

Supplementary Materials for

New C₁₅ Acetogenins from Two Species of *Laurencia* from the Aegean Sea

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Table S1. In vitro antibacterial activity of compounds 1–3, 5–11, 13 and 15–32.

Compound	MIC ($\mu\text{g/mL}$)	
	<i>S. aureus</i> (ATCC-25923)	<i>E. coli</i> (NCTC-10418)
sagonenyne (1)	not active ¹	not active ¹
10-acetyl-sagonenyne (2)	not active ¹	not active ¹
<i>cis</i> -sagonenyne (3)	not active ¹	not active ¹
compound 5	not active ¹	not active ¹
rogiloxepane C (6)	not active ¹	not active ¹
rogilenyne B (7)	128	not active ¹
<i>trans</i> -pinnatifidenyne (8)	not active ¹	not active ¹
(3 <i>E</i>)-laurenyne (9)	not active ¹	not active ¹
marilzallene B (10)	not active ¹	not active ¹
tinosallene A (11)	not active ¹	not active ¹
(3 <i>E</i> ,6 <i>R</i> ,7 <i>R</i>)-obtusenyne (13)	not active ¹	not active ¹
10-bromo-obtusallene I (15)	not active ¹	not active ¹
obtusallene VII (16)	not active ¹	not active ¹
obtusallene XI (17)	not active ¹	not active ¹
obtusallene IV (18)	not active ¹	not active ¹
obtusallene VI (19)	not active ¹	not active ¹
obtusallene V (20)	not active ¹	not active ¹
chondrioallene (21)	not active ¹	not active ¹
compound 22	not active ¹	not active ¹
compound 23	not active ¹	not active ¹
<i>iso</i> -laurenisol (24)	16	not active ¹
bromolaurenisol (25)	4	not active ¹
α -snyderol (26)	not active ¹	not active ¹
obtusanol (27)	not active ¹	not active ¹
perforenol (28)	not active ¹	not active ¹
compound 29	not active ¹	not active ¹
<i>trans</i> -nerolidol (30)	not active ¹	not active ¹
isopinnatol B (31)	not active ¹	not active ¹
deoxyparguerol (32)	not active ¹	not active ¹
vancomycin	1	not tested
chloramphenicol	not tested	4

¹ At a concentration of 128 $\mu\text{g/mL}$.

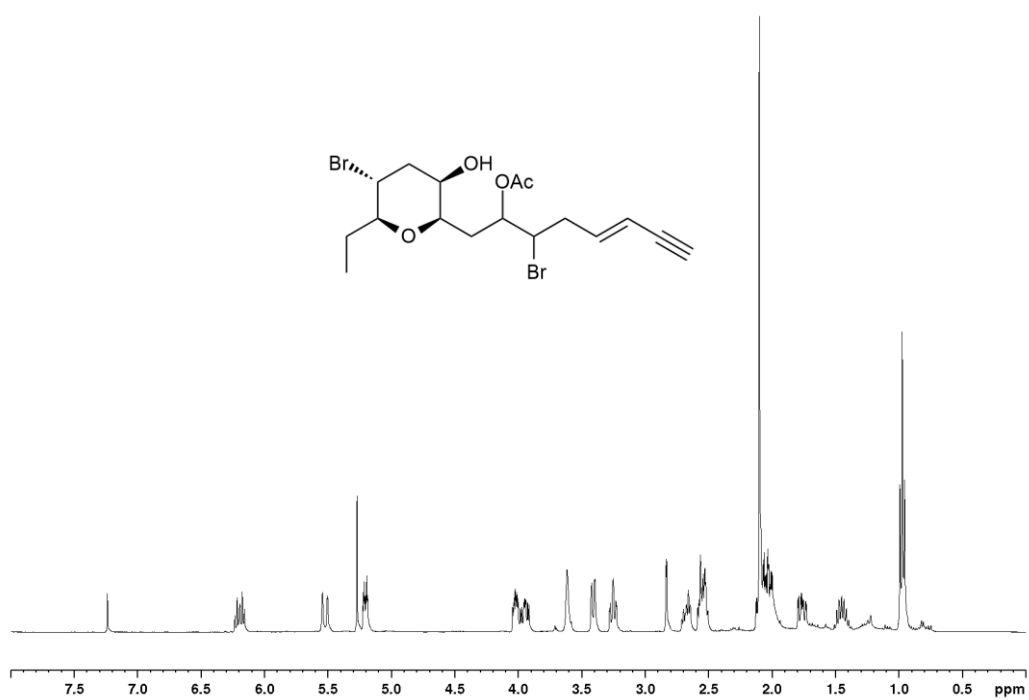


Figure S1. ¹H NMR spectrum (CDCl₃, 400 MHz) of compound 1.

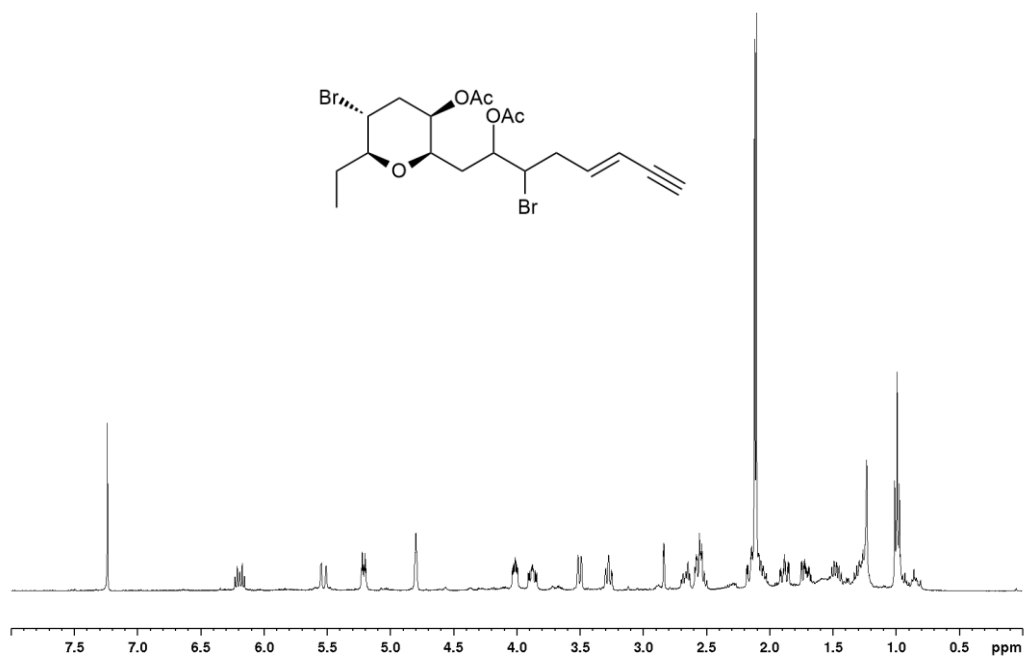


Figure S2. ¹H NMR spectrum (CDCl₃, 400 MHz) of compound 2.

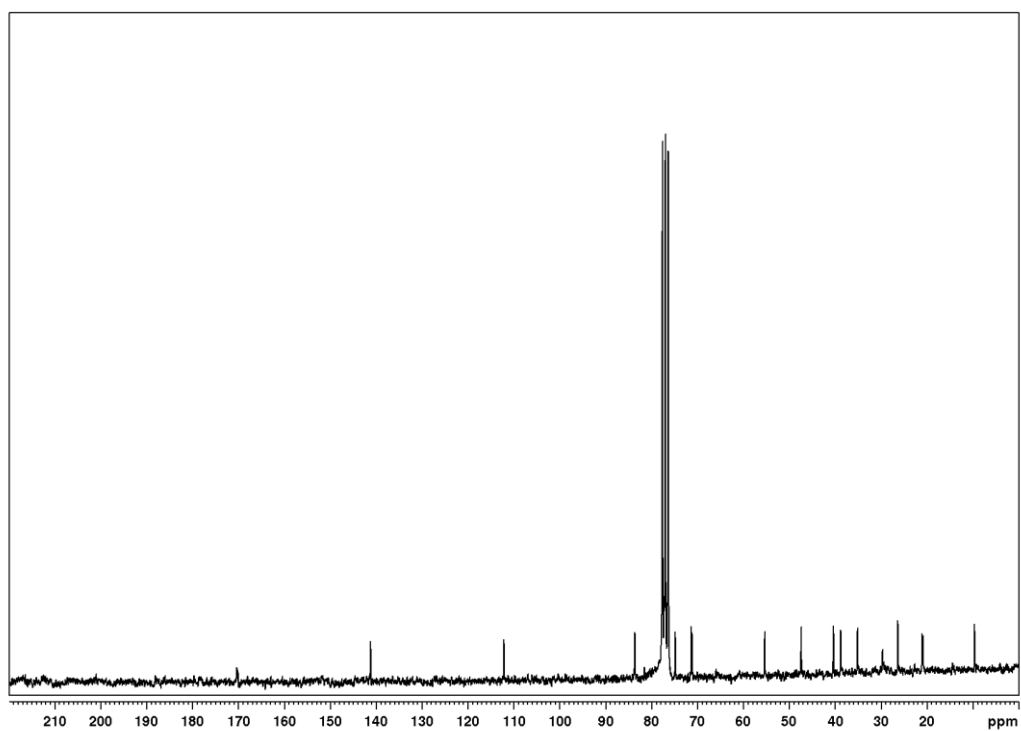


Figure S3. ^{13}C NMR spectrum (CDCl_3 , 50.3 MHz) of compound **2**.

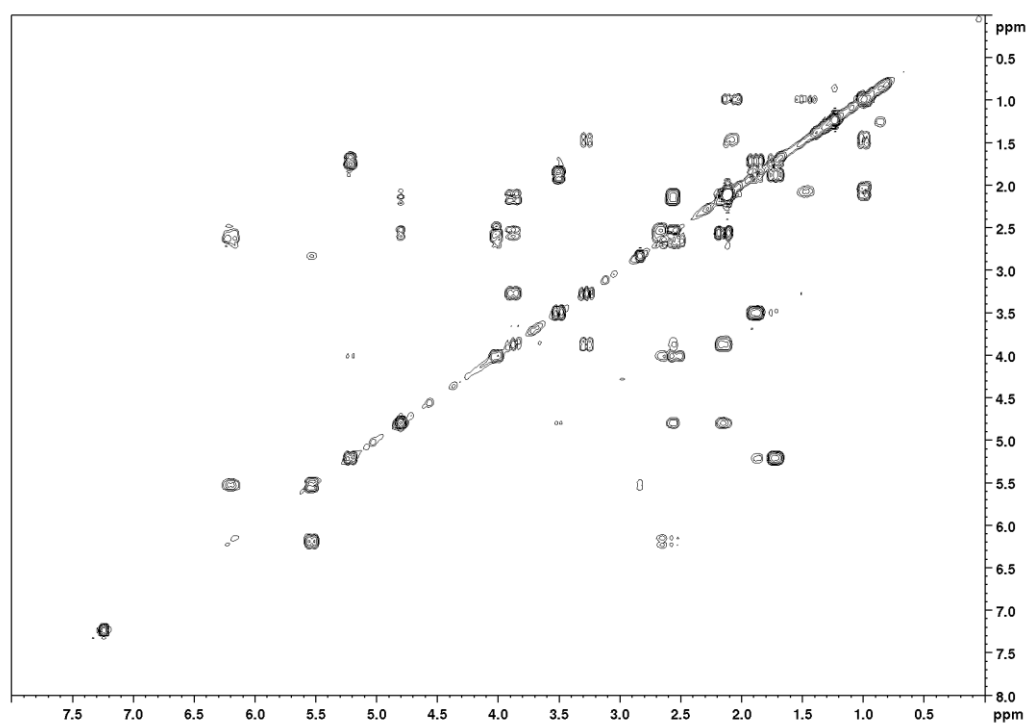


Figure S4. COSY spectrum (CDCl_3 , 400 MHz) of compound **2**.

