

Supplementary Materials

Tsaokoic acid: a new bicyclic nonene from the fruits of *Amomum tsao-ko* with acetylcholinesterase inhibitory activity

Hyunyoung Kim ^{1,#}, Hwaryeong Lee ^{1,#}, Hee Jin Jung ³, Sang Gyun Noh ³, Isoo Youn ¹,
Hyunkyung Kwak ¹, Yeju Lee ¹, Sang-Jip Nam ², Soosung Kang ¹, Hae Young Chung ³ and Eun
Kyoung Seo ^{1,*}

¹Graduate School of Pharmaceutical Sciences, College of Pharmacy, Ewha Womans University, Seoul 03760, Korea

²Department of Chemistry and Nanoscience, Ewha Womans University, Seoul 03760, Korea

³Department of Pharmacy, College of Pharmacy, Pusan National University, Busan 46241, Korea

*Correspondence: yuny@ewha.ac.kr (E.K.S.)

[#]Equally contributed in this study.

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	Concentration (μ M)	Inhibition (%)	IC ₅₀ (μ M)	sd ^a
tsaokoic acid (1)	2	2.09	32.78	1.00
	10	29.50		
	50	70.92		
Tsaokoin (2)	2	-6.07	41.70	3.19
	10	7.74		
	50	62.13		
Vanillin (3)	2	-1.88	39.25	1.81
	10	6.07		
	50	65.69		
Tsaokoarylone (4)	2	-11.93	31.13	1.24
	10	30.75		
	50	78.66		
Berberine	0.04	20.71	0.19	0.09
	0.2	73.43		
	1	95.82		

^aStandard deviation

Table S1. AChE-inhibitory activity of the isolates **1-4** from *A. tsao-ko*

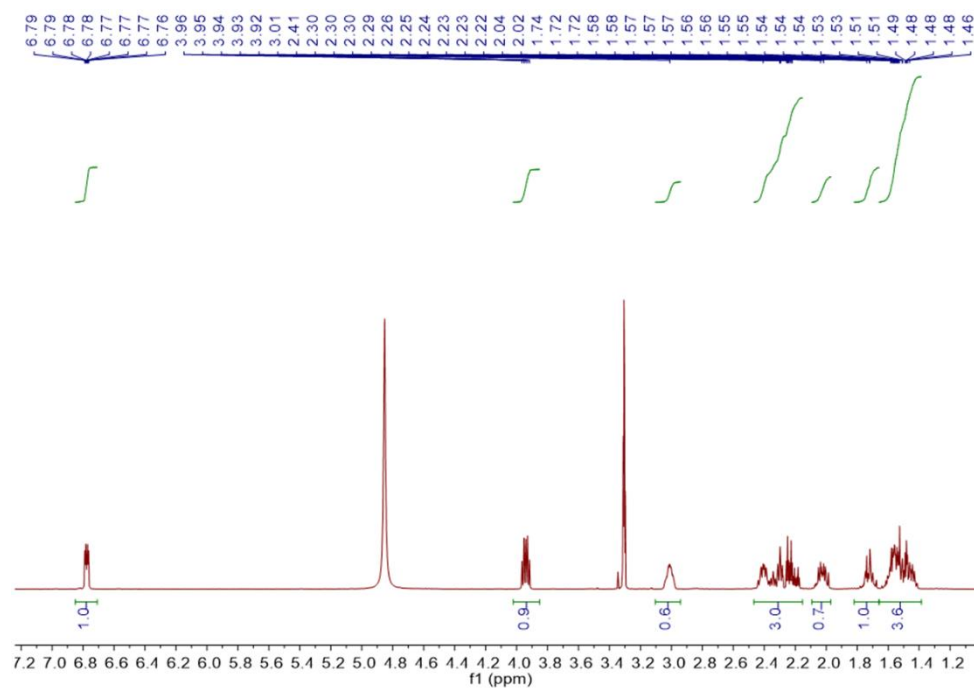


Figure S1. ¹H NMR spectrum of **1** (400 MHz, CD₃OD)

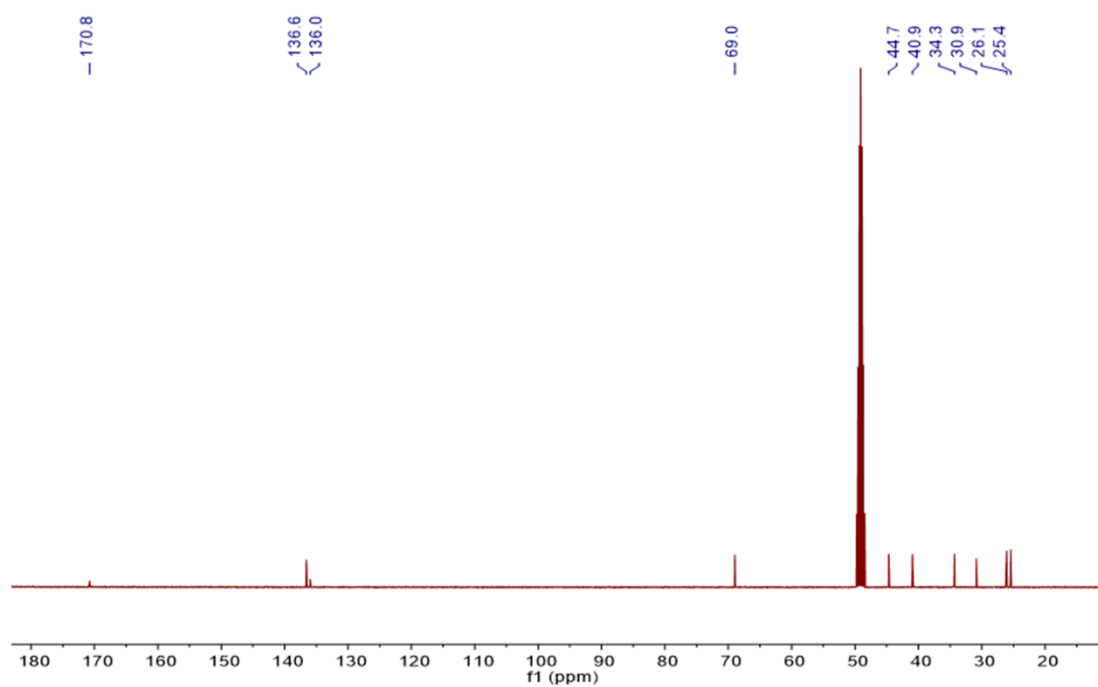


Figure S2. ¹³C NMR spectrum of **1** (100 MHz, CD₃OD)

