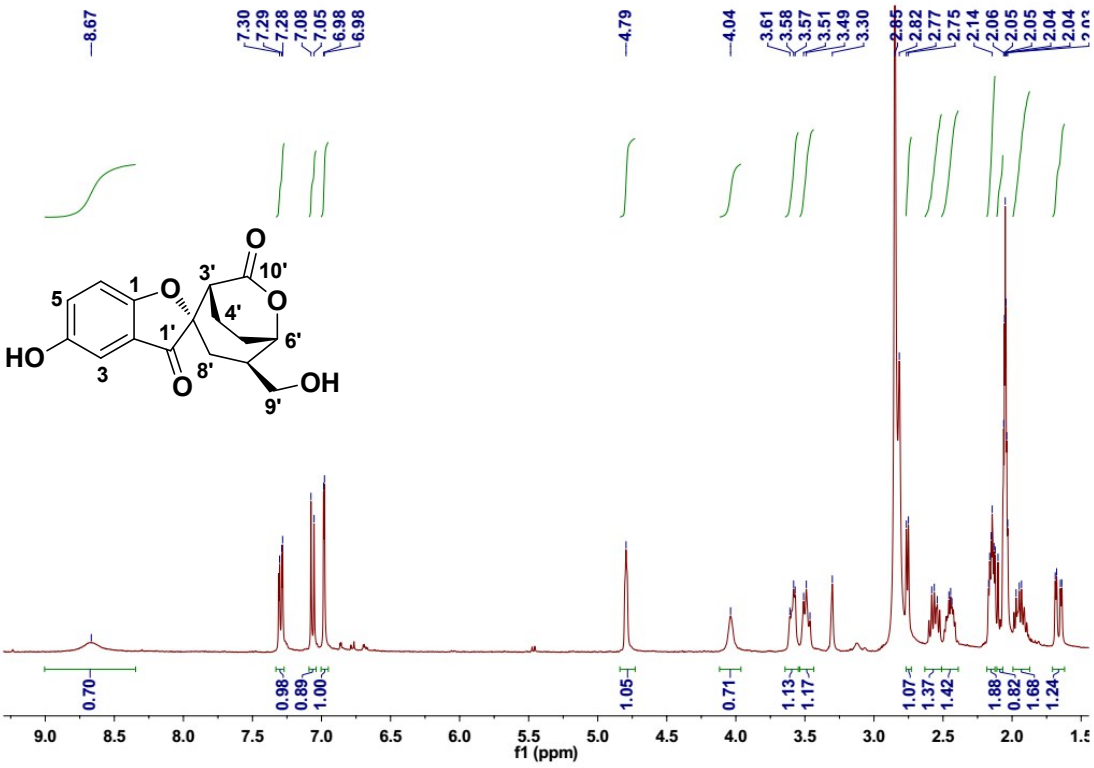


Figure S1. ^{1}H NMR spectrum of **1** in acetone-d_6

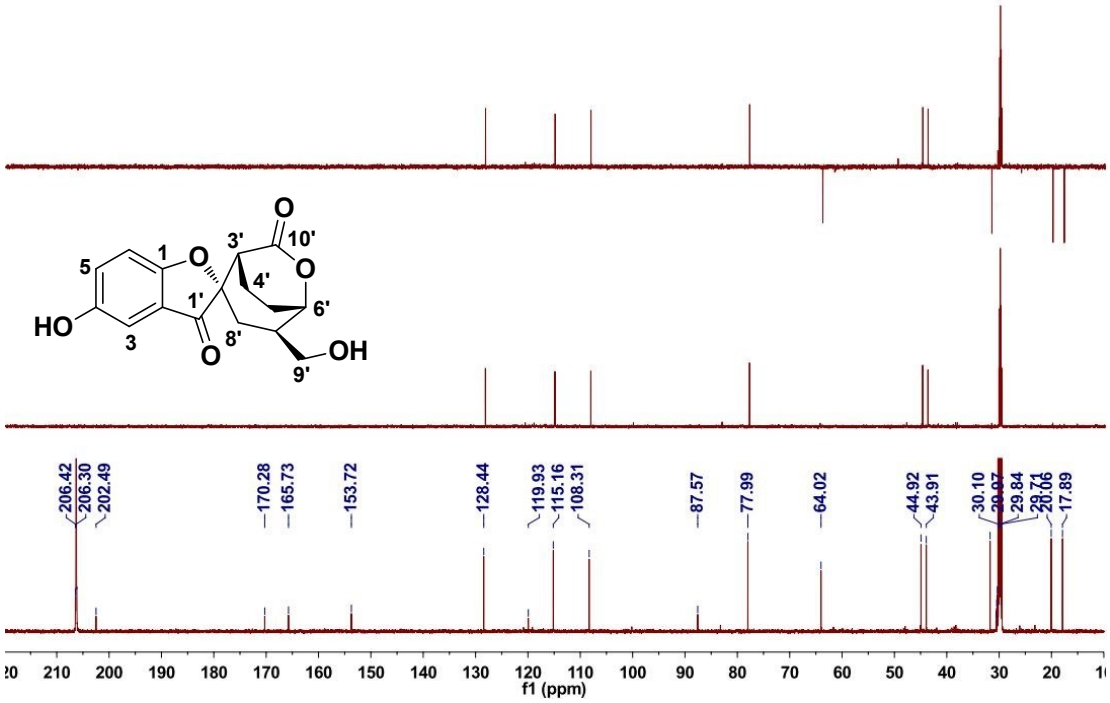


Figure S2. ^{13}C NMR and DEPT spectra of **1** in acetone-d_6

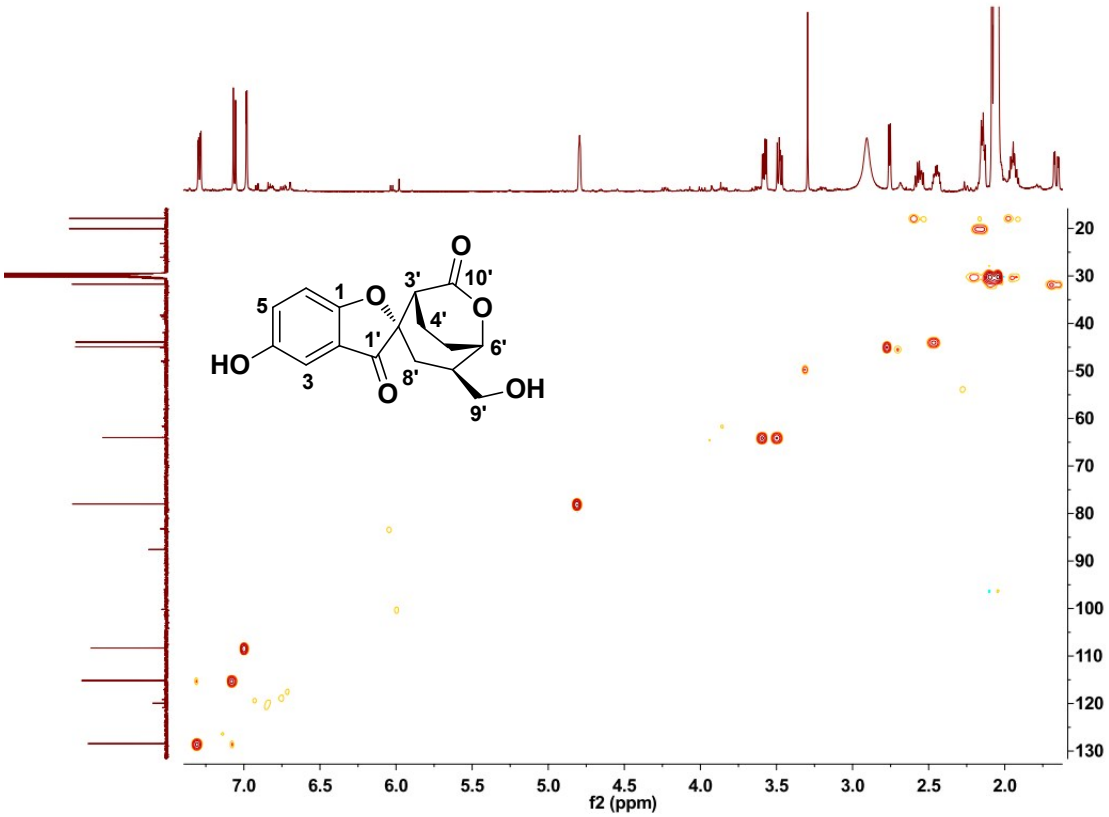