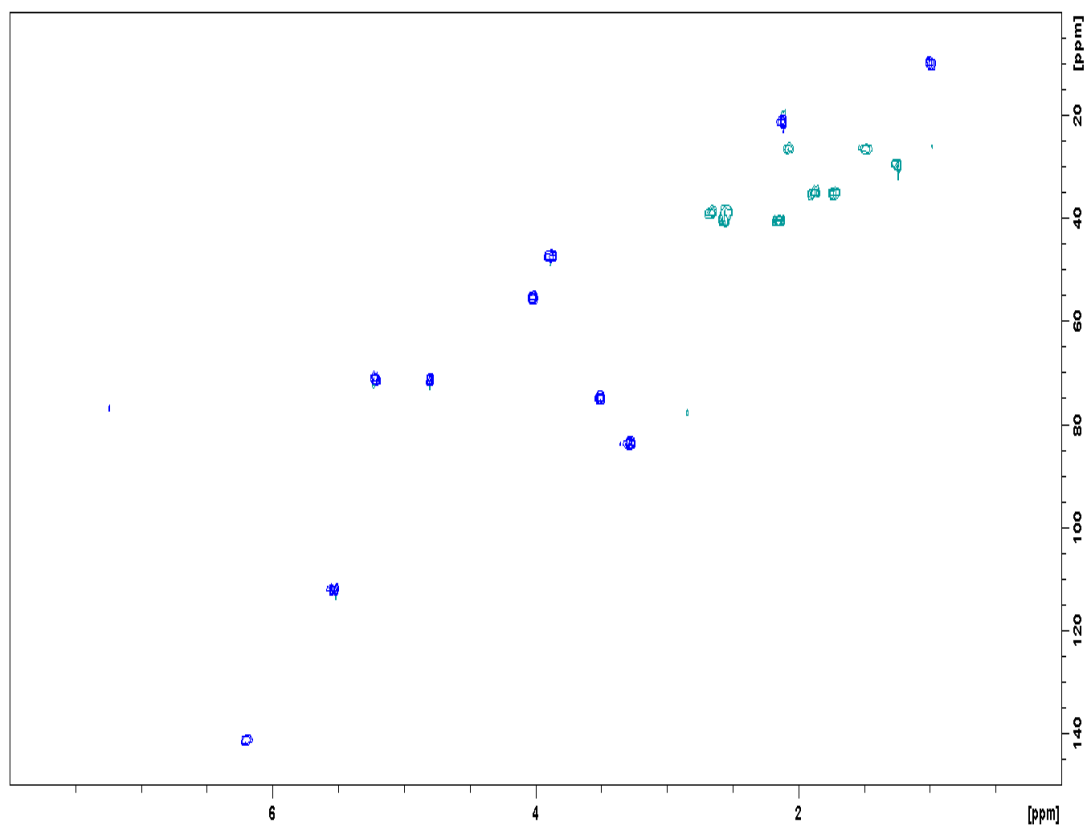


Figure S5. HSQC spectrum (CDCl_3 , 400 MHz) of compound **2**.

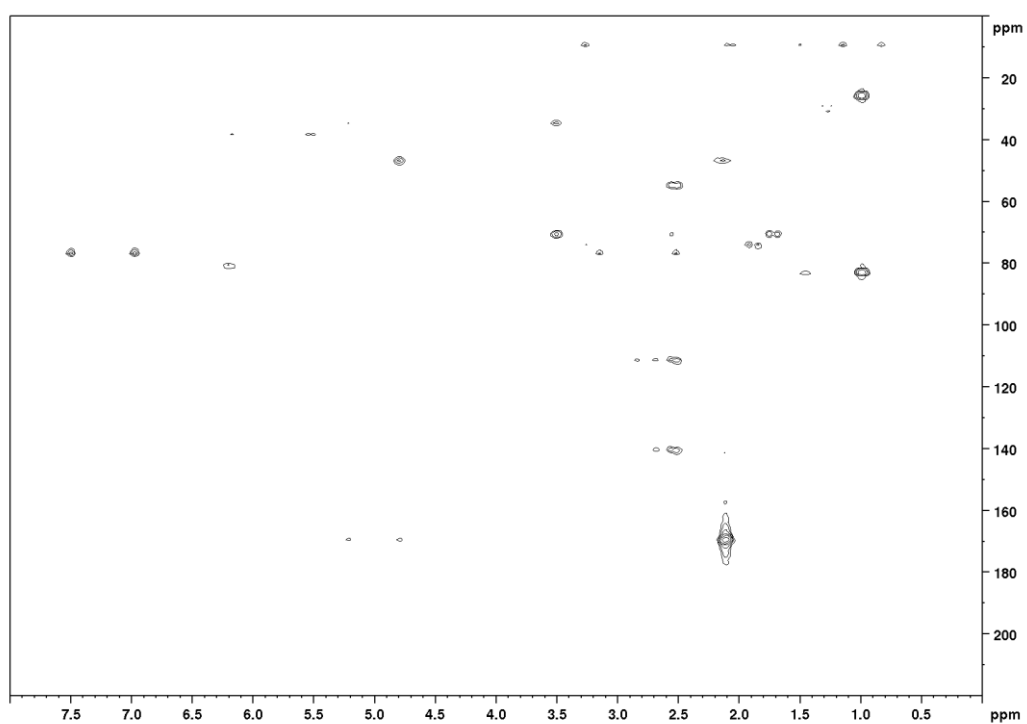


Figure S6. HMBC spectrum (CDCl_3 , 400 MHz) of compound **2**.

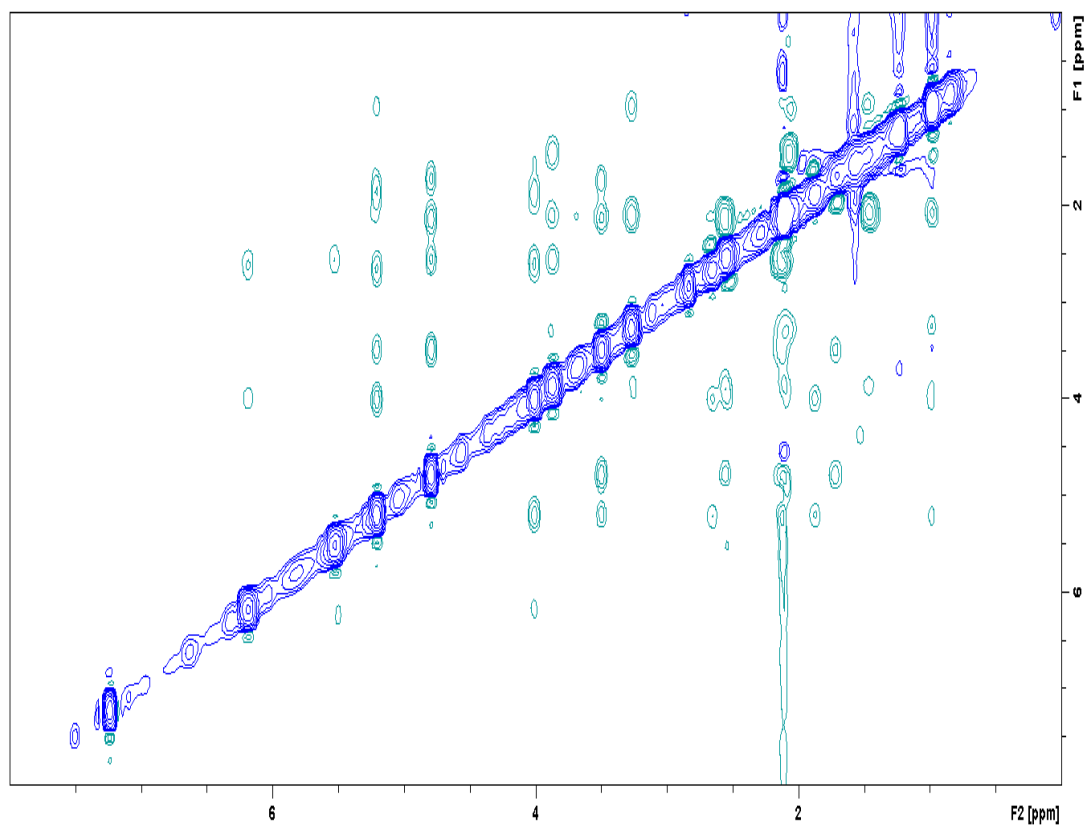


Figure S7. NOESY spectrum (CDCl_3 , 400 MHz) of compound **2**.

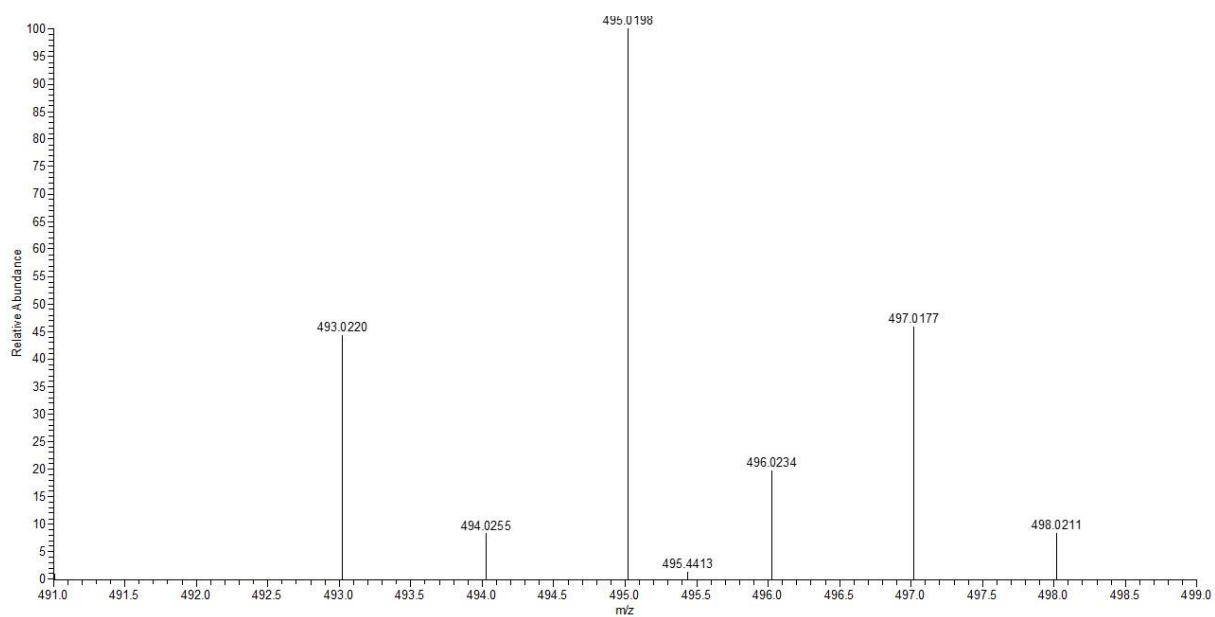


Figure S8. HR-APCIMS of compound **2**.