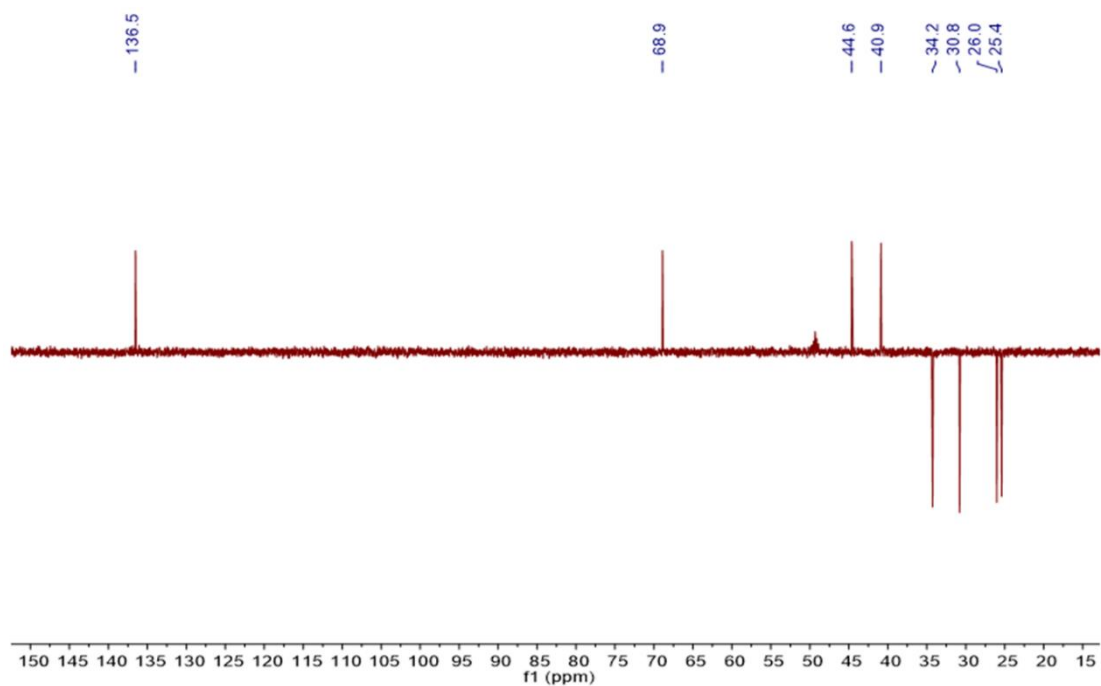


Figure S3. DEPT-135 NMR spectrum of **1** (100 MHz, CD₃OD)

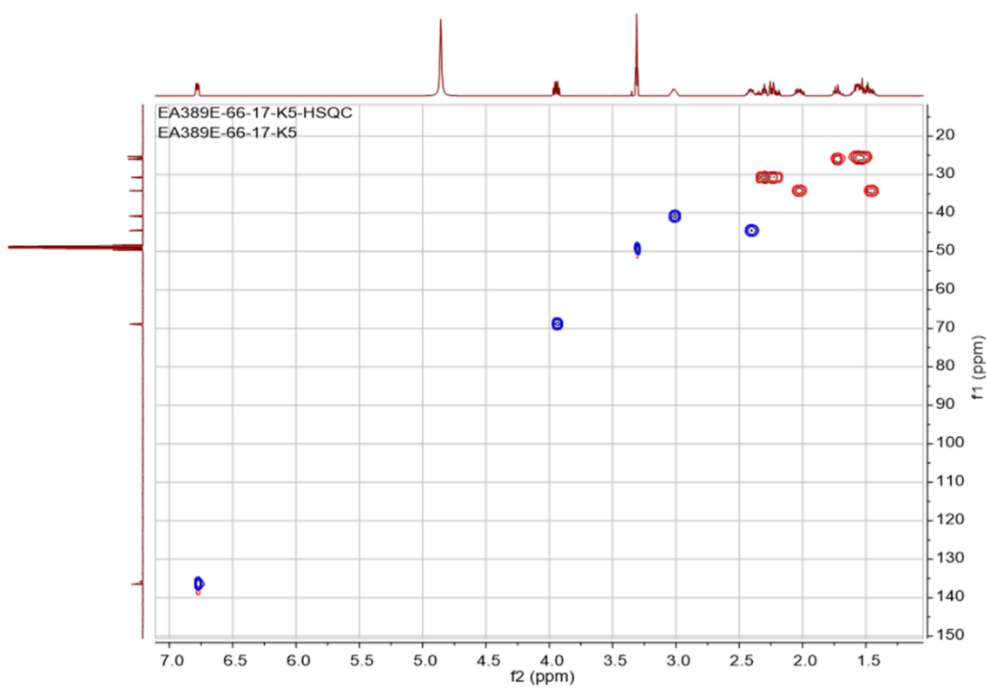


Figure S4. ¹H-¹³C HSQC NMR spectrum of **1** (CD₃OD)

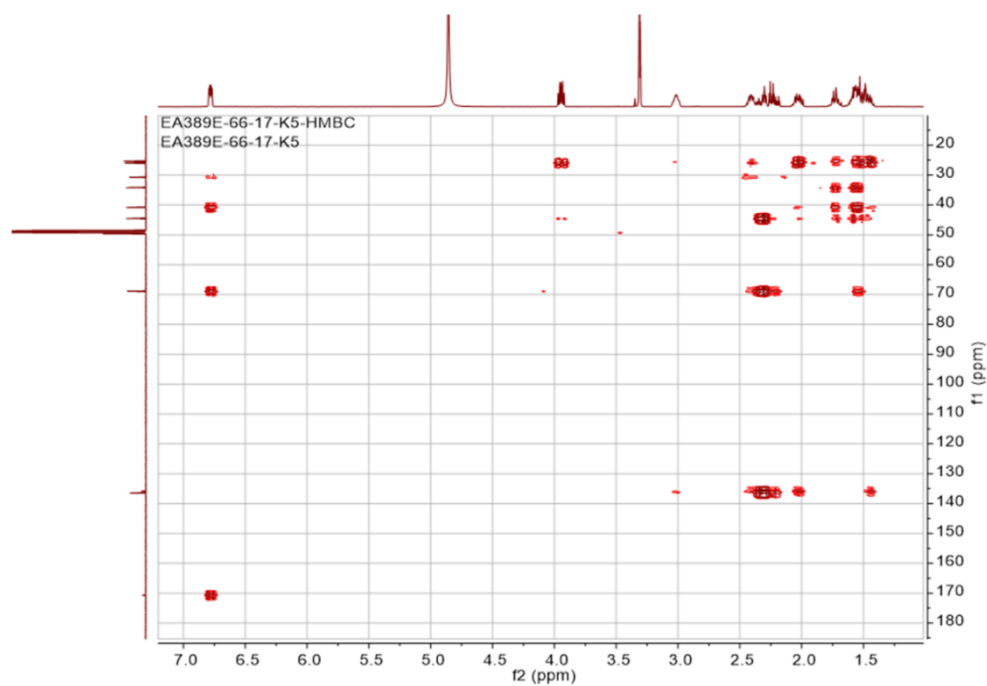


Figure S5. ^1H - ^{13}C HMBC NMR spectrum of **1** (CD_3OD)