Figure S3. HSQC spectrum of **1** in acetone-d_6

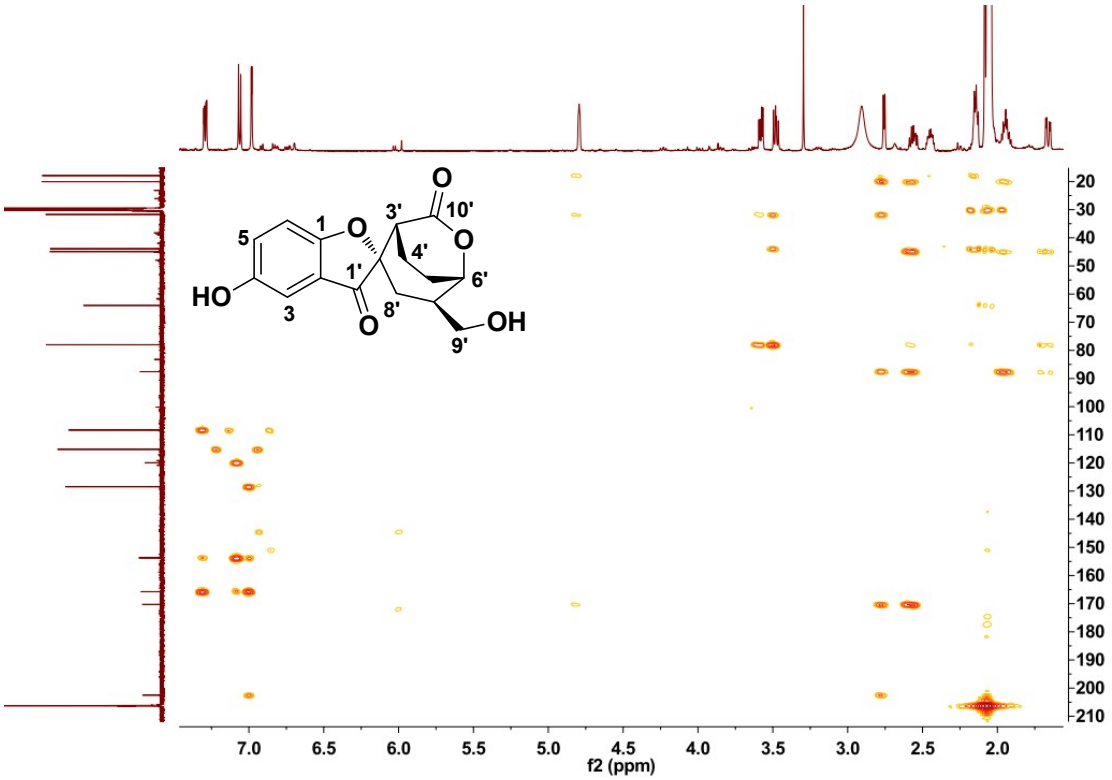


Figure S4. HMBC spectrum of **1** in acetone-d_6

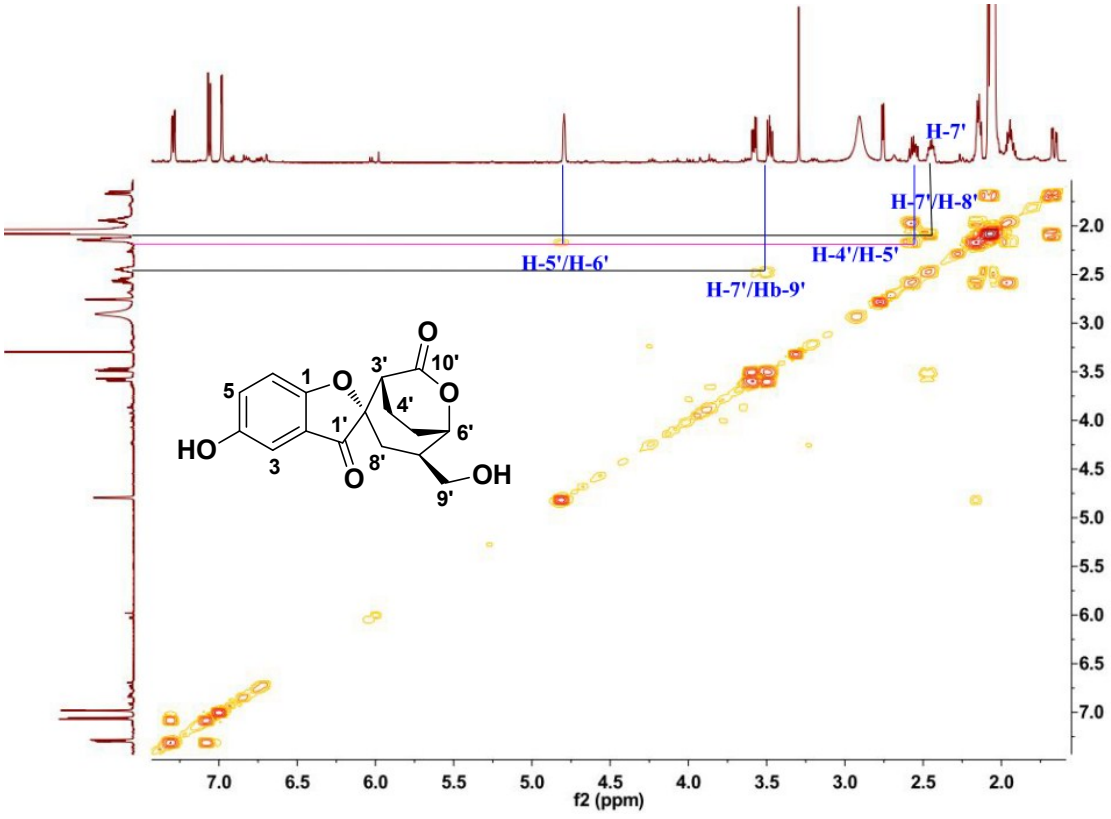
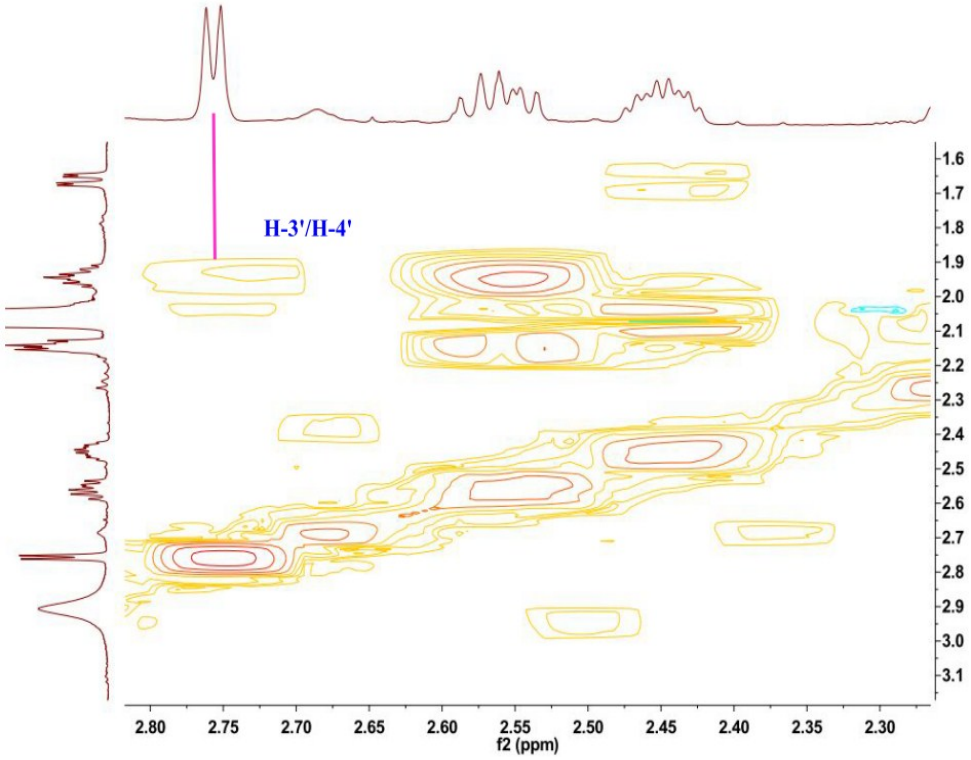
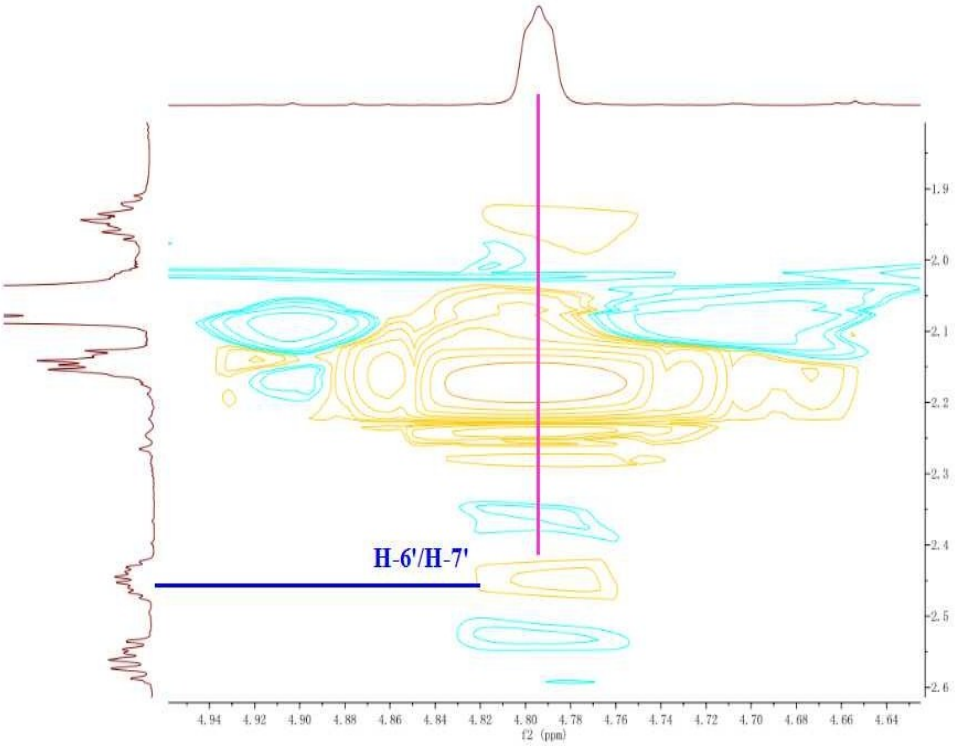