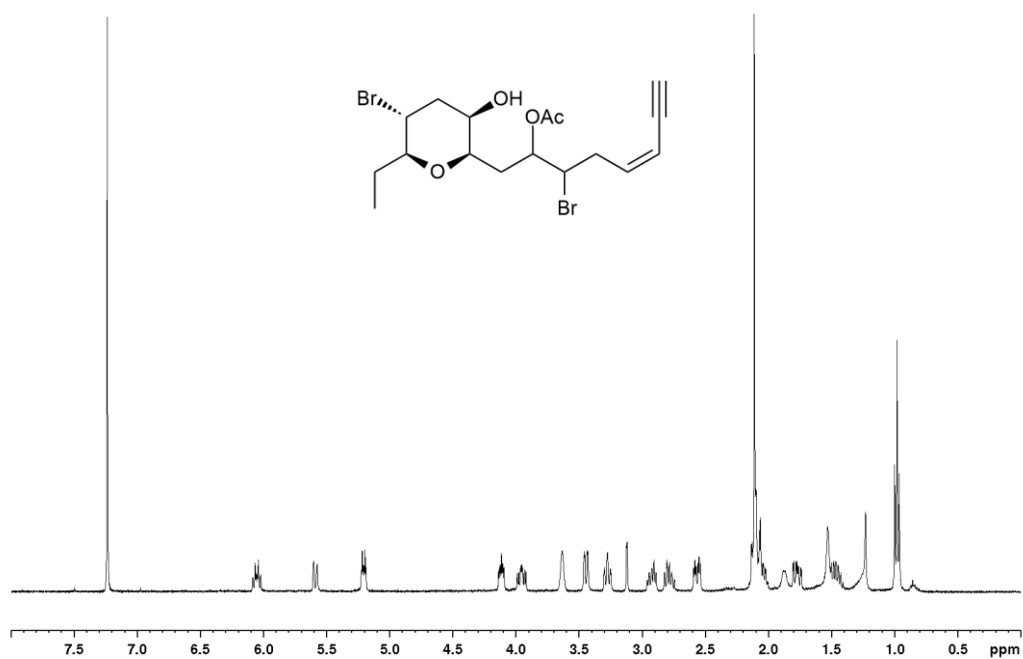


Figure S9. ¹H NMR spectrum (CDCl₃, 400 MHz) of compound 3.

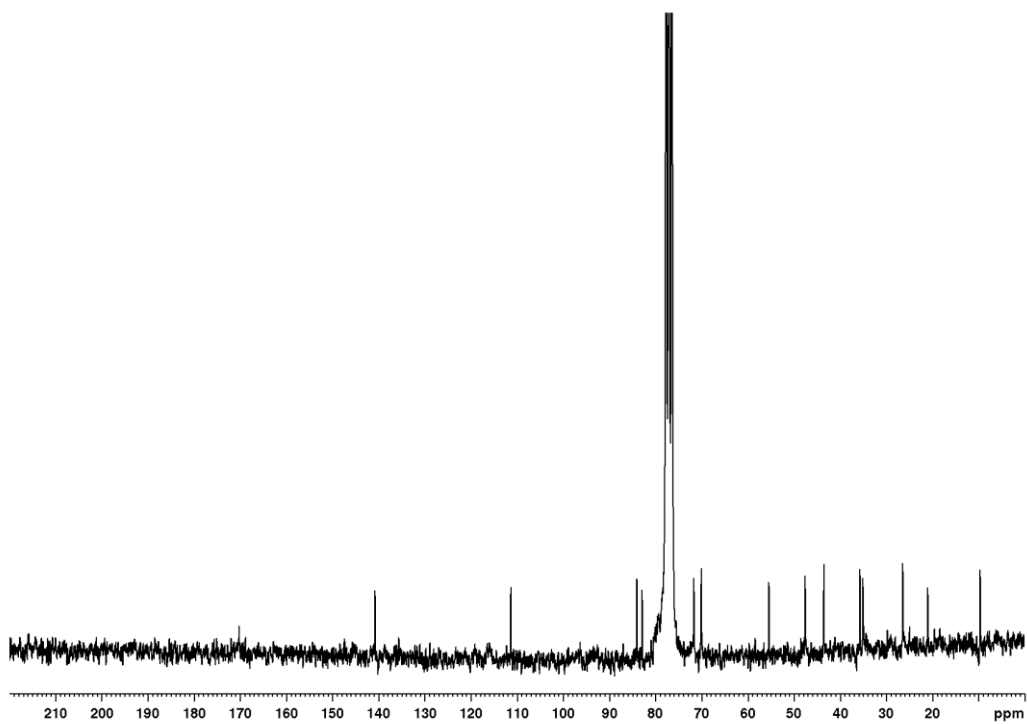


Figure S10. ¹³C NMR spectrum (CDCl₃, 50.3 MHz) of compound 3.

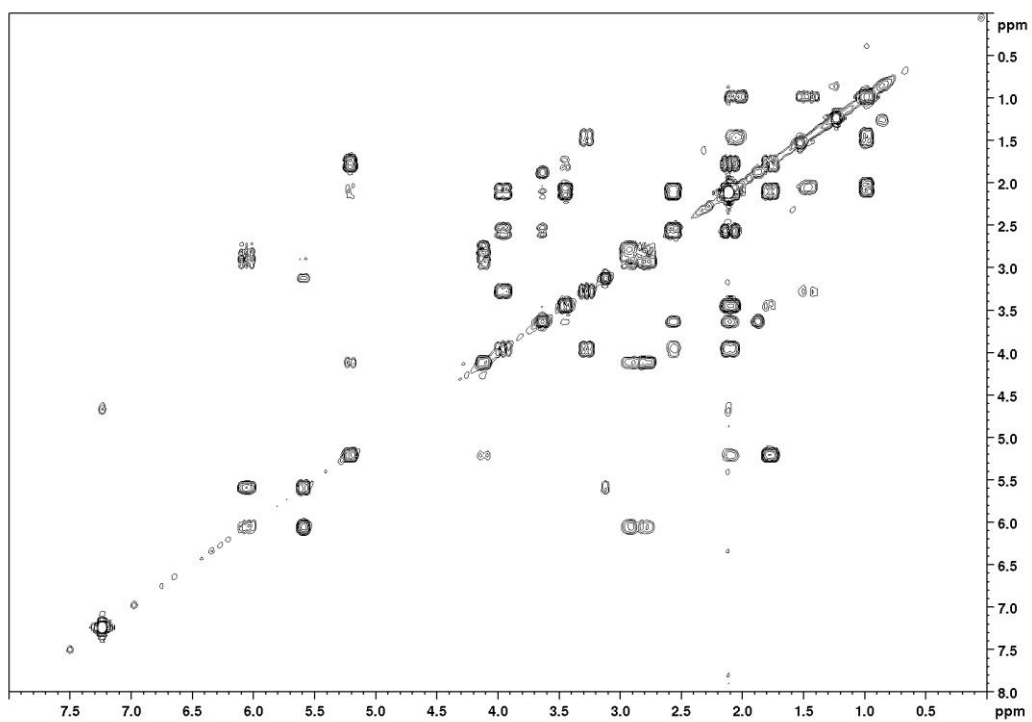


Figure S11. COSY spectrum (CDCl₃, 400 MHz) of compound 3.

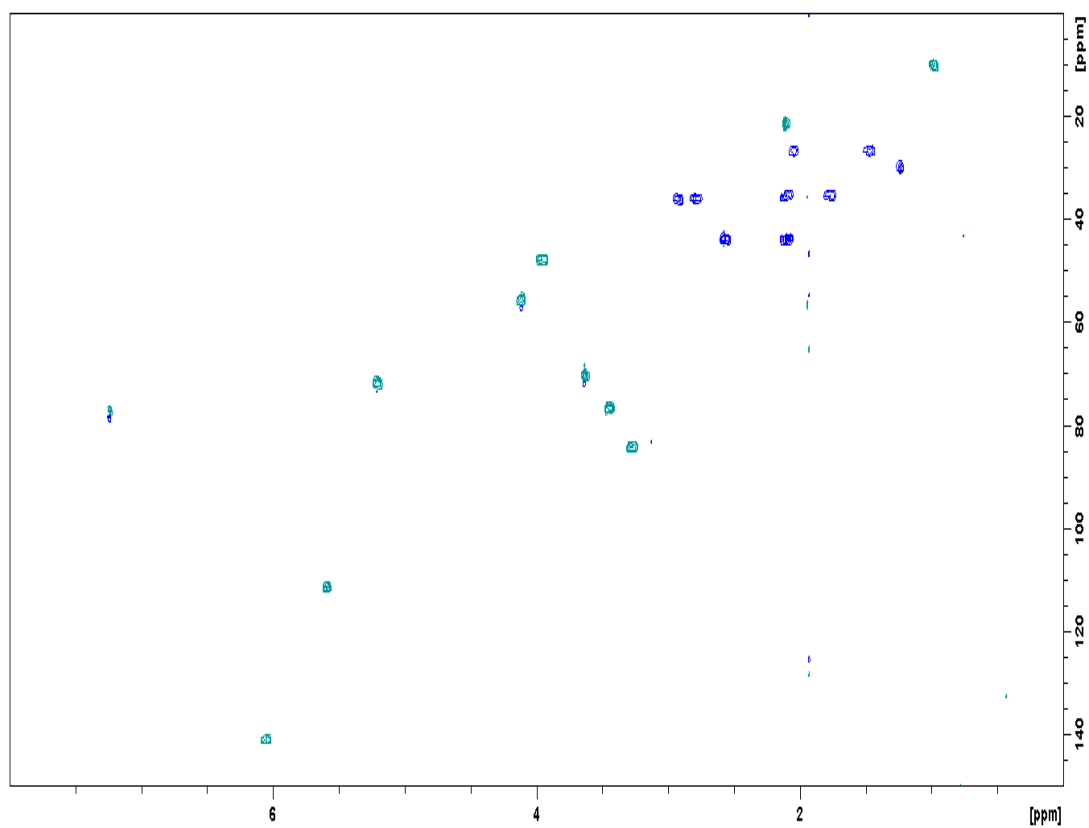


Figure S12. HSQC spectrum (CDCl₃, 400 MHz) of compound 3.

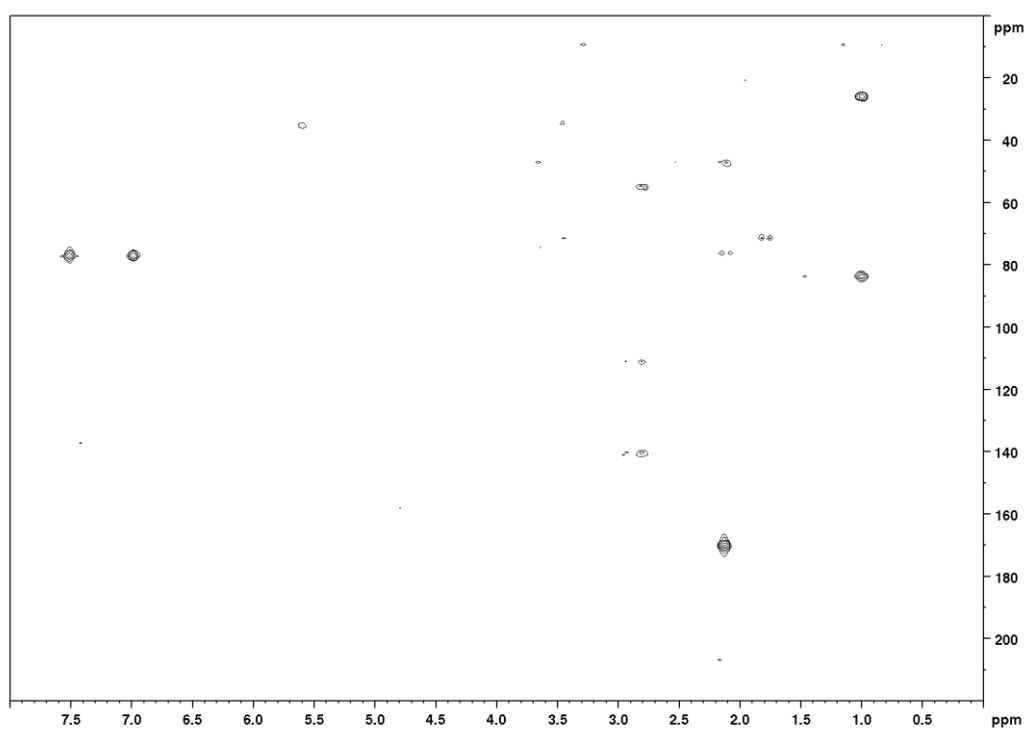


Figure S13. HMBC spectrum (CDCl_3 , 400 MHz) of compound **3**.