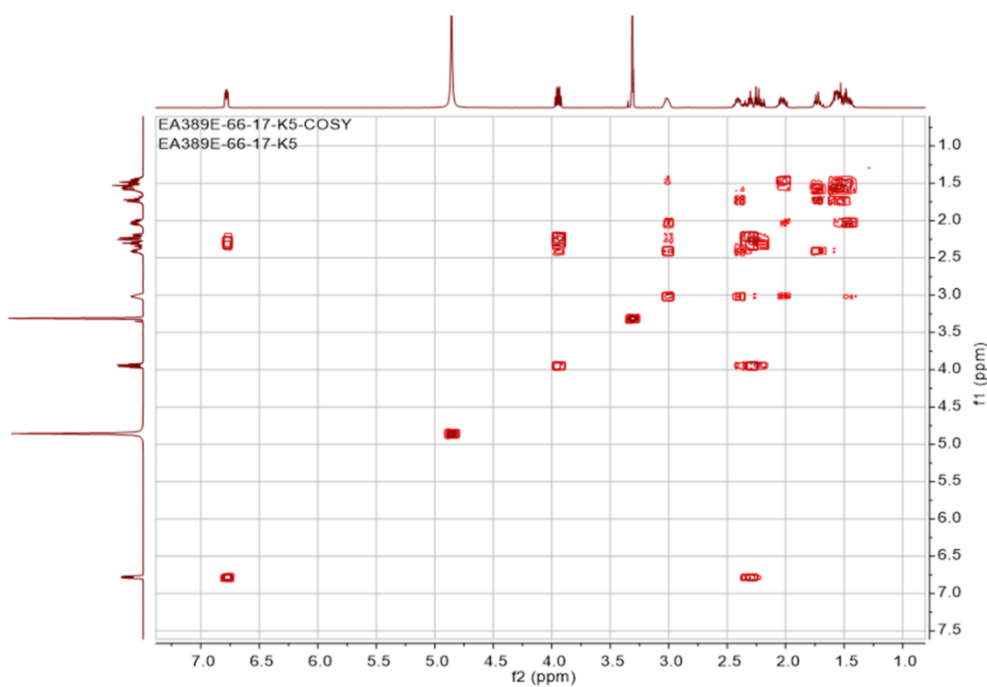


Figure S6. ^1H - ^1H COSY NMR spectrum of **1** (CD_3OD)

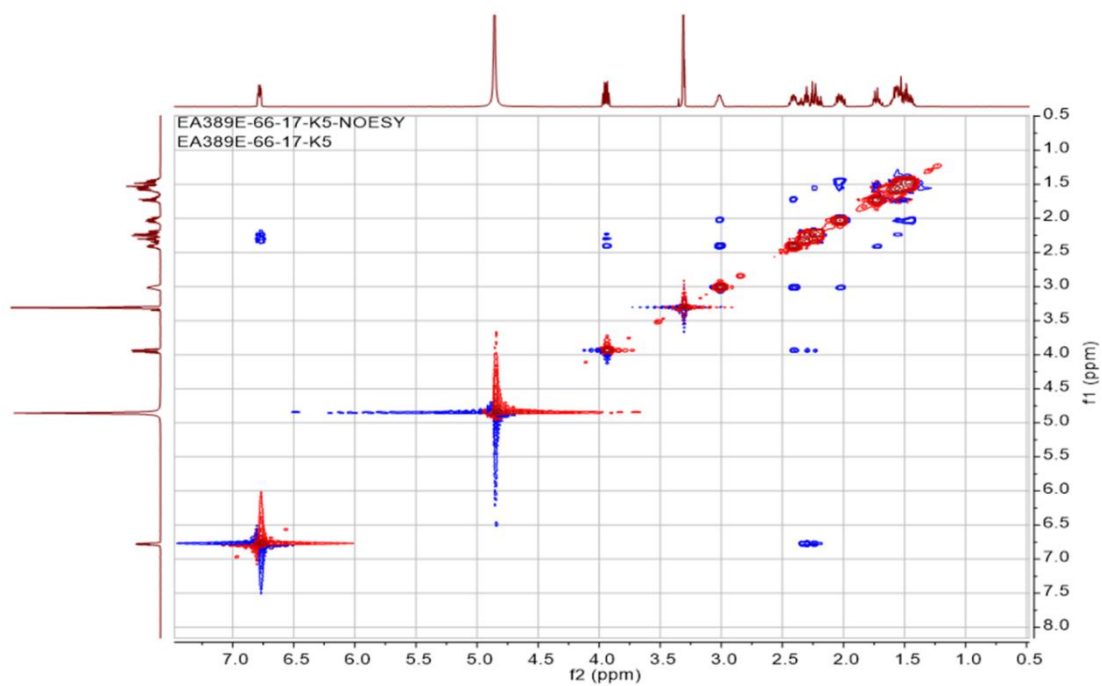


Figure S7. ¹H-¹H NOESY NMR spectrum of **1** (CD₃OD)