Figure S5. ^{1}H-^{1}H COSY spectrum of **1** in acetone-d_6



Enlarged ^{1}H-^{1}H COSY spectrum of **1** (up-field region) in acetone-d_6



Enlarged ^{1}H-^{1}H COSY spectrum of **1** (correlation of H-6′/H-7′) in acetone-d_6

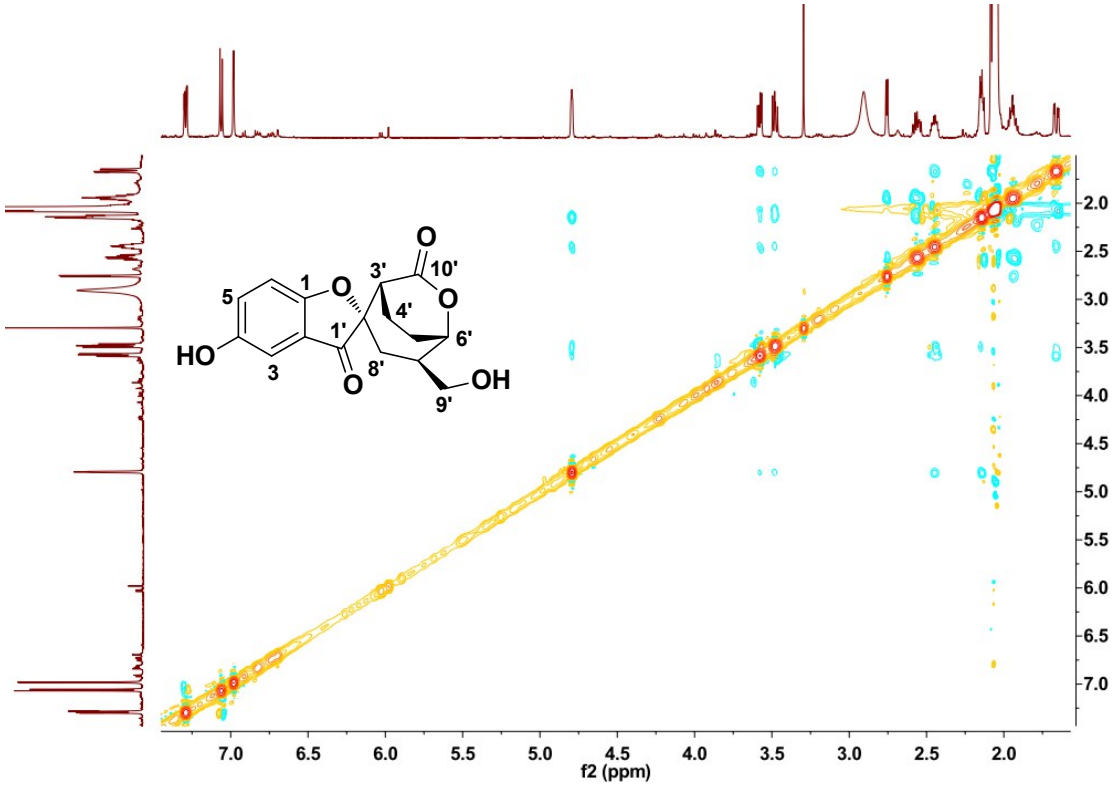
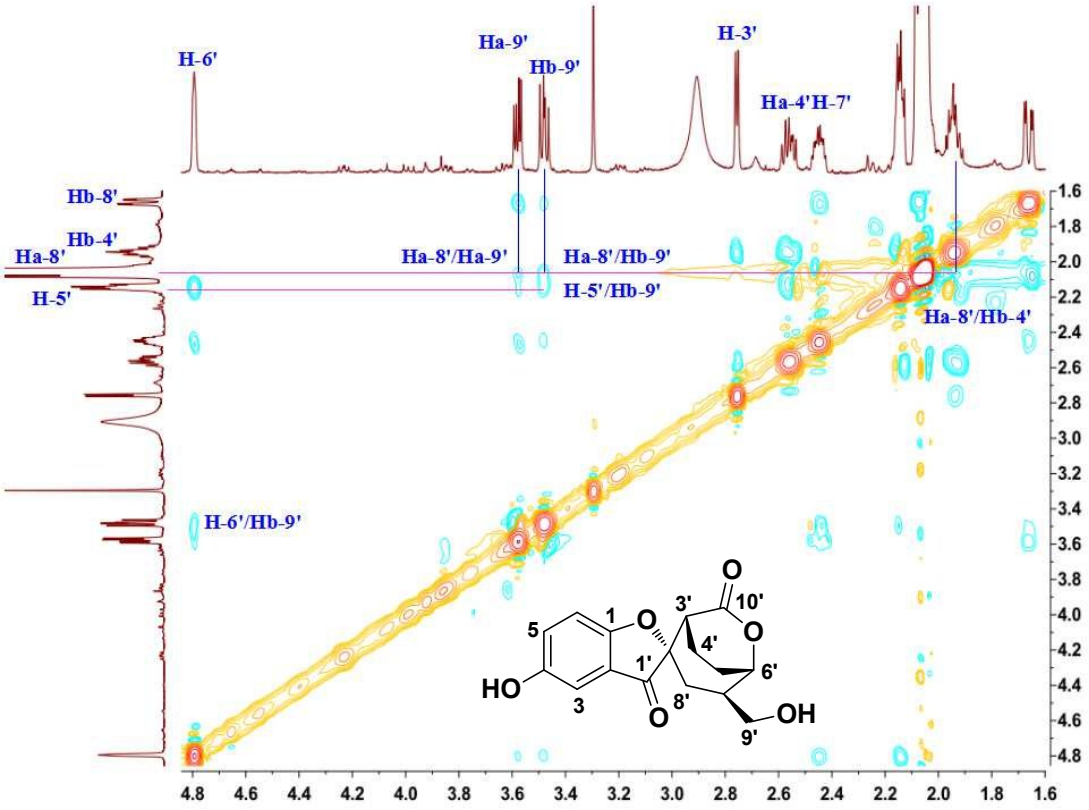


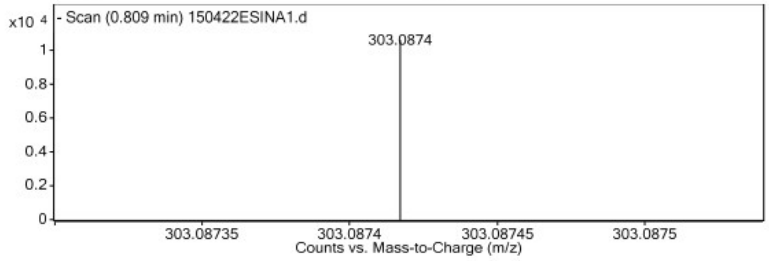
Figure S6. ROESY spectrum of **1** in acetone-d_6