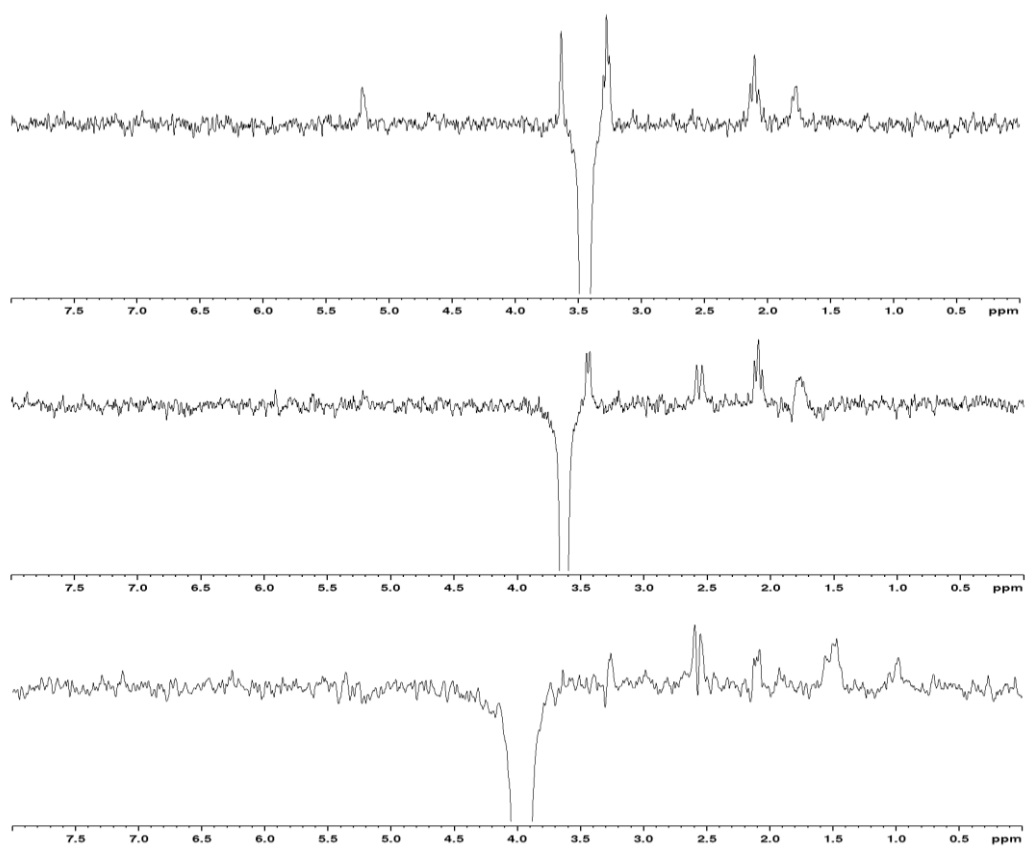


Figure S14. 1D-NOE spectra (CDCl_3 , 400 MHz) of compound **3**.

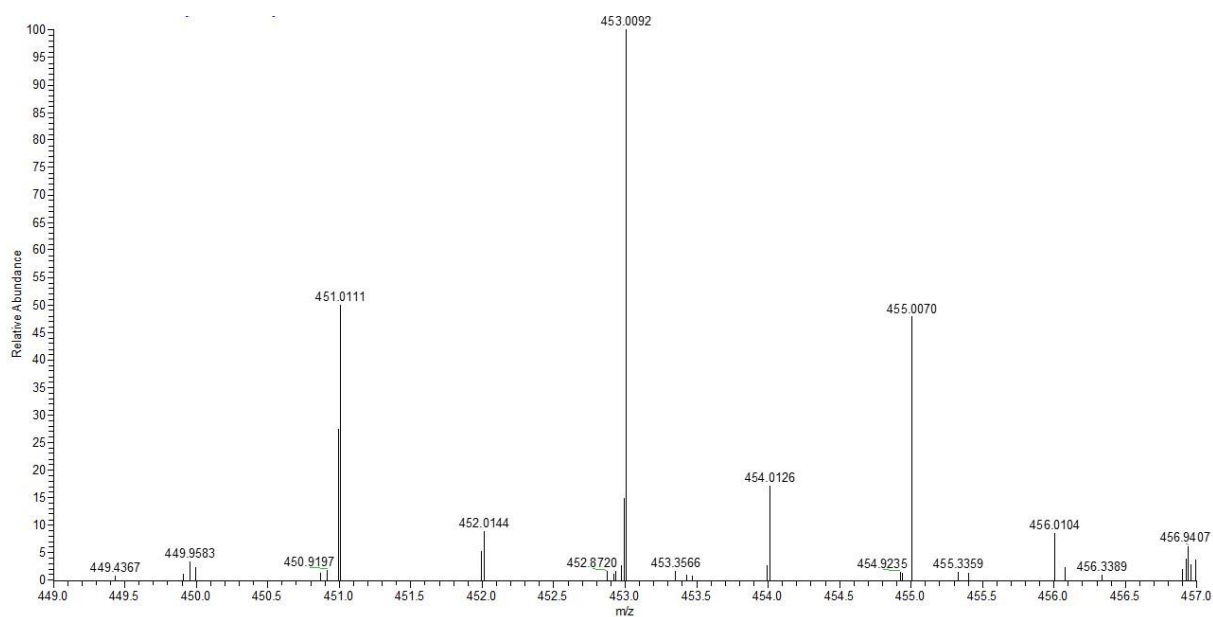


Figure S15. HR-APCIMS of compound **3**.

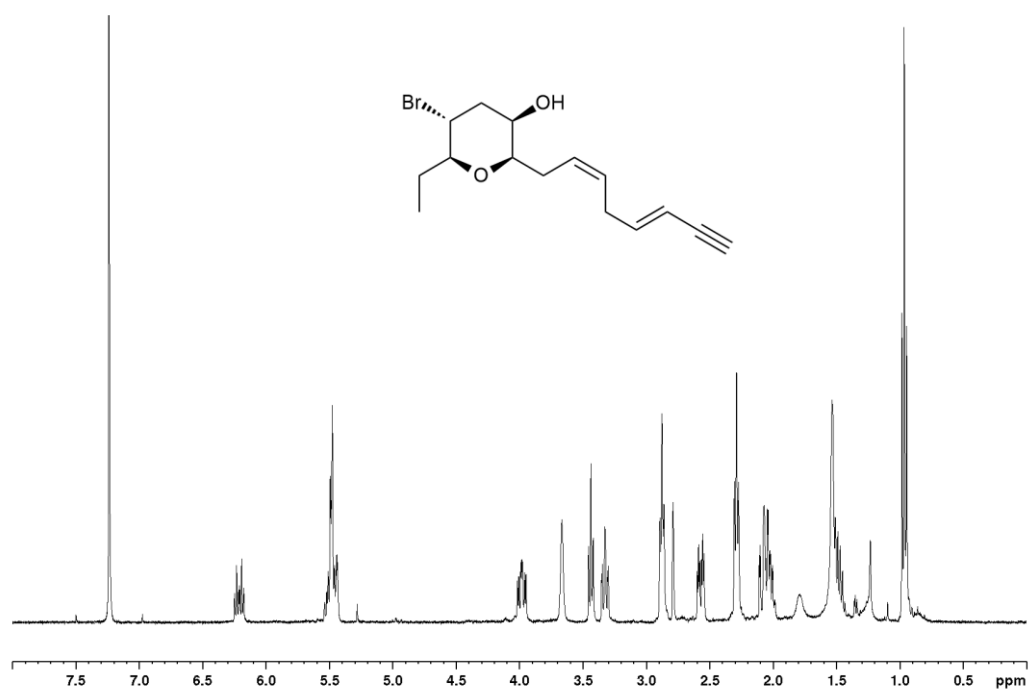


Figure S16. ^1H NMR spectrum (CDCl_3 , 400 MHz) of compound **4**.

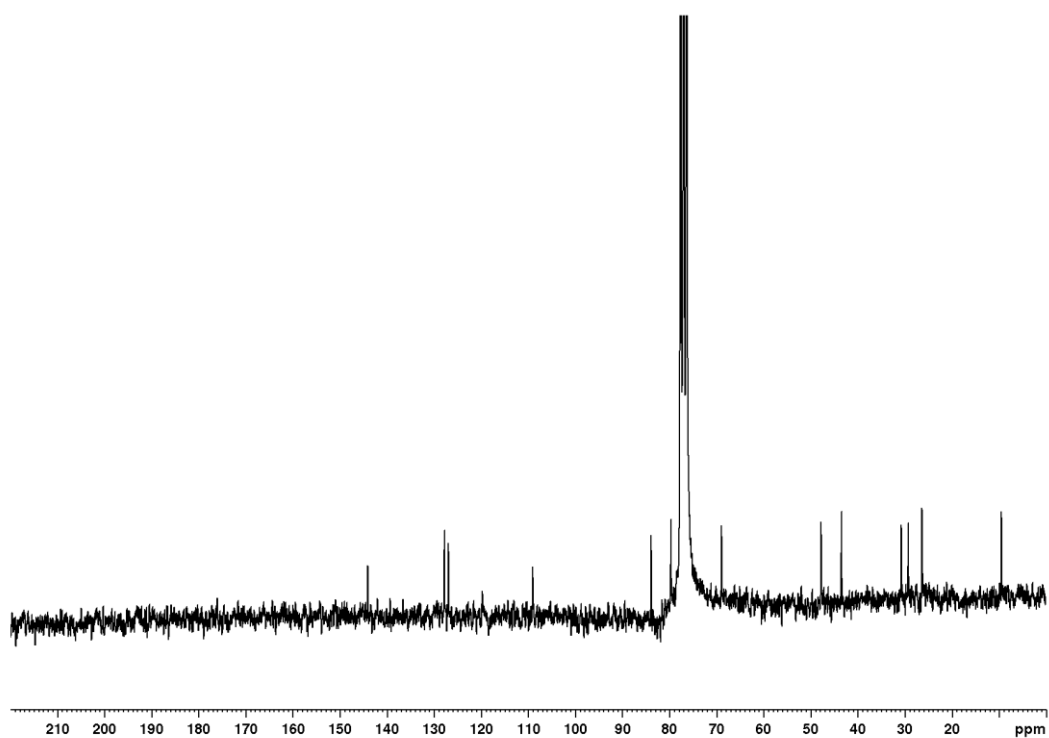


Figure S17. ^{13}C NMR spectrum (CDCl_3 , 50.3 MHz) of compound **4**.