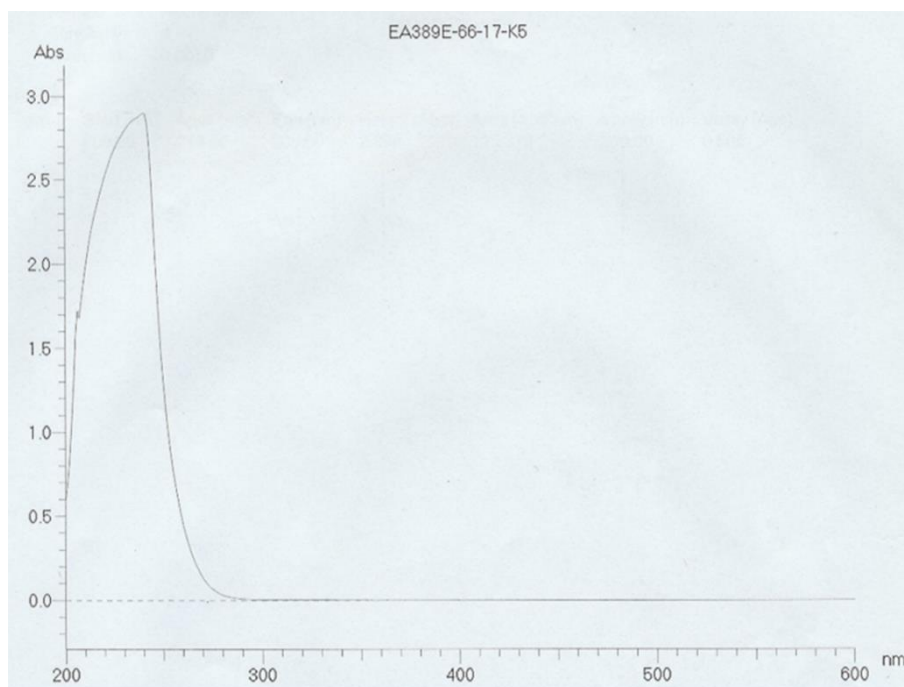


Figure S8. UV spectrum of **1**

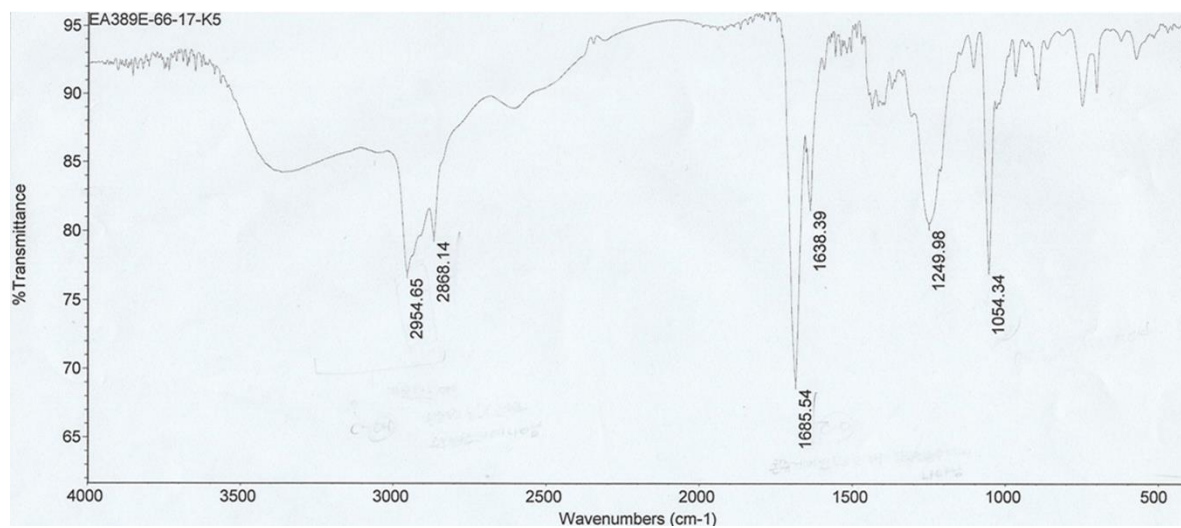


Figure S9. IR spectrum of **1**

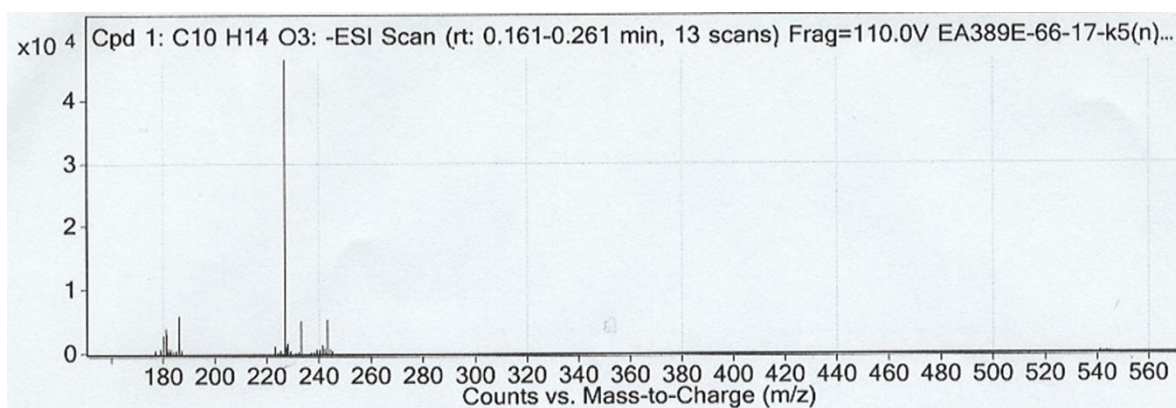


Figure S10. HRESIMS spectrum of **1**

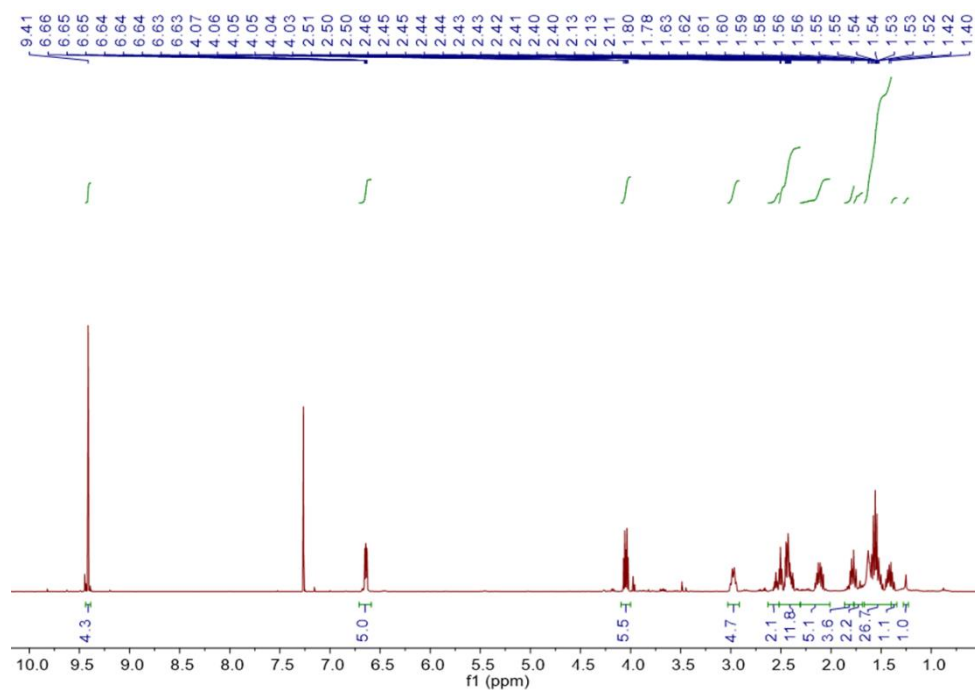


Figure S11. ¹H NMR spectrum of **2** (400 MHz, CDCl₃)

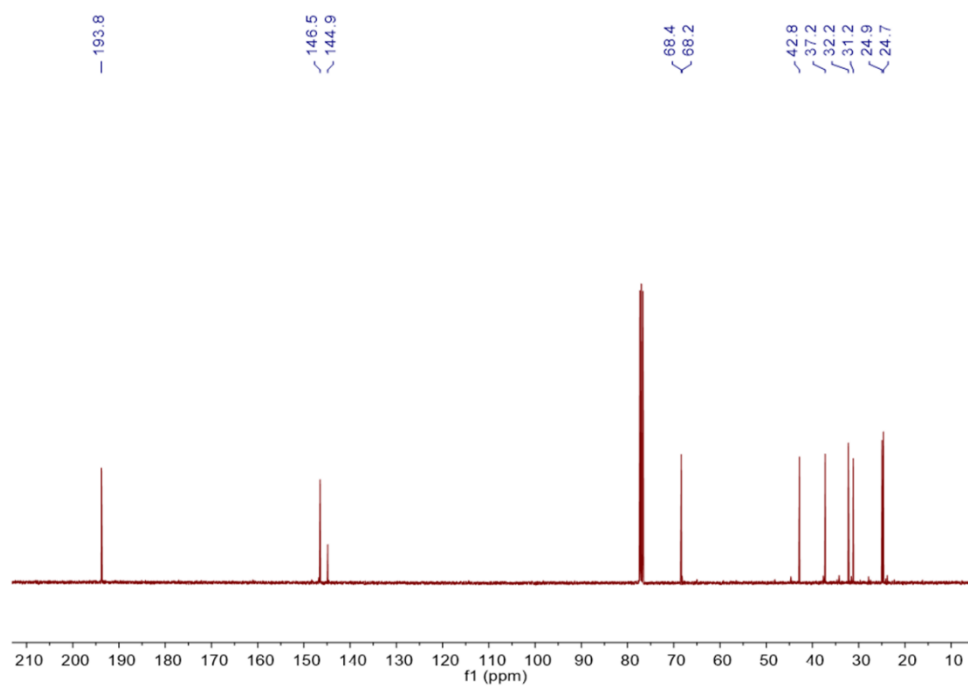


Figure S12. ¹³C NMR spectrum of **2** (100 MHz, CDCl₃)