Enlarged ROESY spectrum of **1** (up-field region) in acetone-d_6

User Spectra

Fragmentor Voltage	Collision Energy	Ionization Mode
200	0	ESI



Peak List

m/z	z	Abund	Formula	Ion
112.9856		9775.27		
255.2332	1	24064.12		
265.1481	1	27694.44		
283.2641	1	11551.96		
303.0874	1	10578.56	C16 H15 O6	M-
309.1736	1	10301.15		
311.1691	1	43121.79		
325.1846	1	49304.18		
339.2001	1	20818.67		
1033.9881	1	77768.9		

Formula Calculator Element Limits

Element	Min	Max
C	0	200
H	0	400
O	1	10

Formula Calculator Results

Formula	CalculatedMass	CalculatedMz	Mz	Diff. (mDa)	Diff. (ppm)	DBE
C16 H15 O6	303.0869	303.0874	303.0874	0.0	-0.1	9.5000

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Figure S7. HRESIMS spectrum of **1**

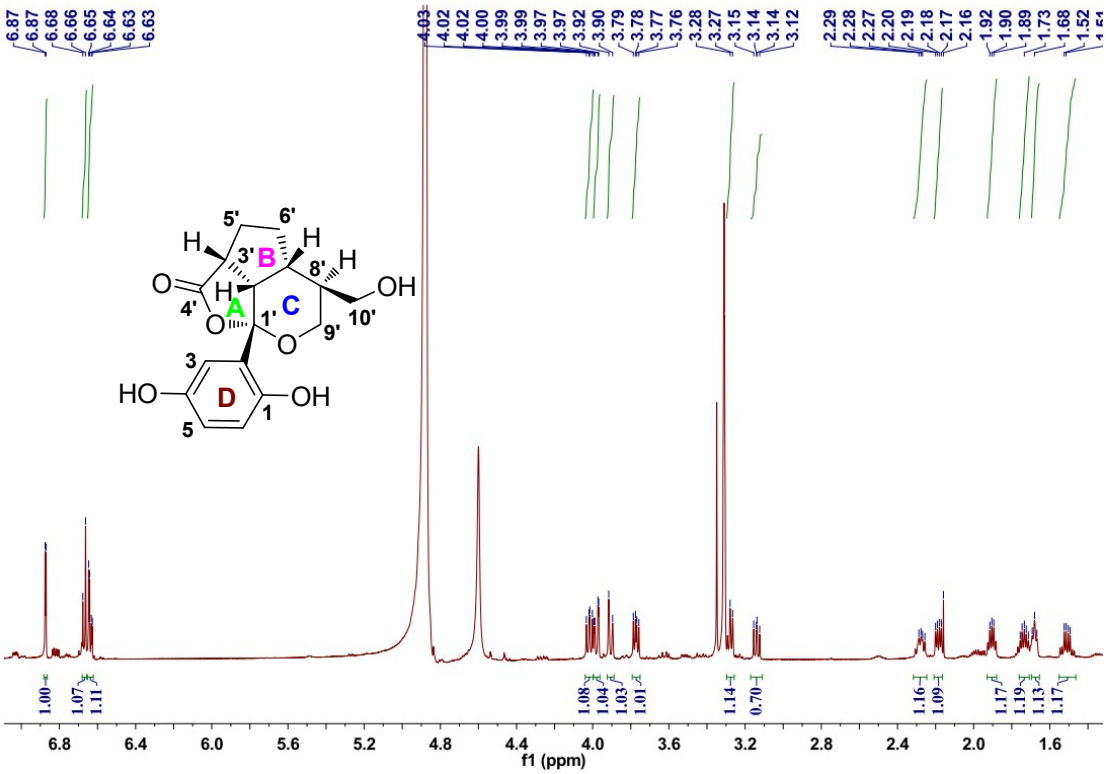


Figure S8. ^{1}H NMR spectrum of **2** in methanol-d_4

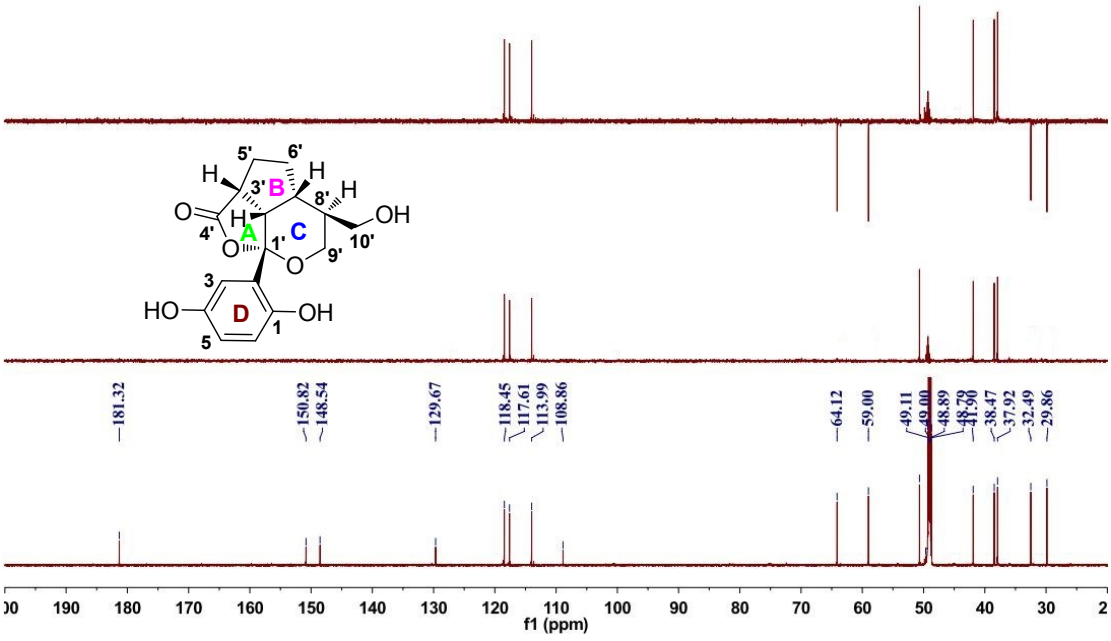


Figure S9. ^{13}C NMR and DEPT spectra of **2** in methanol-d_4

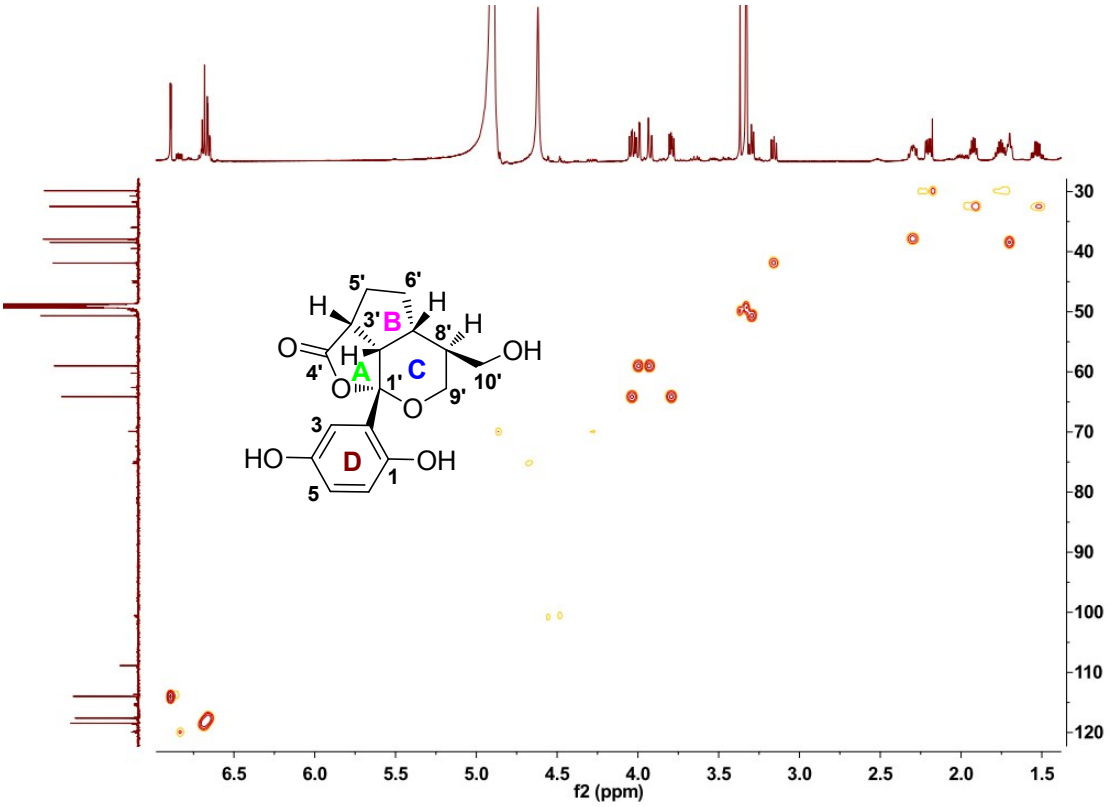


Figure S10. HSQC spectrum of **2** in methanol-d_4

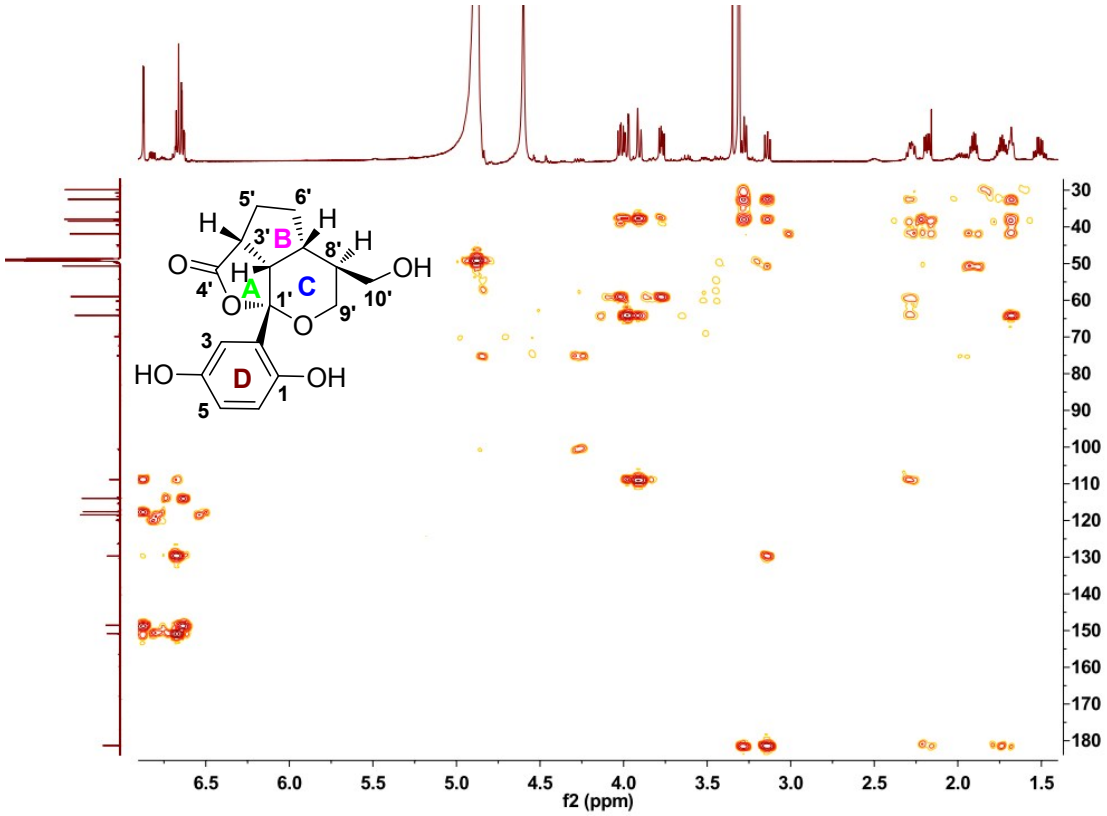


Figure S11. HMBC spectrum of **2** in methanol-d_4

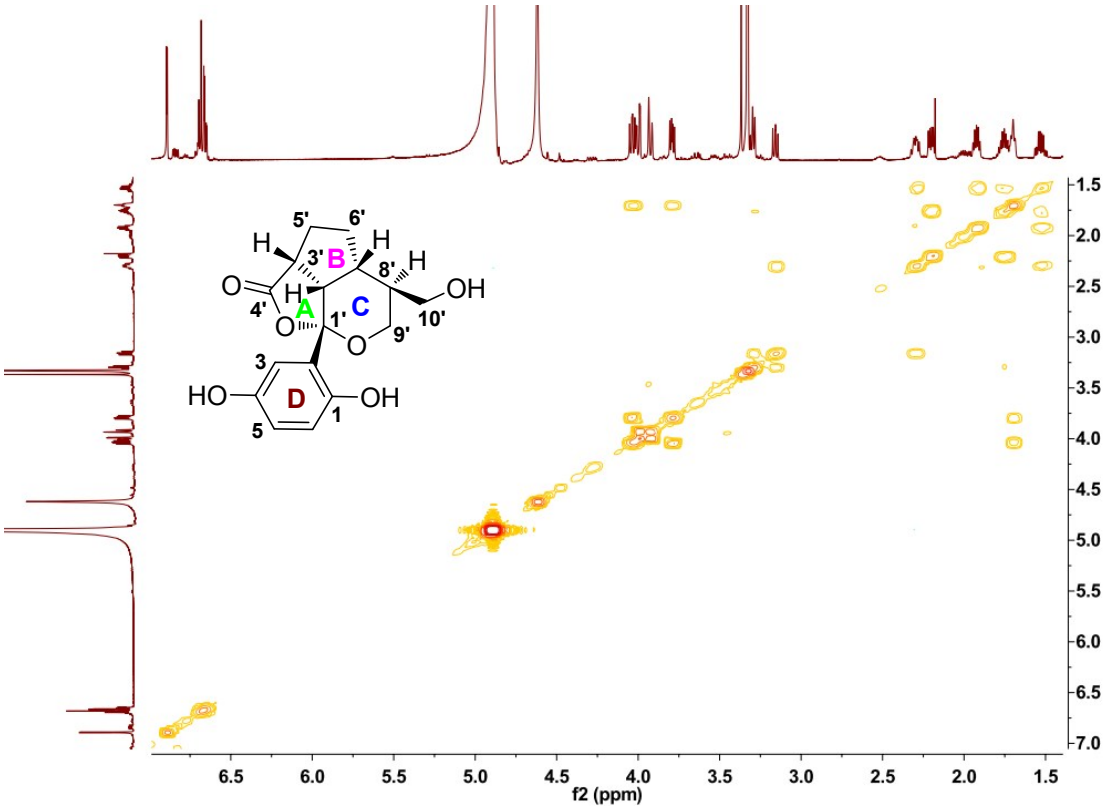
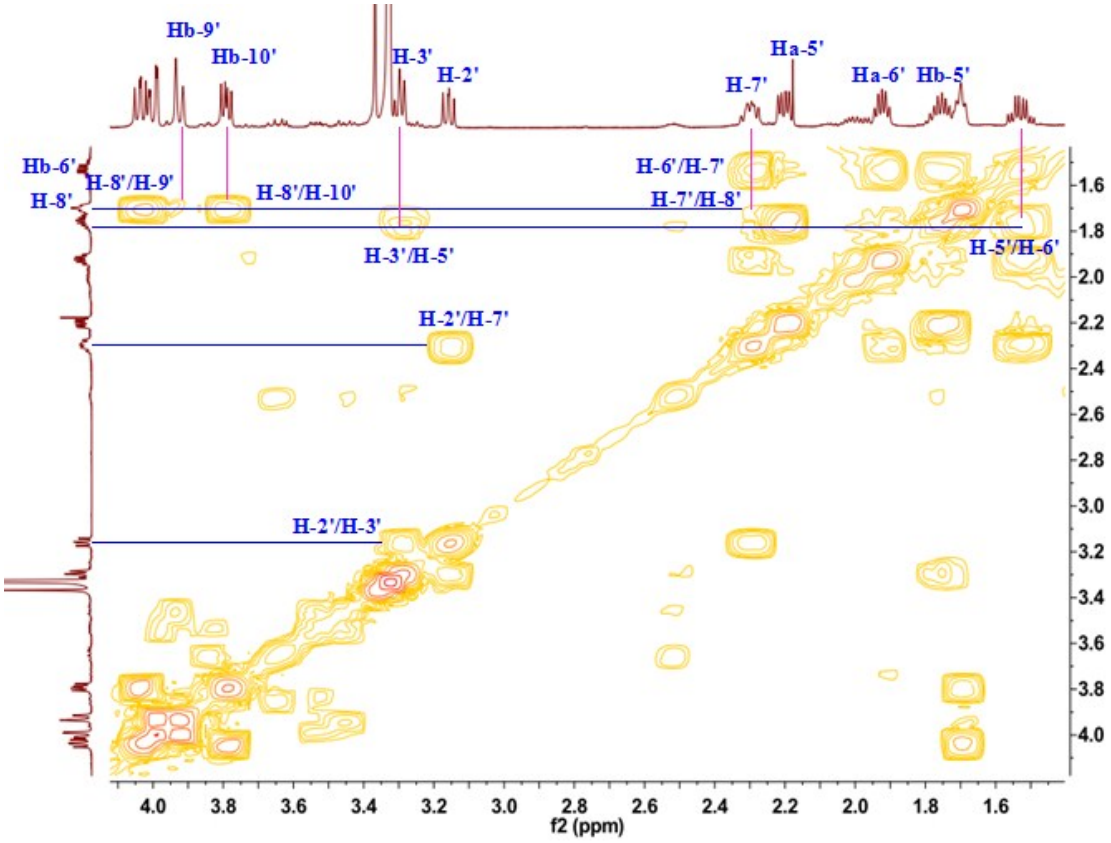