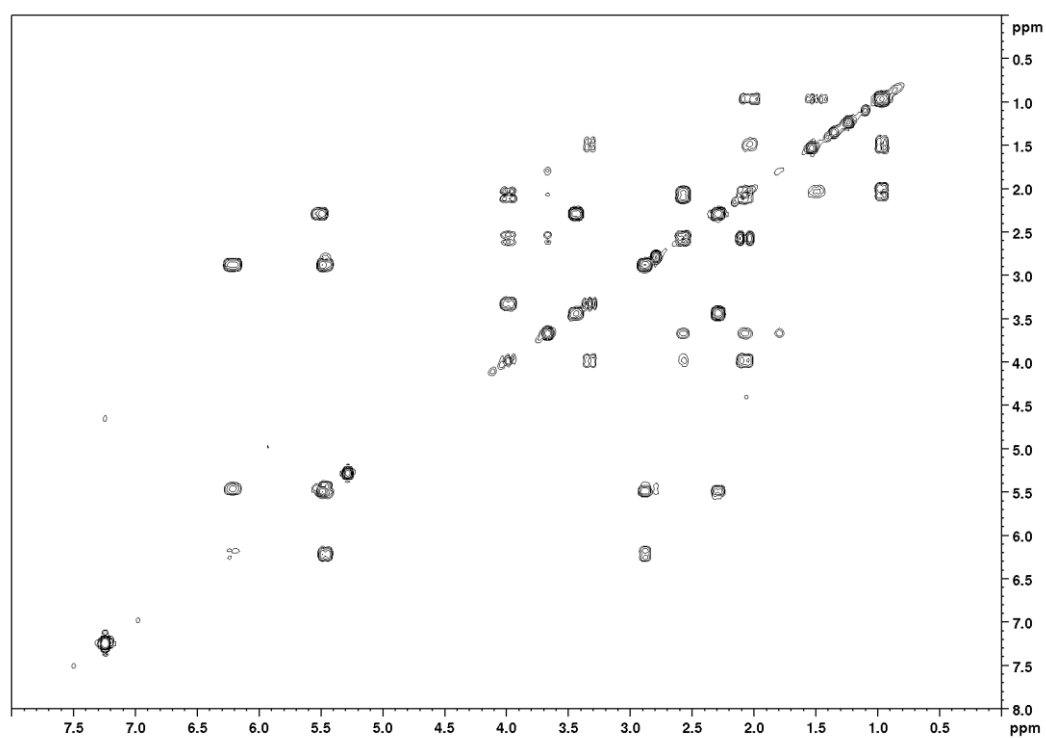


Figure S18. COSY spectrum (CDCl_3 , 400 MHz) of compound **4**.

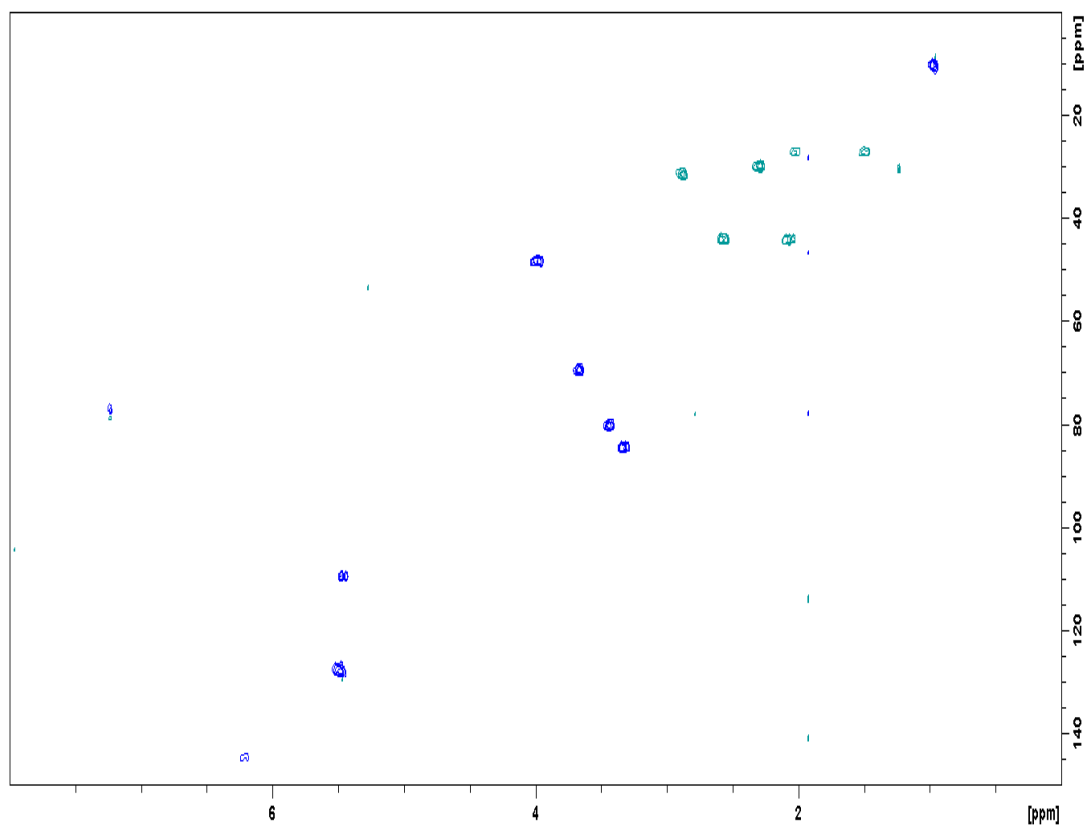


Figure S19. HSQC spectrum (CDCl_3 , 400 MHz) of compound **4**.

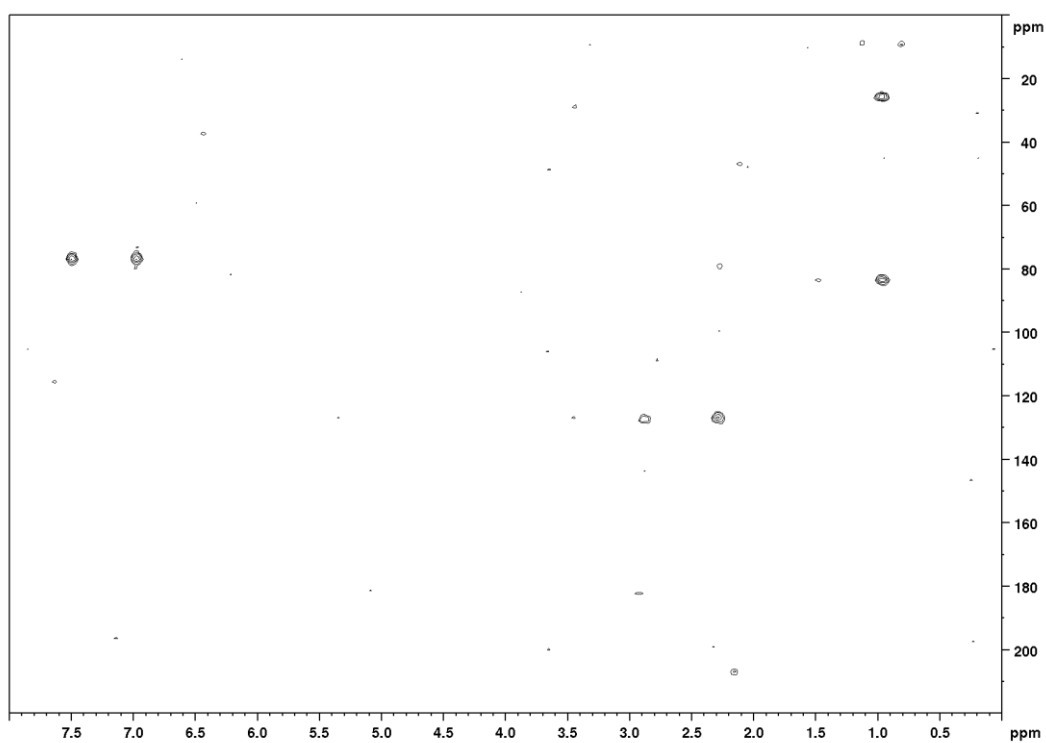


Figure S20. HMBC spectrum (CDCl_3 , 400 MHz) of compound **4**.

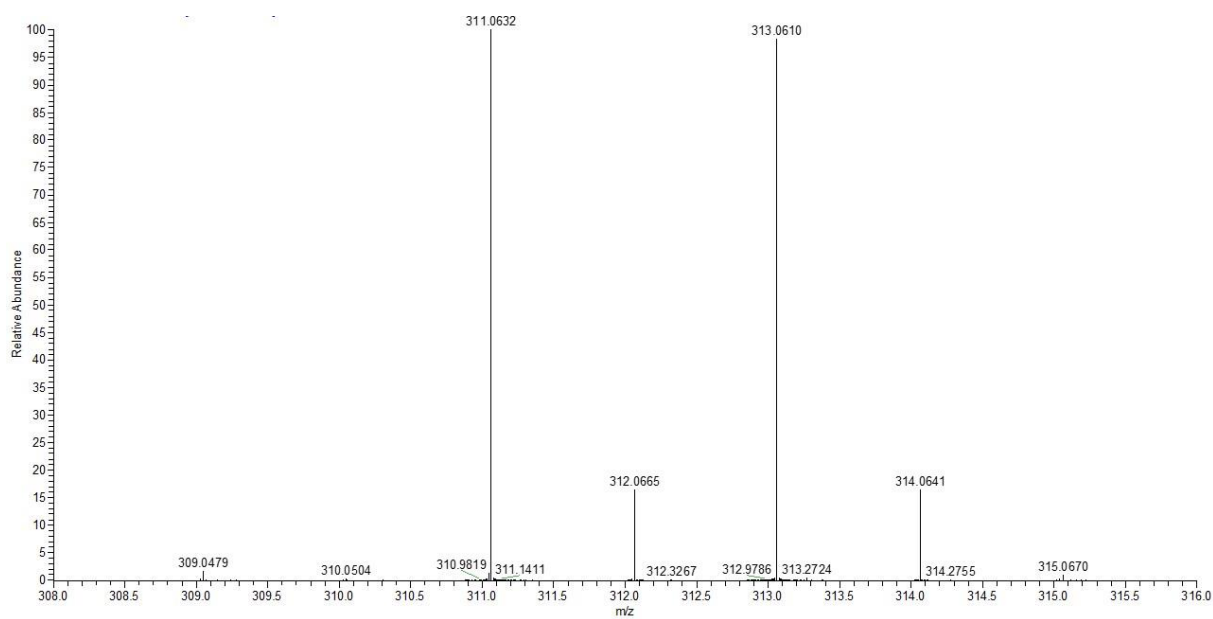


Figure S21. HR-APCIMS of compound **4**.

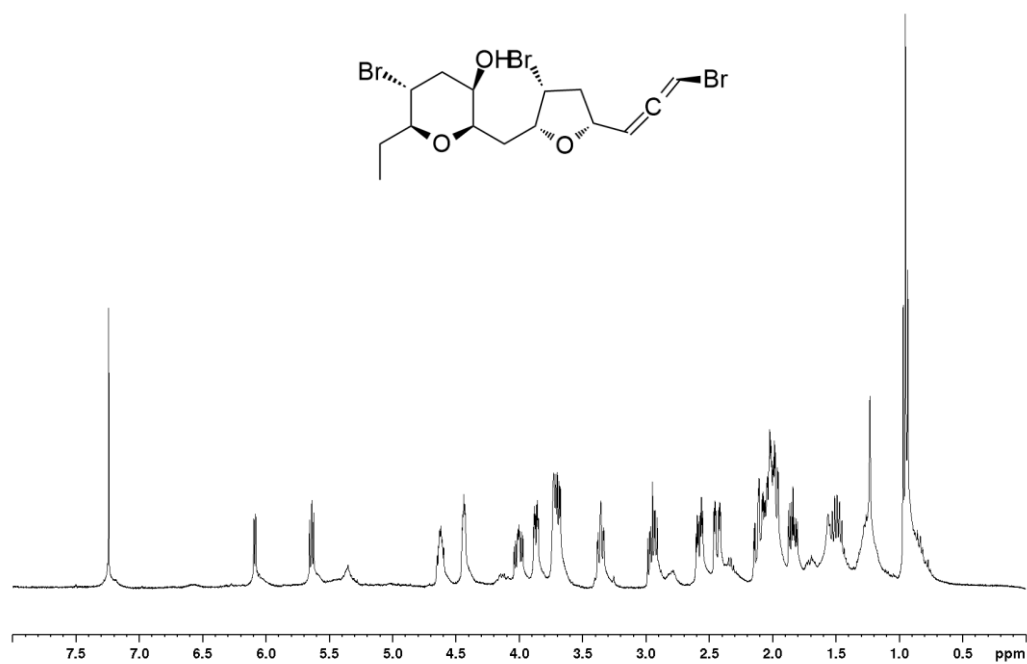


Figure S22. ^1H NMR spectrum (CDCl_3 , 400 MHz) of compound **5**.