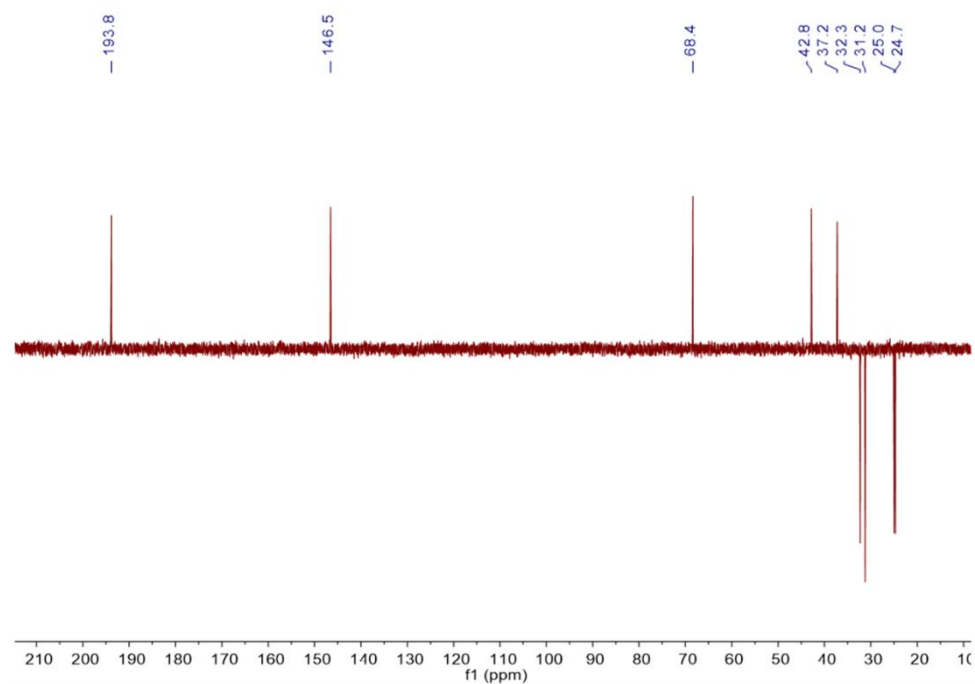


Figure S13. DEPT-135 NMR spectrum of **2** (100 MHz, CDCl₃)

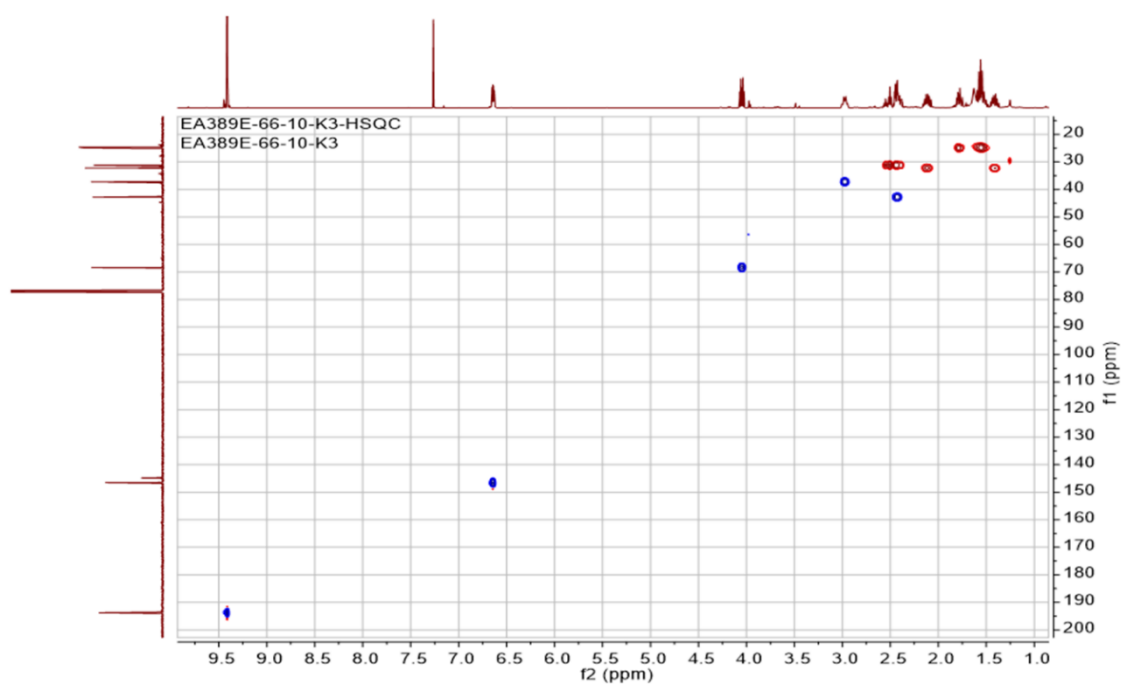


Figure S14. ¹H-¹³C HSQC NMR spectrum of **2** (CDCl₃)