Figure S12. ^{1}H-^{1}H COSY spectrum of **2** in methanol-d_4



Enlarged ^{1}H-^{1}H COSY spectrum of **2** (up-field region) in methanol-d_4

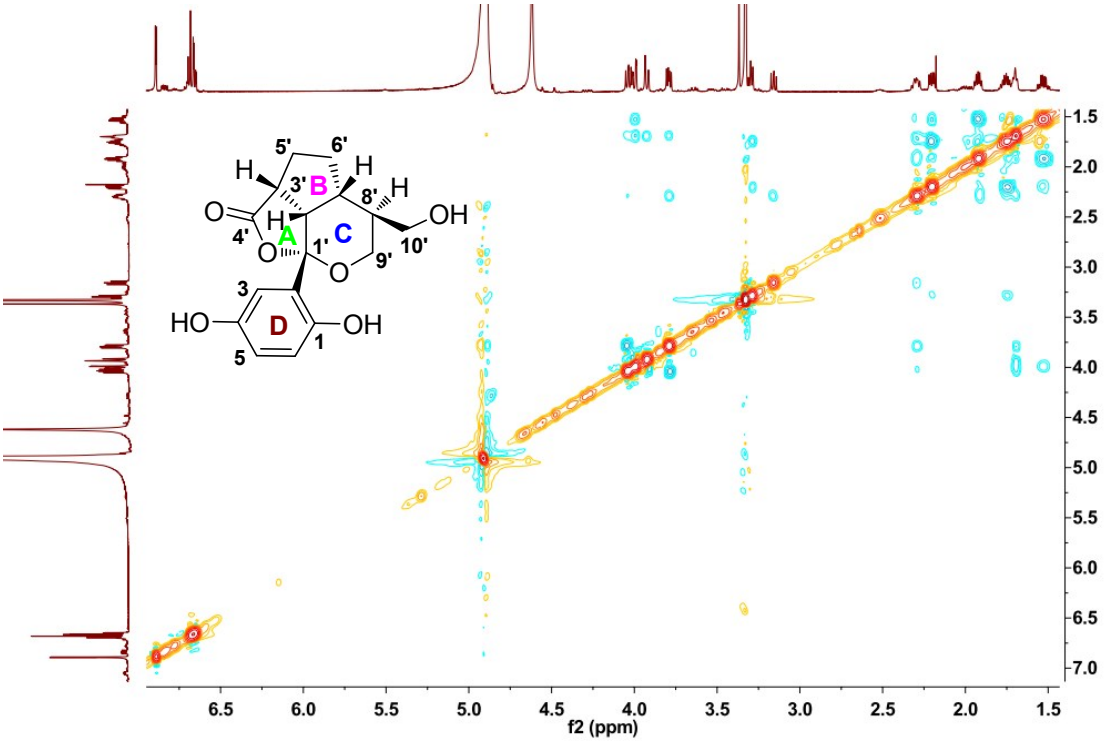
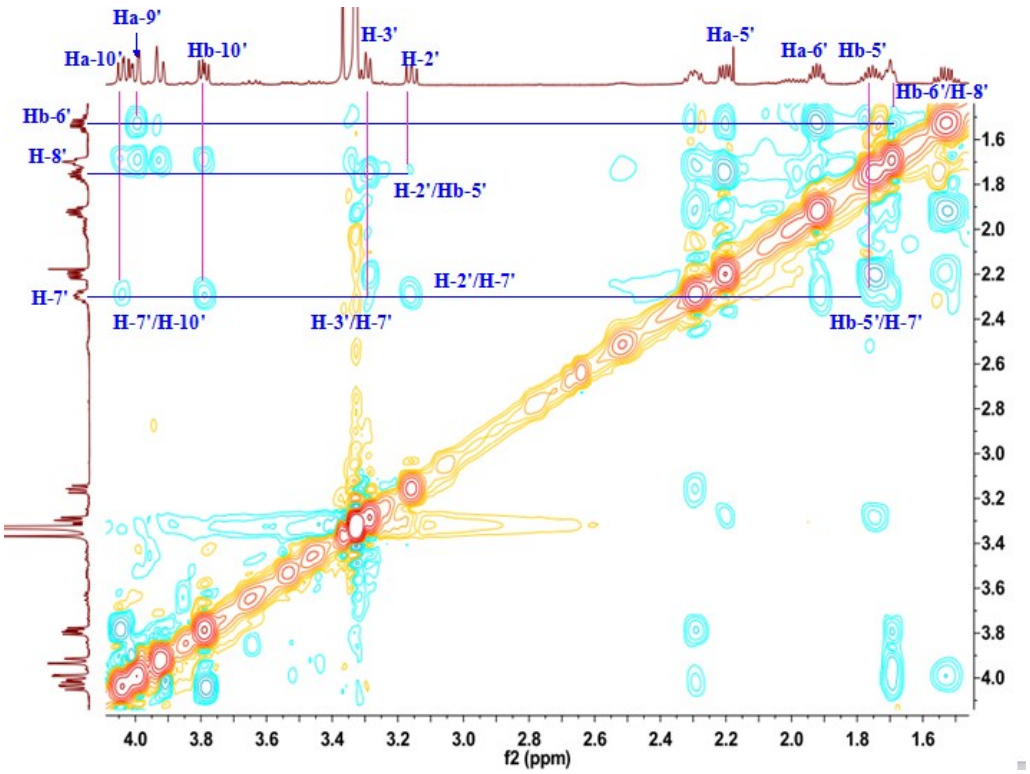