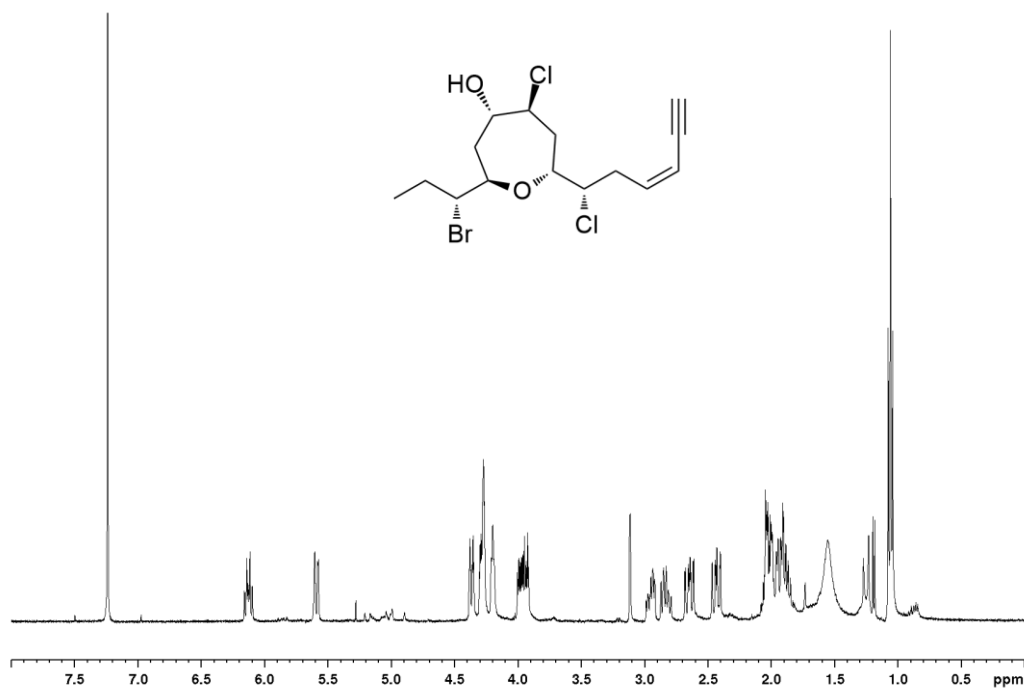


Figure S23. ¹H NMR spectrum (CDCl₃, 400 MHz) of compound 6.

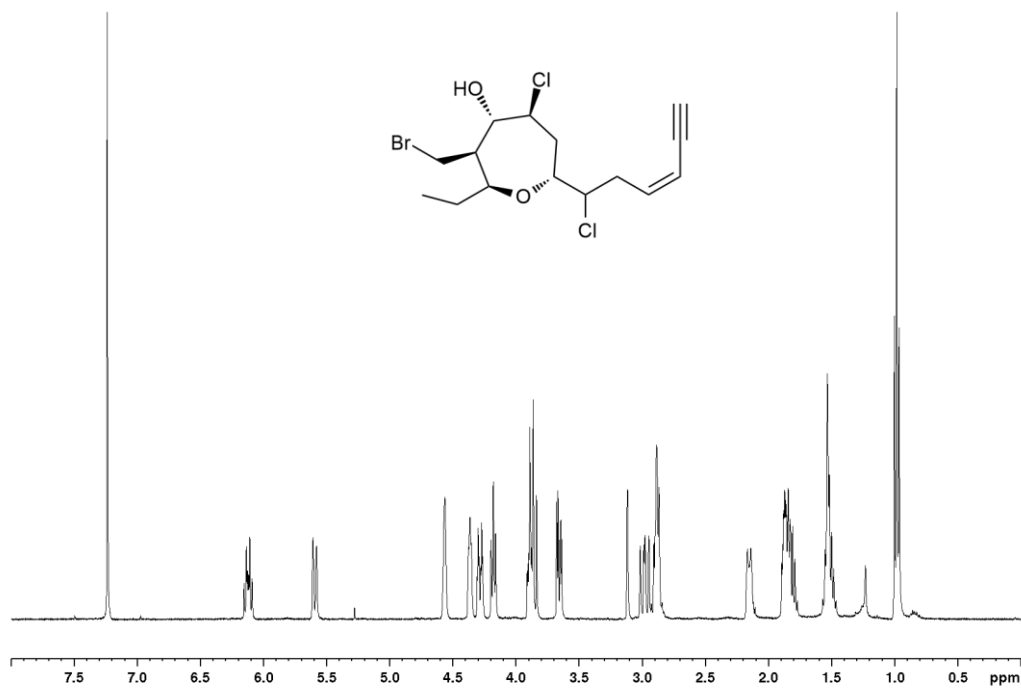


Figure S24. ¹H NMR spectrum (CDCl₃, 400 MHz) of compound 7.

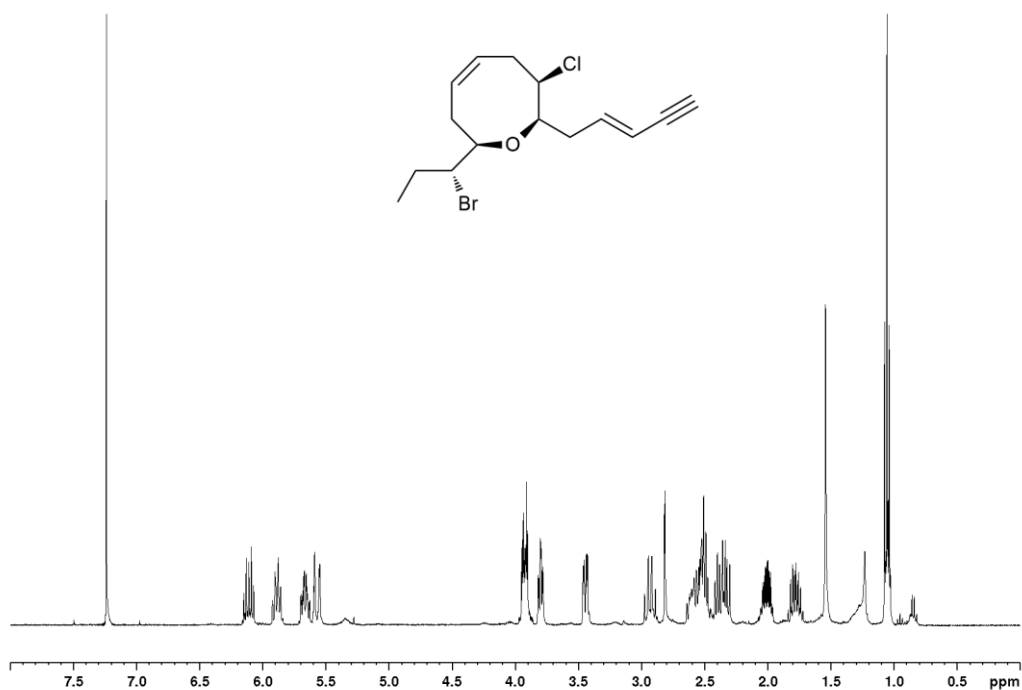


Figure S25. ¹H NMR spectrum (CDCl₃, 400 MHz) of compound 8.

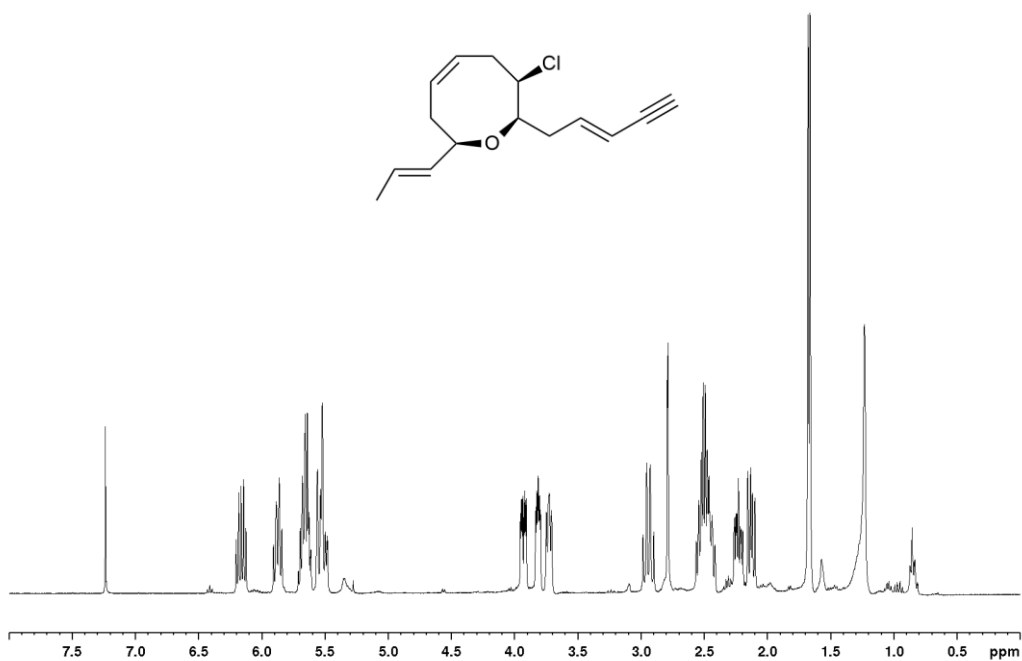


Figure S26. ¹H NMR spectrum (CDCl₃, 400 MHz) of compound 9.

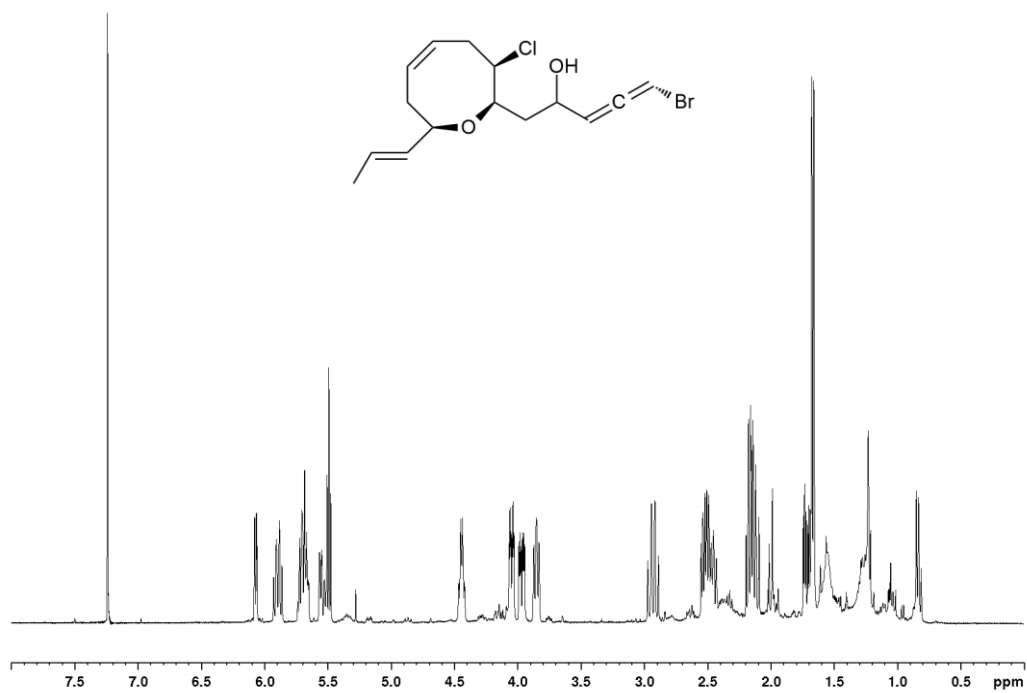


Figure S27. ¹H NMR spectrum (CDCl₃, 400 MHz) of compound 10.