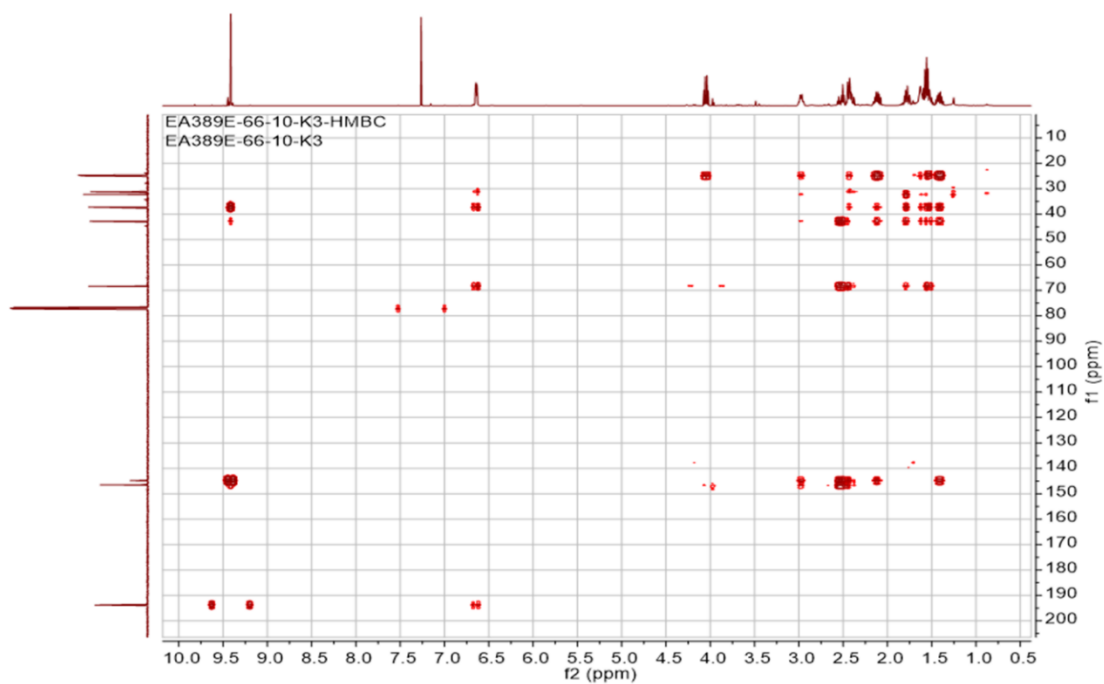


Figure S15. ^1H - ^{13}C HMBC NMR spectrum of **2** (CDCl_3)

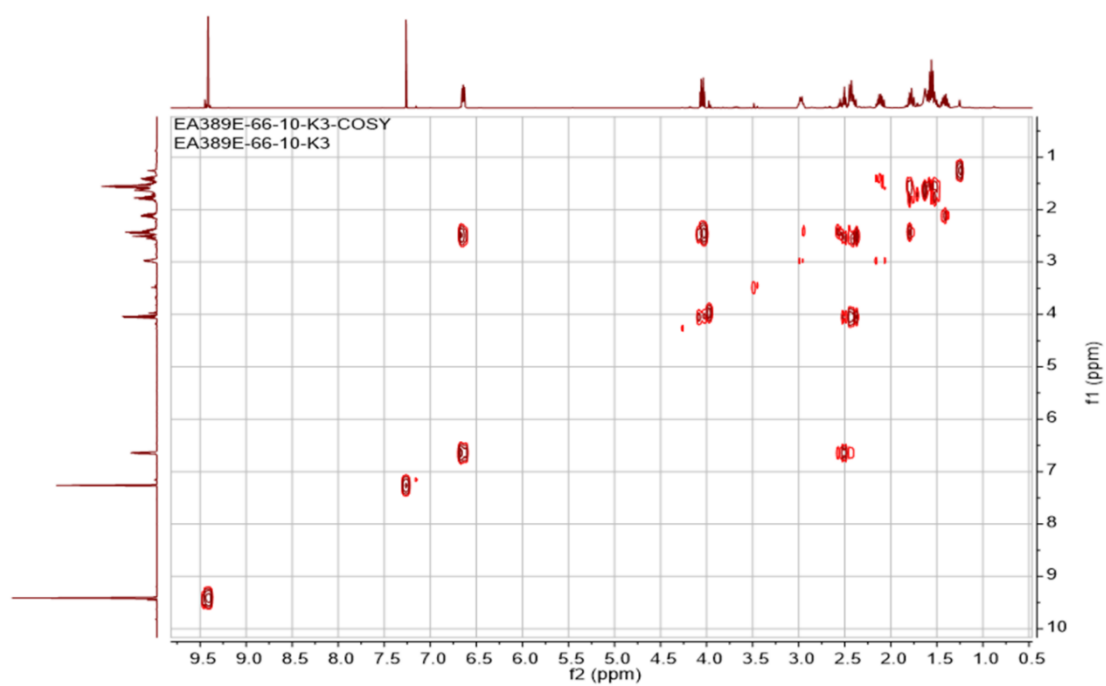


Figure S16. ^1H - ^1H COSY NMR spectrum of **2** (CDCl_3)

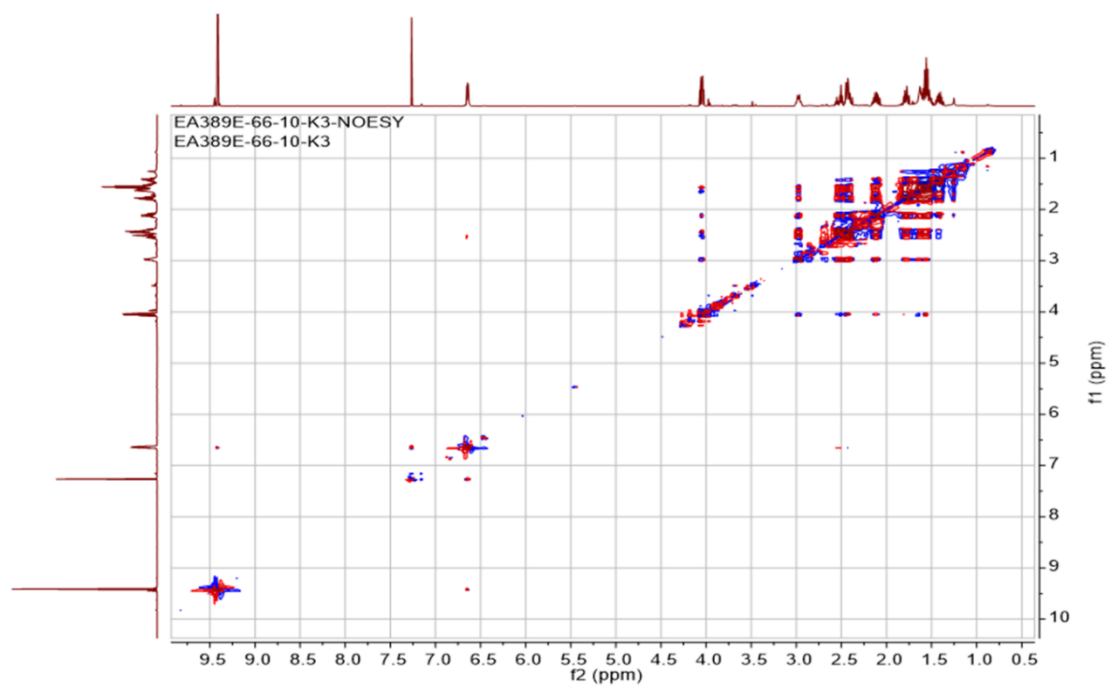


Figure S17. ¹H-¹H NOESY NMR spectrum of **2** (CDCl₃)