Figure S13. ROESY spectrum of **2** in methanol-d_4



Enlarged ROESY spectrum of **2** (up-field region) in methanol-d_4

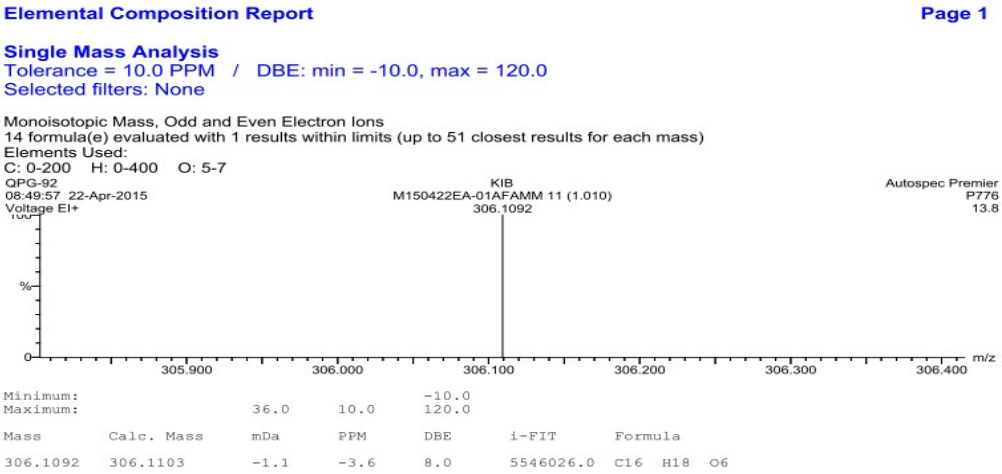


Figure S14. HREIMS spectrum of **2**

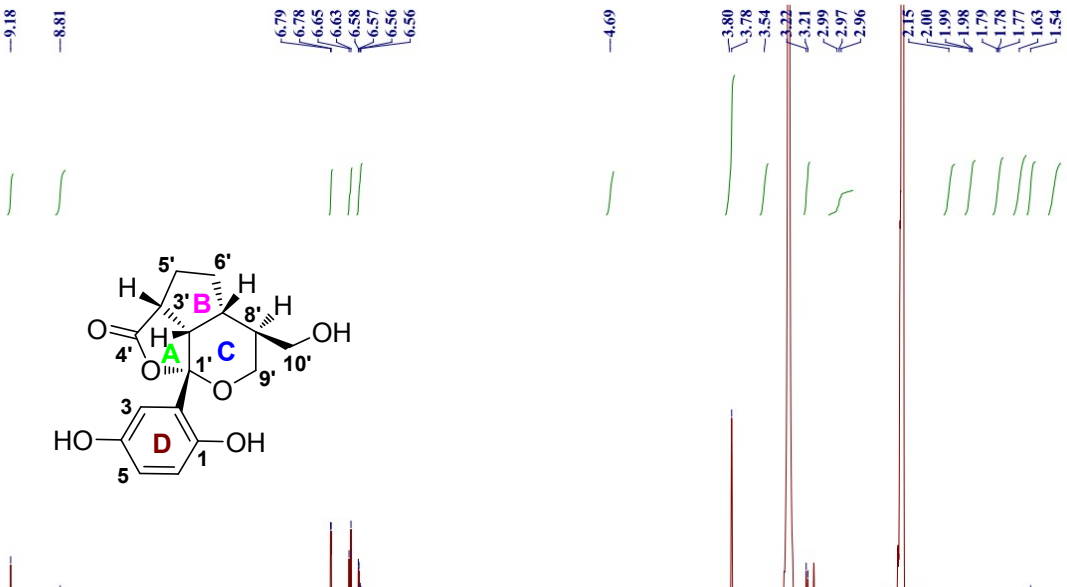


Figure S15. ^{1}H NMR spectrum of **2** in DMSO-d_6

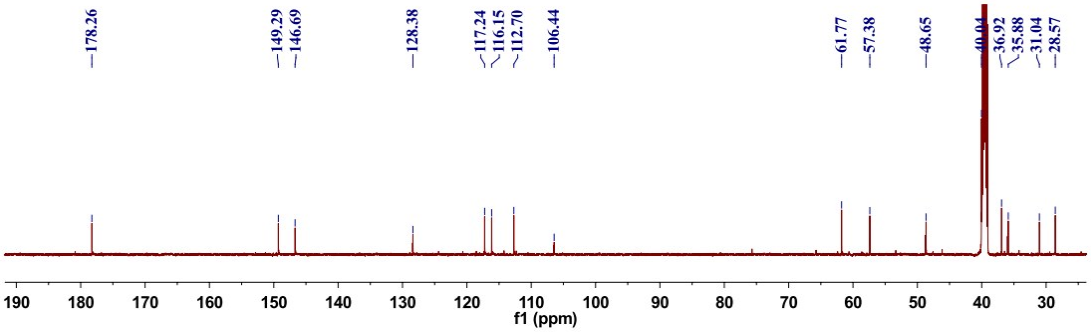


Figure S16. ^{13}C NMR spectrum of **2** in DMSO-d_6

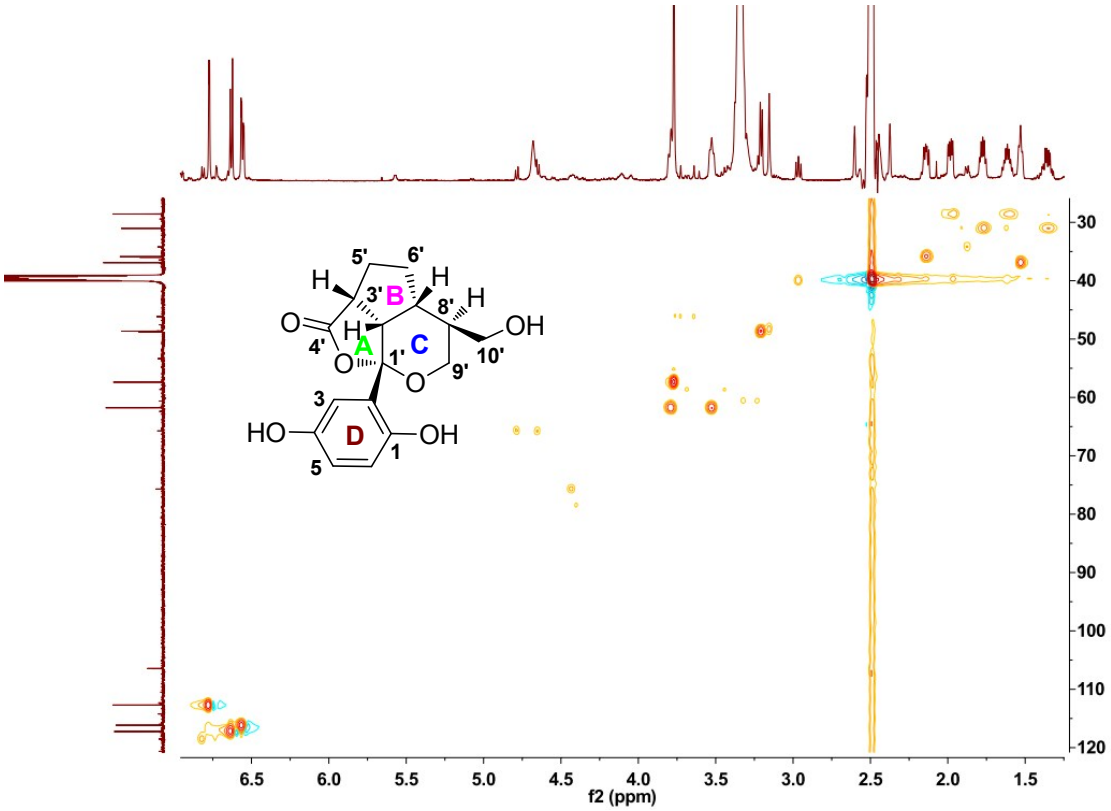


Figure S17. HSQC spectrum of **2** in DMSO-d_6

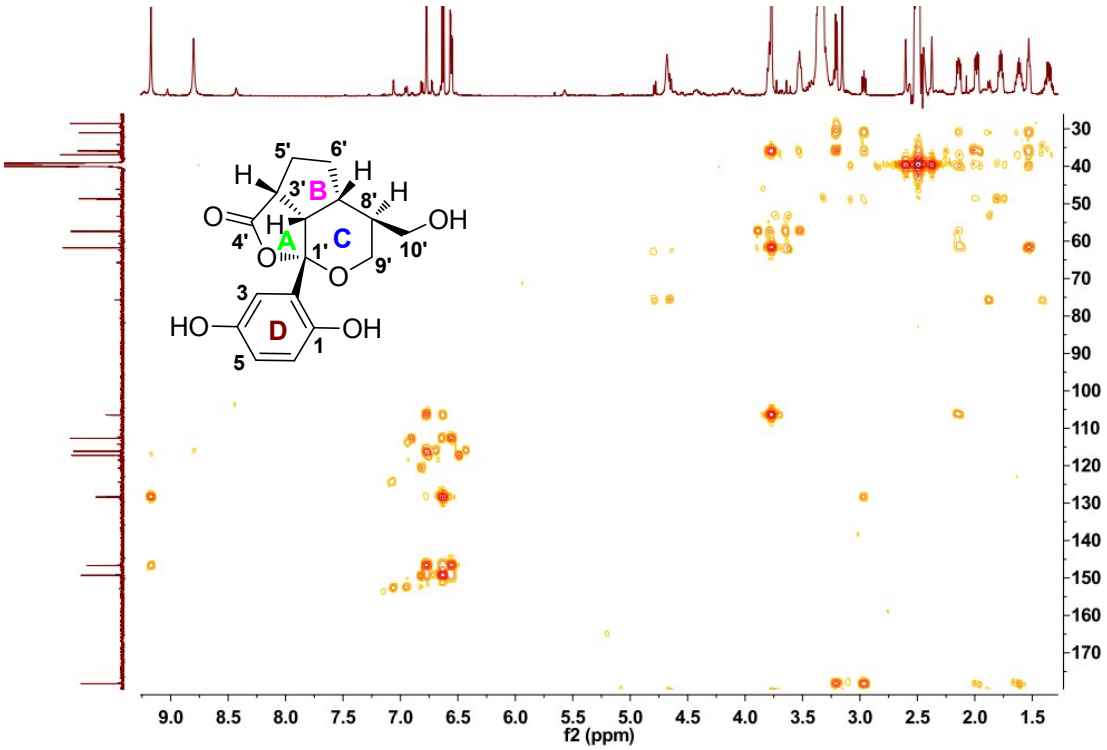


Figure S18. HMBC spectrum of **2** in DMSO-d_6

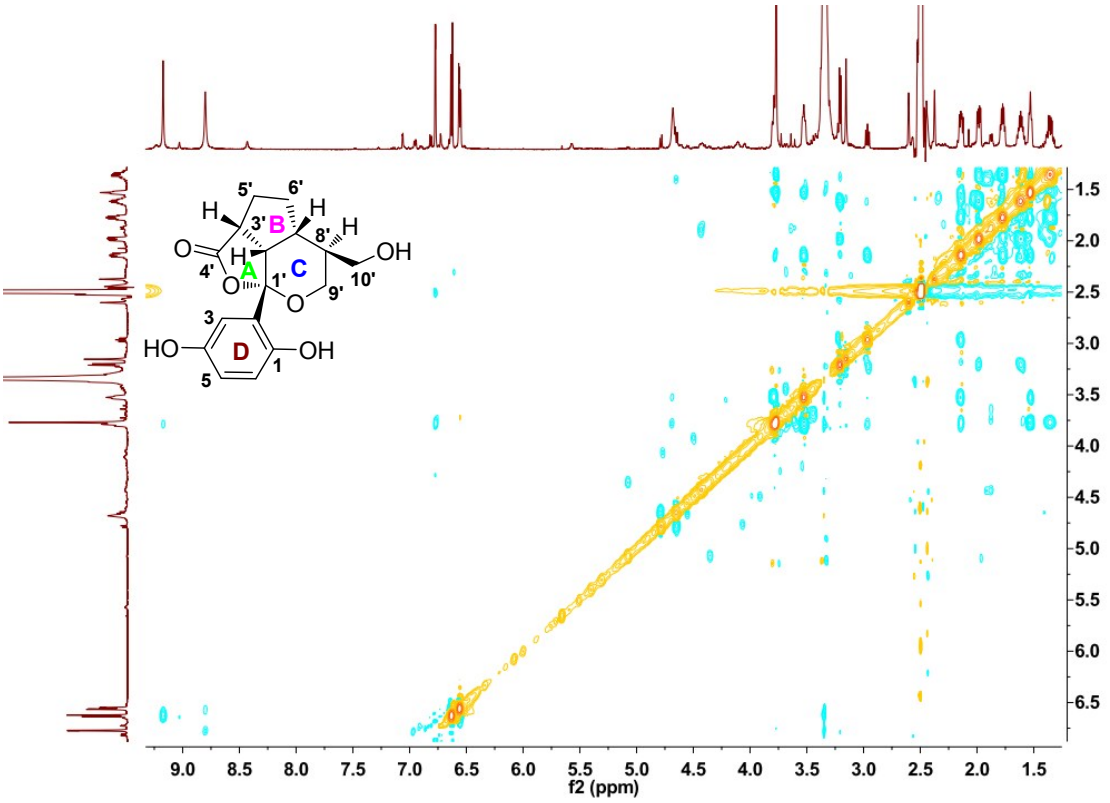


Figure S19. ROESY spectrum of **2** in DMSO-d_6

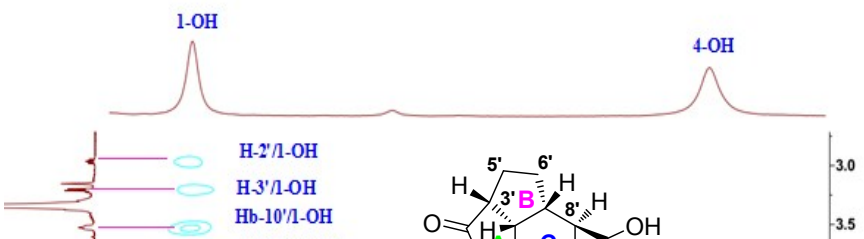


Figure S20. Enlarged ROESY spectrum of **2** (low-field region) in DMSO-d_6

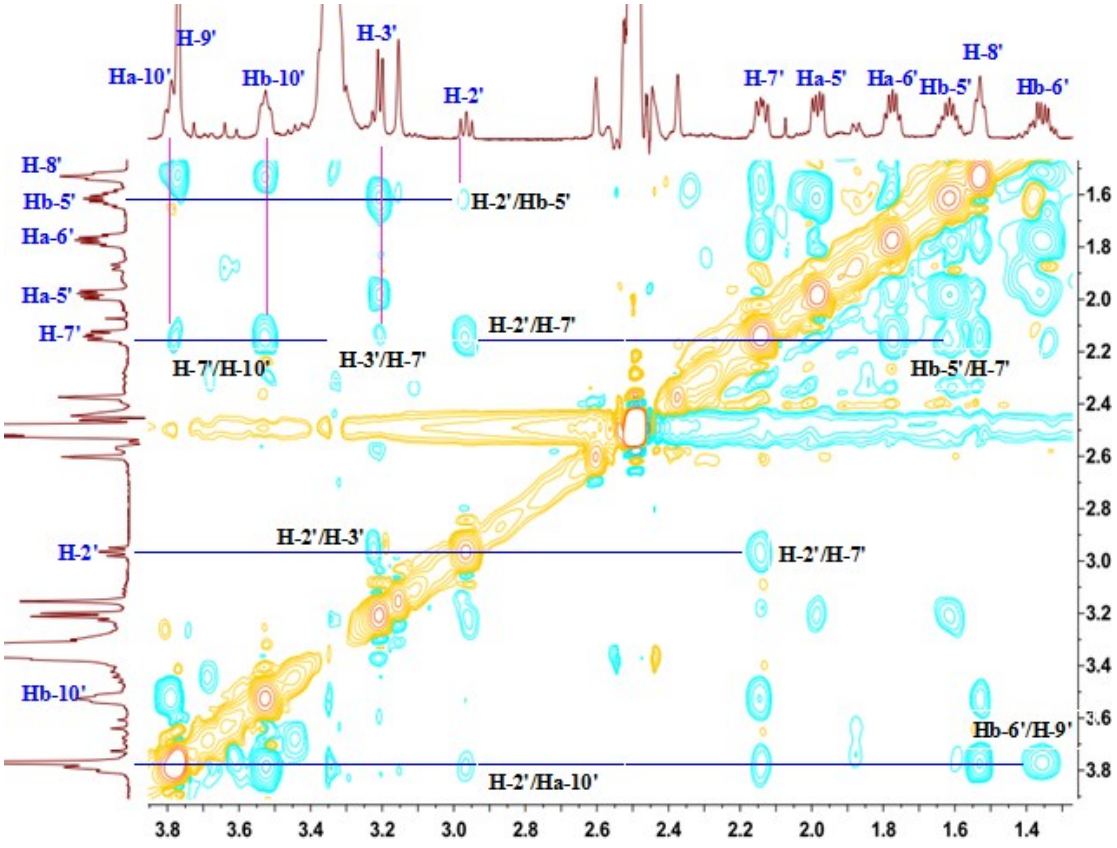


Figure S21. Enlarged ROESY spectrum of **2** (up-field region) in DMSO-d_6

X-ray crystal data