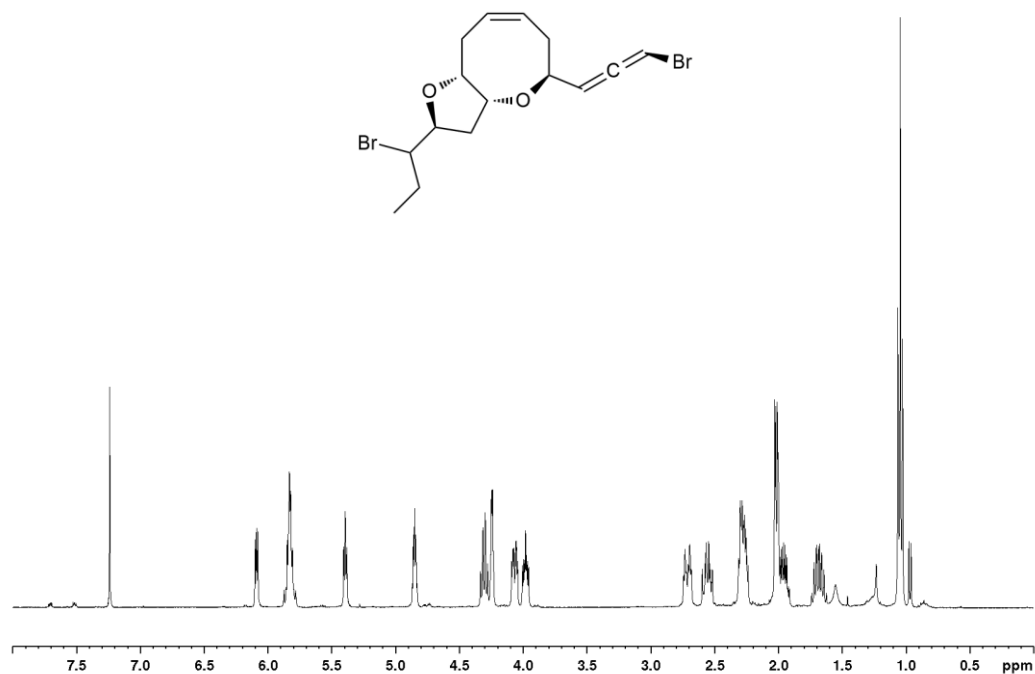


Figure S28. ¹H NMR spectrum (CDCl₃, 400 MHz) of compound 11.

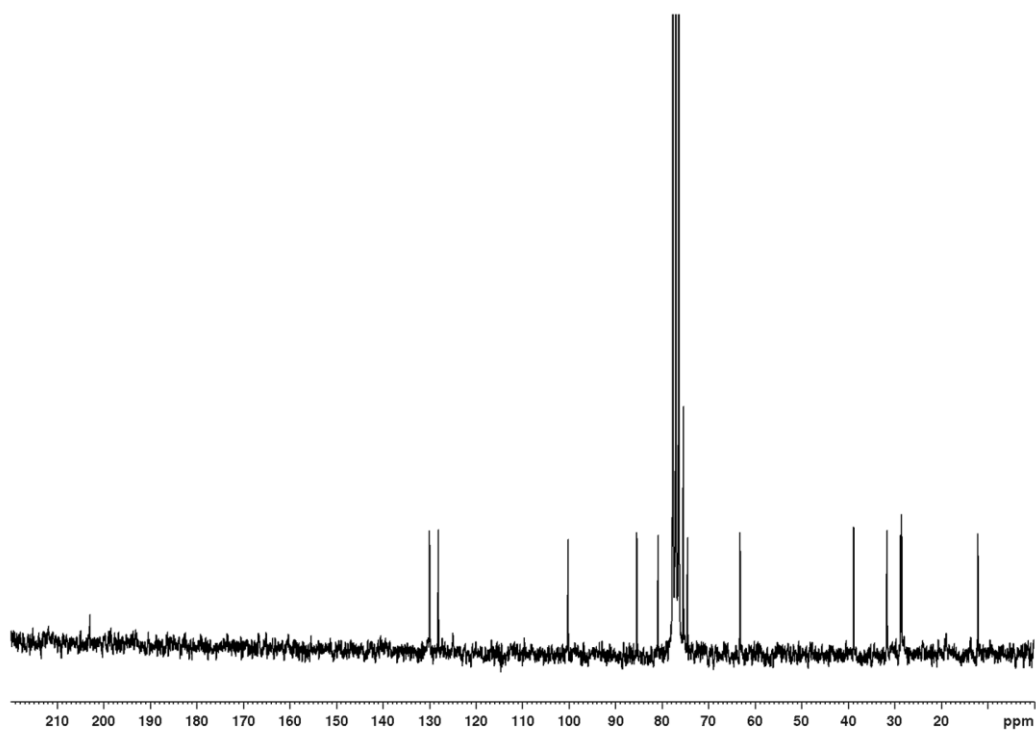


Figure S29. ^{13}C NMR spectrum (CDCl_3 , 50.3 MHz) of compound **11**.

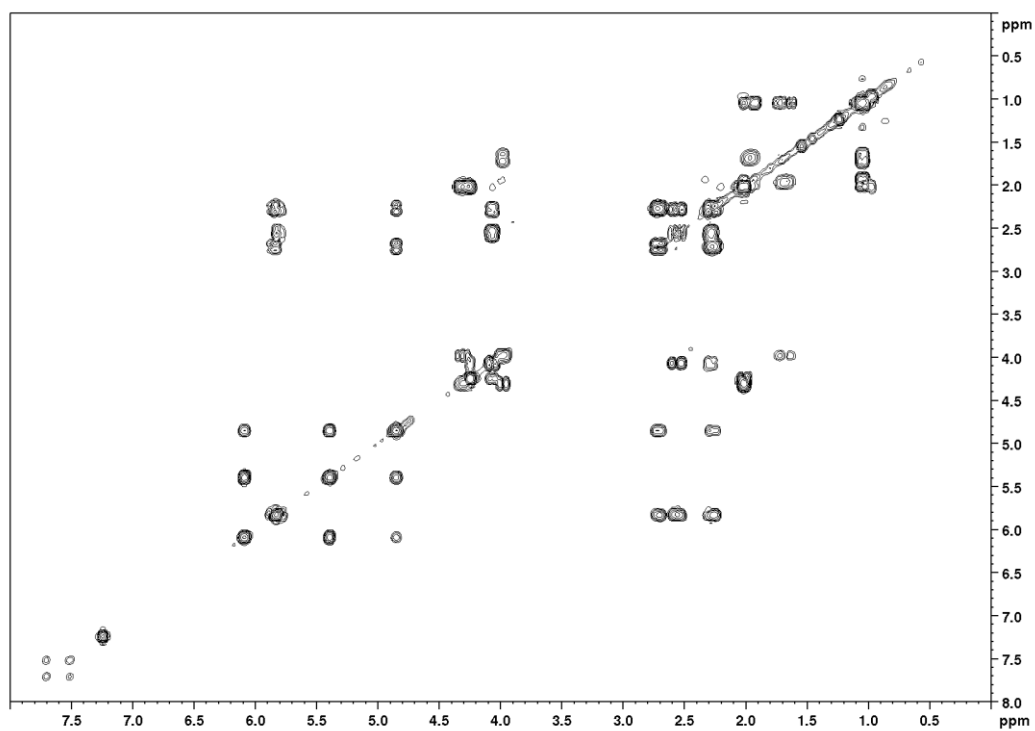


Figure S30. COSY spectrum (CDCl_3 , 400 MHz) of compound **11**.

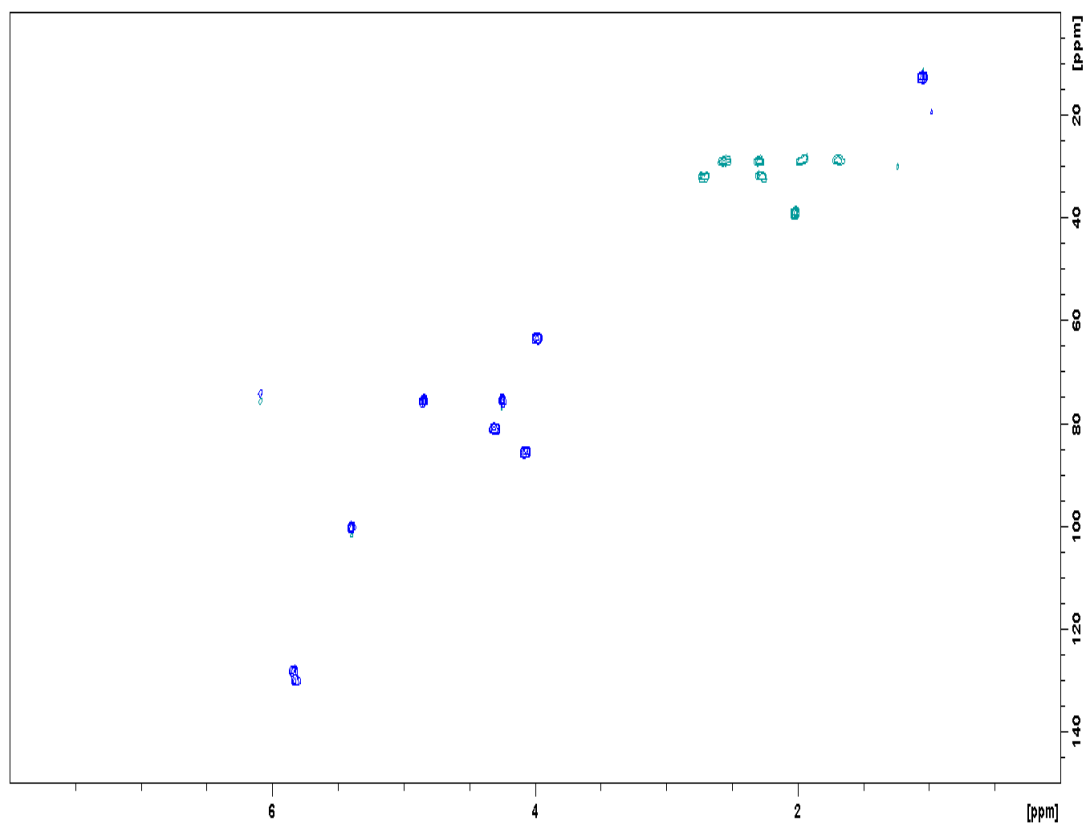


Figure S31. HSQC spectrum (CDCl_3 , 400 MHz) of compound 11.

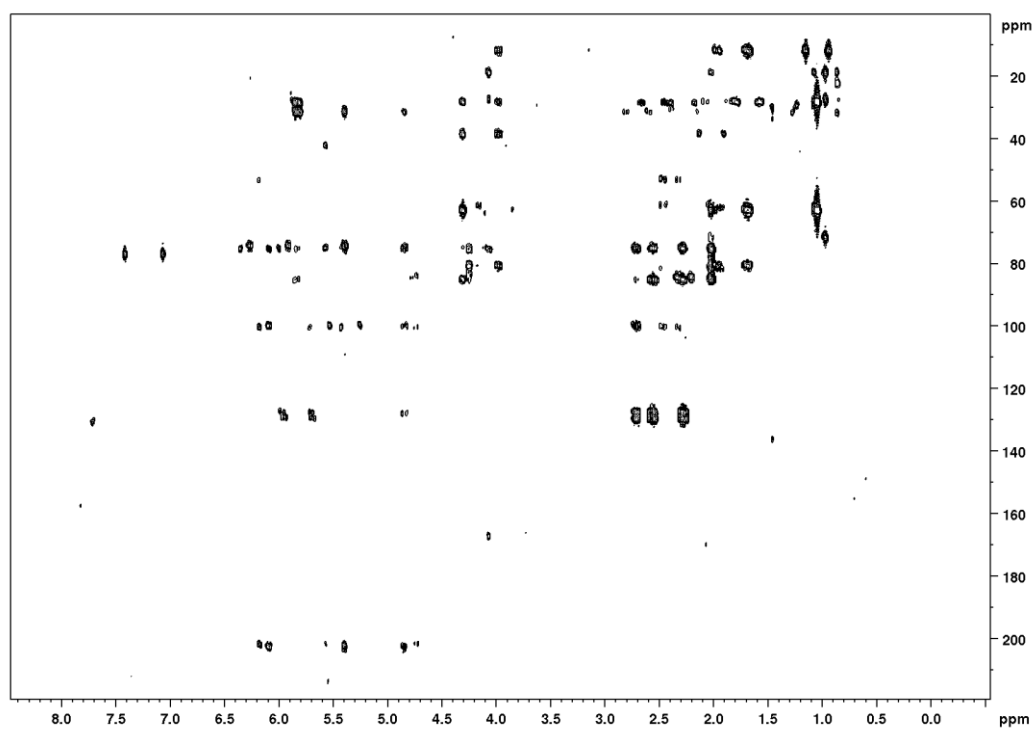


Figure S32. HMBC spectrum (CDCl_3 , 600 MHz) of compound 11.