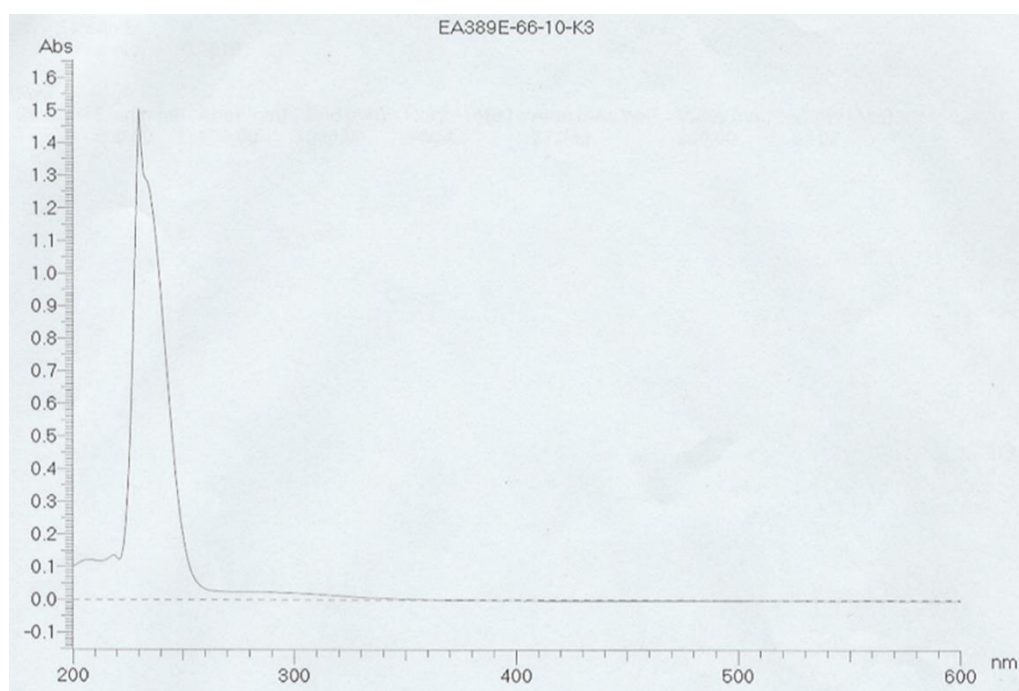


Figure S18. UV spectrum of **2**

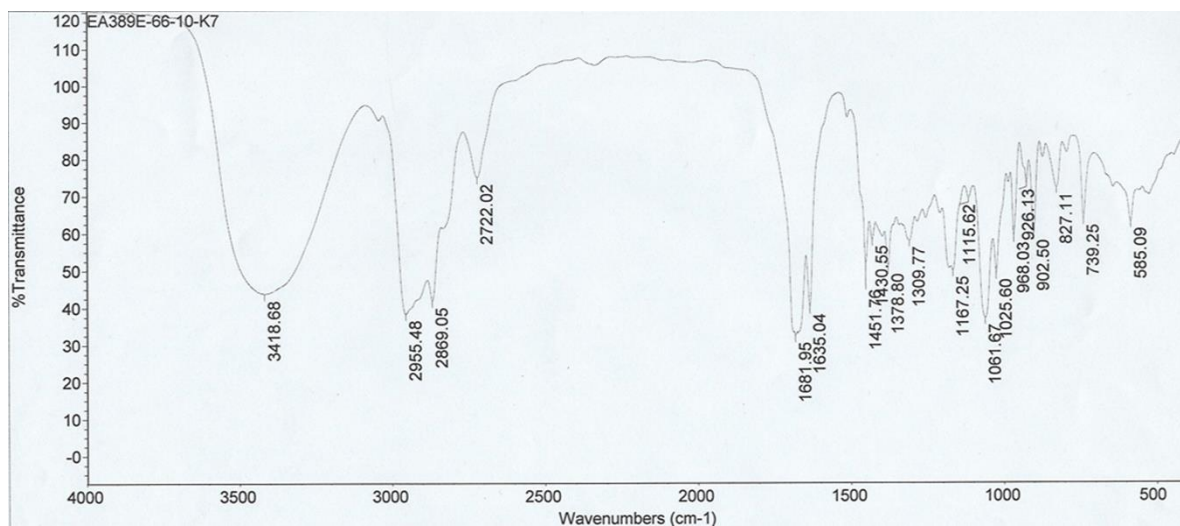


Figure S19. IR spectrum of **2**

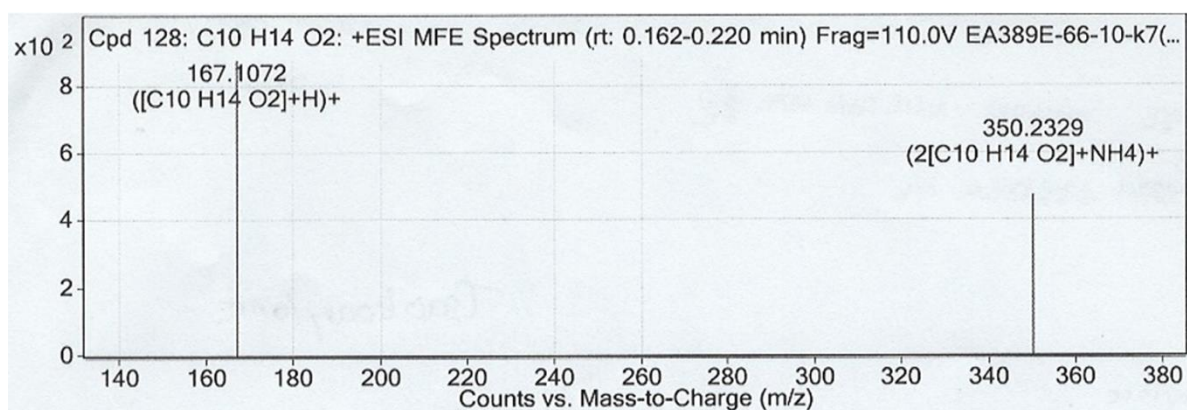


Figure S20. HRESIMS spectrum of **2**

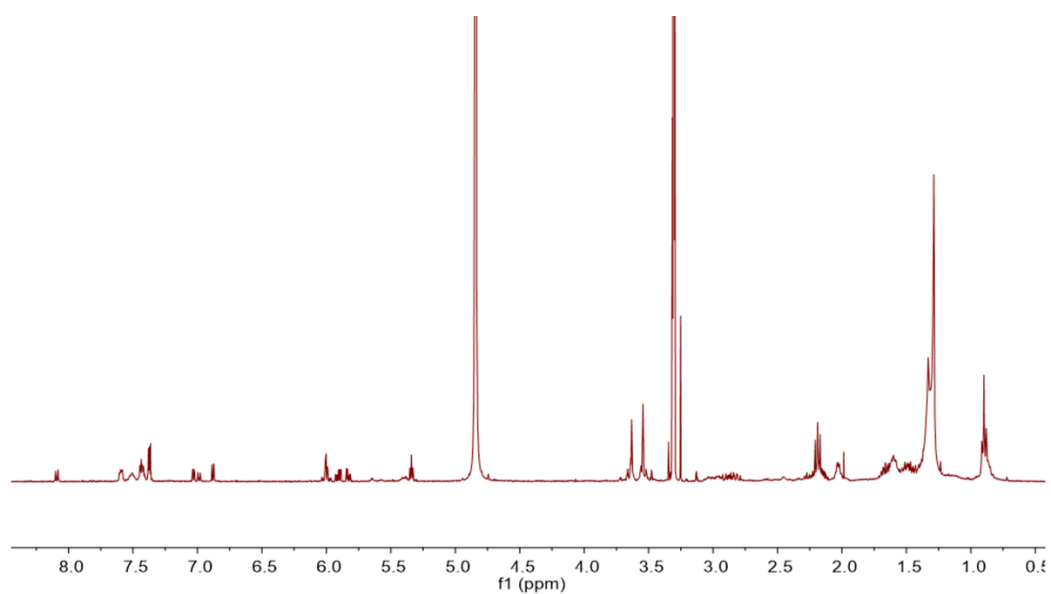


Figure S21. ^1H -NMR (400 MHz, CD_3OD) of (R)-MTPA ester of **1**