Crystal data for **1**: $2(C_{16}H_{16}O_6)\bullet H_2O$, M = 626.59, monoclinic, a = 7.0996(2) Å, b = 17.4669(6) Å, c = 11.5838(4) Å, α = 90.00°, β = 96.2500(10)°, γ = 90.00°, V = 1427.95(8) Å^3, T = 100(2) K, space group $P21$, Z = 2, μ(CuKα) = 0.960 mm^{-1}, 10353 reflections measured, 4483 independent reflections (R_{int} = 0.0495). The final R_1 values were 0.0530 ($I > 2\sigma(I)$). The final $wR(F^2)$ values were 0.1452 ($I > 2\sigma(I)$). The final R_1 values were 0.0539 (all data). The final $wR(F^2)$ values were 0.1466 (all data). The goodness of fit on F^2 was 1.041. Flack parameter = -0.12(16). The Hooft parameter is 0.02(9) for 1801 Bijvoet pairs. The deposition number CCDC 1439639 for **1** can be obtained free of charge from The Cambridge Crystallographic Data Centre via www.ccdc.cam.ac.uk/data_request/cif.

MTT assay

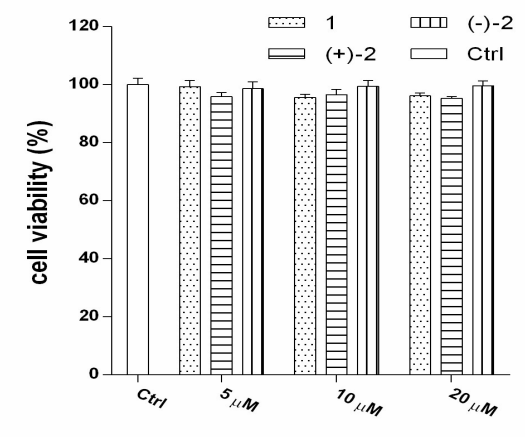


Figure S22. MTT assay of compounds **1**, (+)-**2** and (–)-**2**. NRK-52E cells were treated with indicated concentrations of the compounds for 24 h and detected by MTT assay.