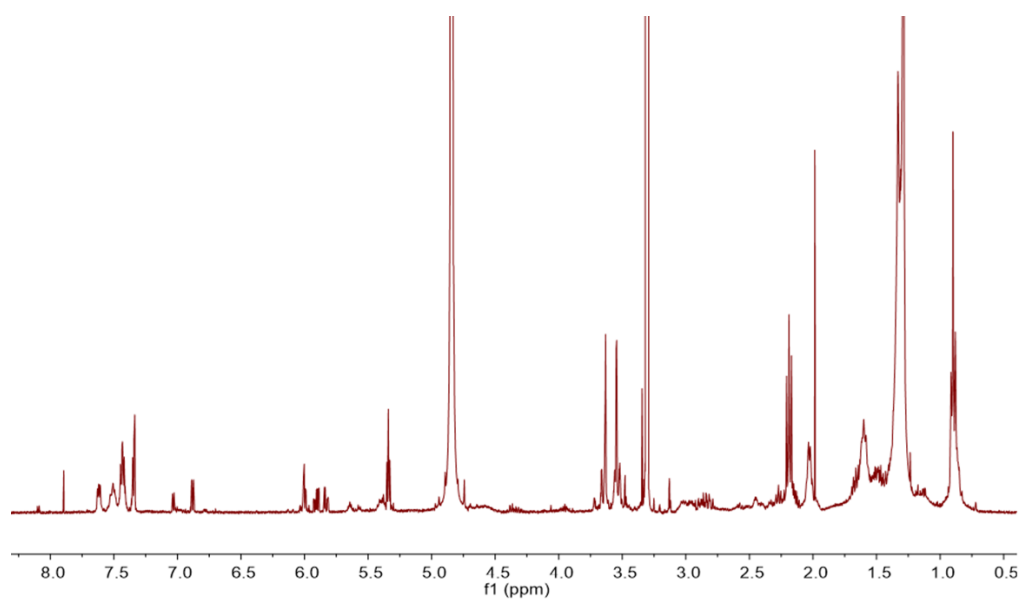


Figure S22. ^1H -NMR (400 MHz, CD_3OD) of (S)-MTPA ester of **1**

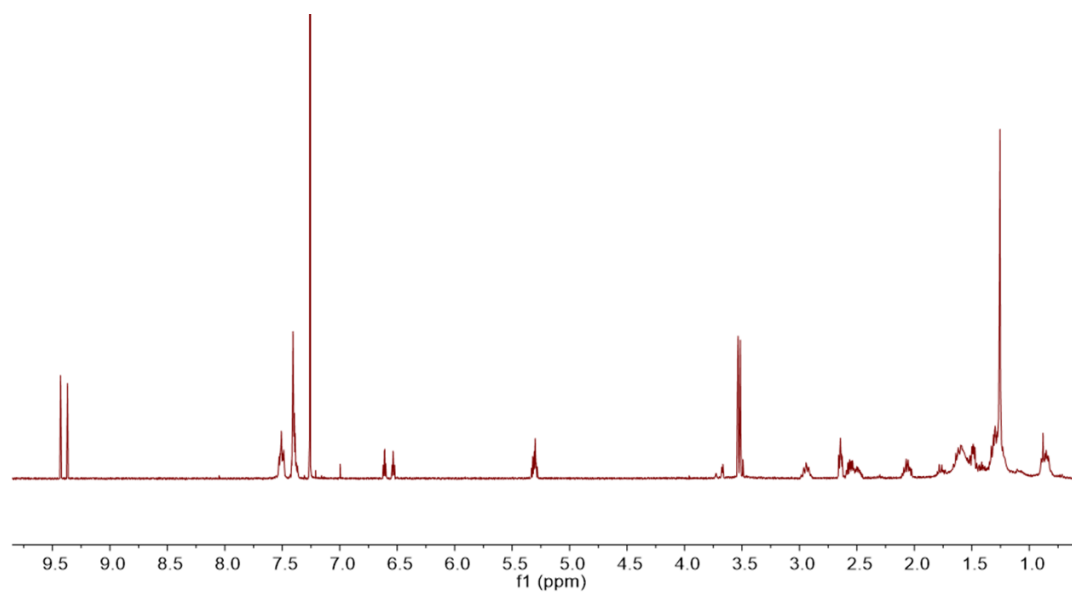


Figure S23. ^1H -NMR (400 MHz, CDCl_3) of (R)-MTPA ester of **2**

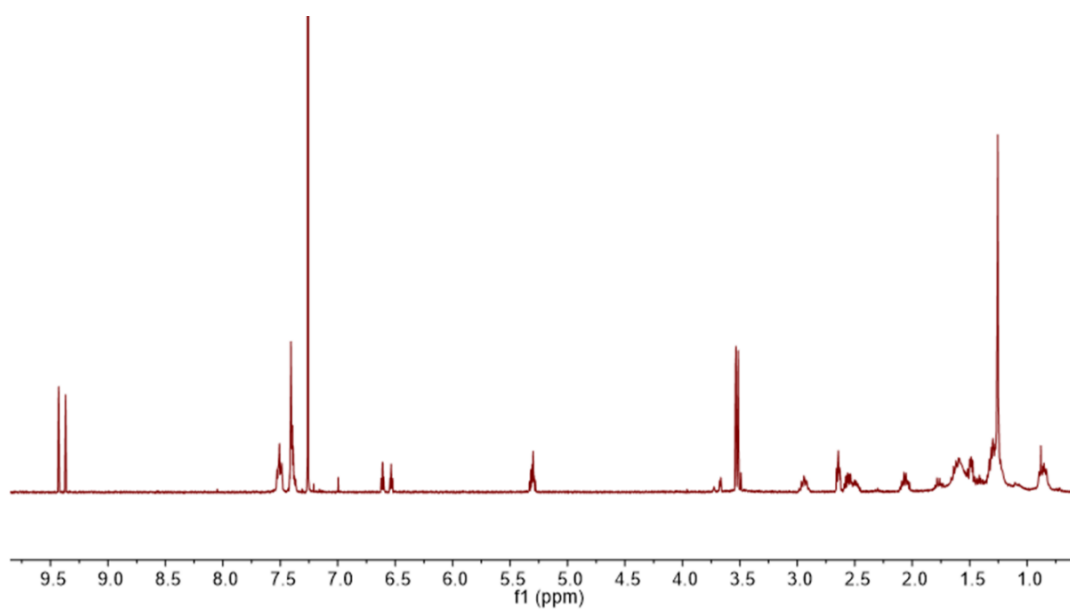


Figure S24. ^1H -NMR (400 MHz, CDCl_3) of (S)-MTPA ester of **2**