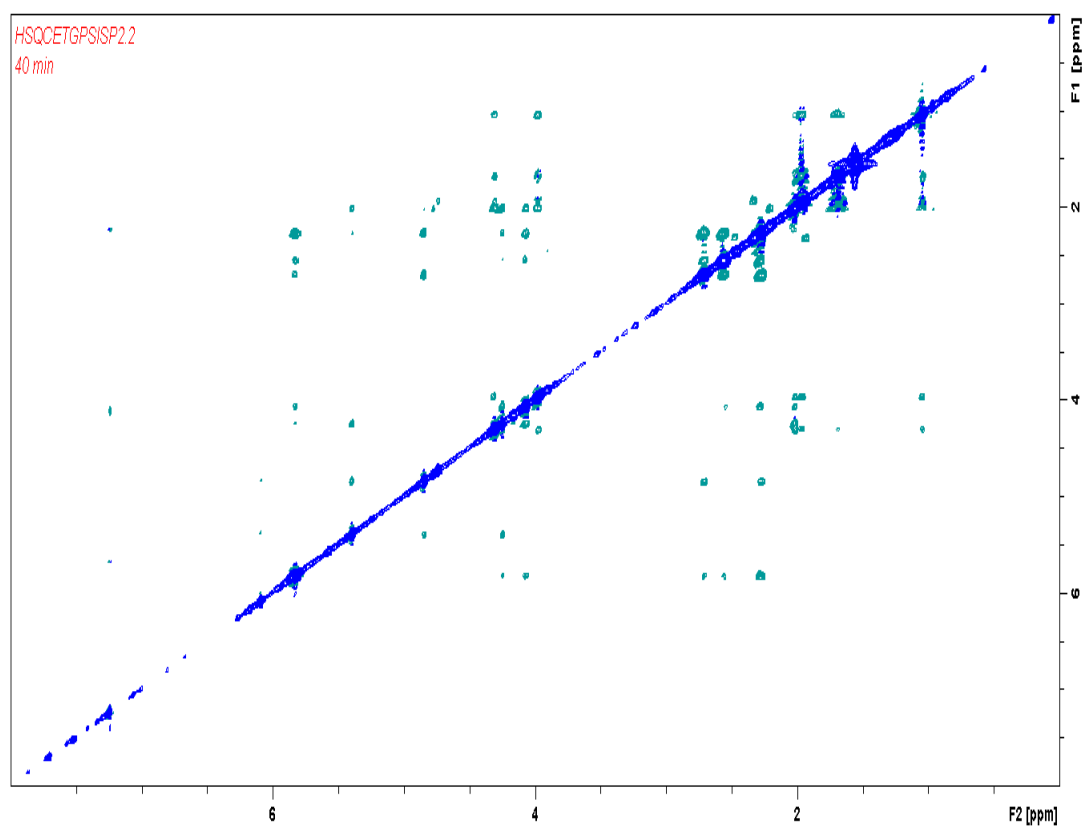


Figure S33. NOESY spectrum (CDCl_3 , 600 MHz) of compound **11**.

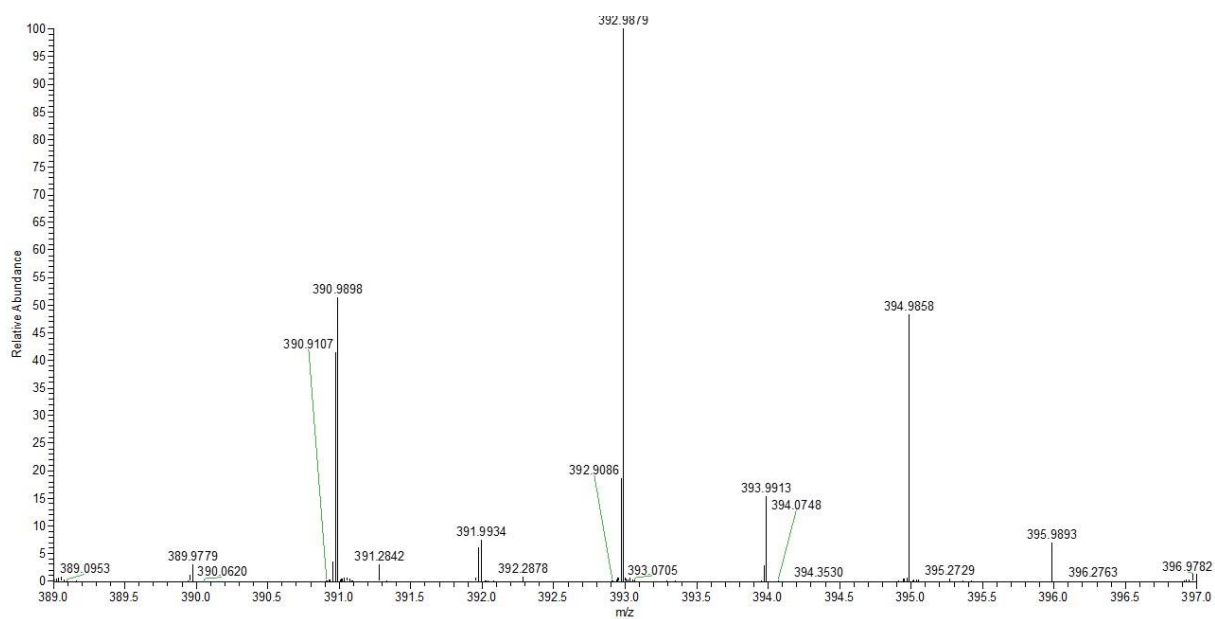


Figure S34. HR-APCIMS of compound **11**.

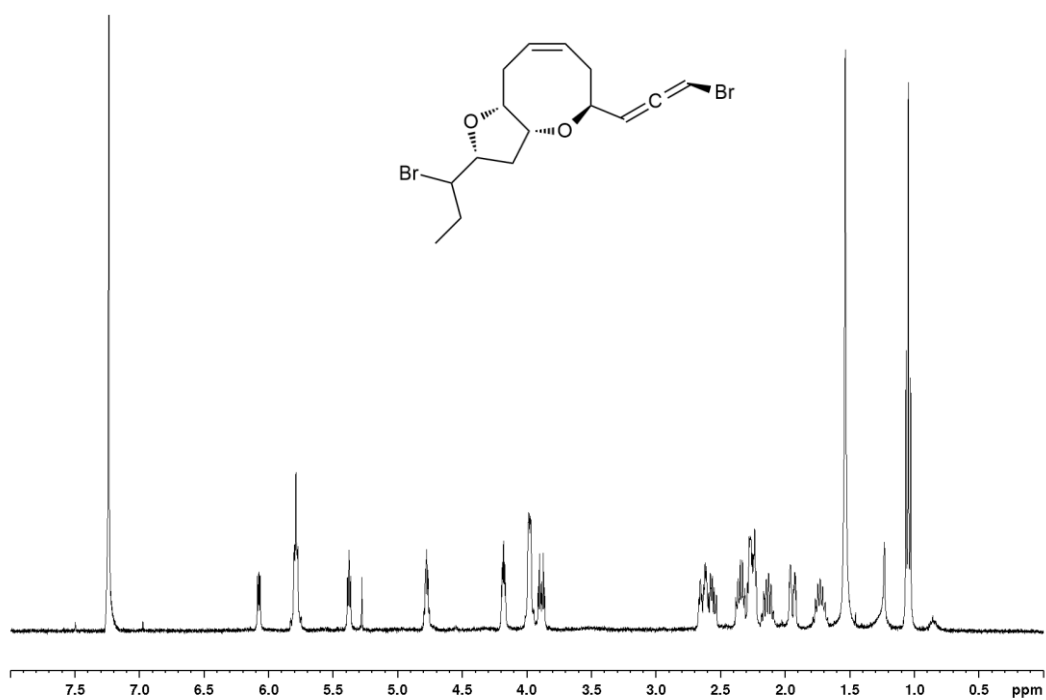


Figure S35. ¹H NMR spectrum (CDCl₃, 400 MHz) of compound 12.

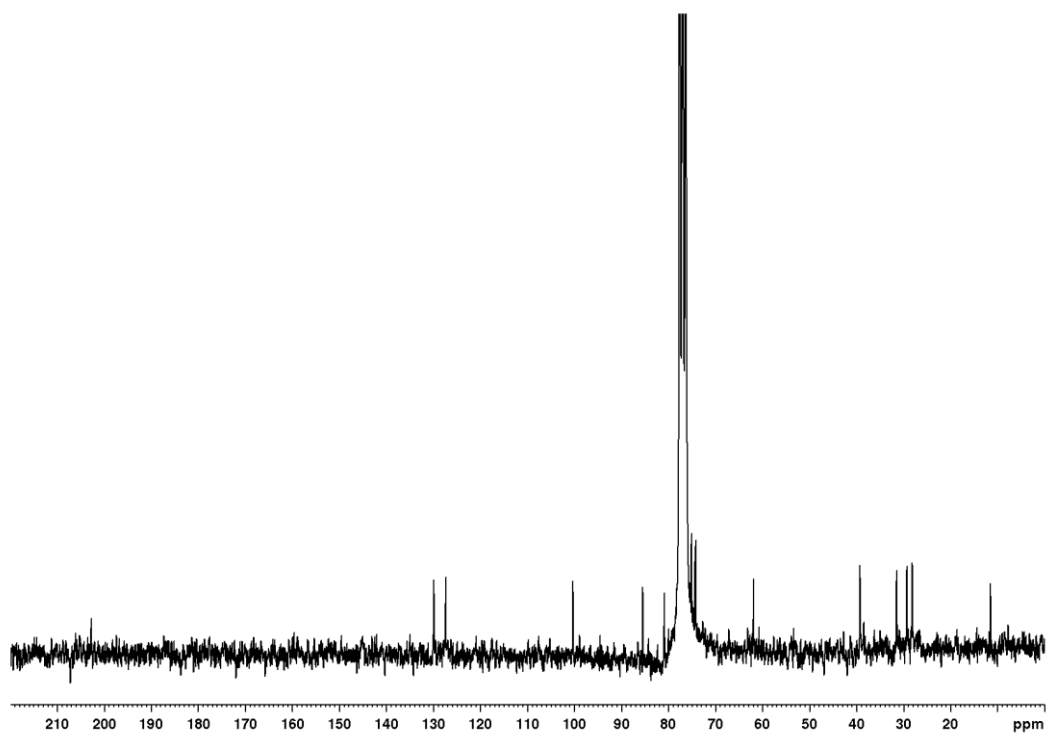


Figure S36. ¹³C NMR spectrum (CDCl₃, 50.3 MHz) of compound 12.

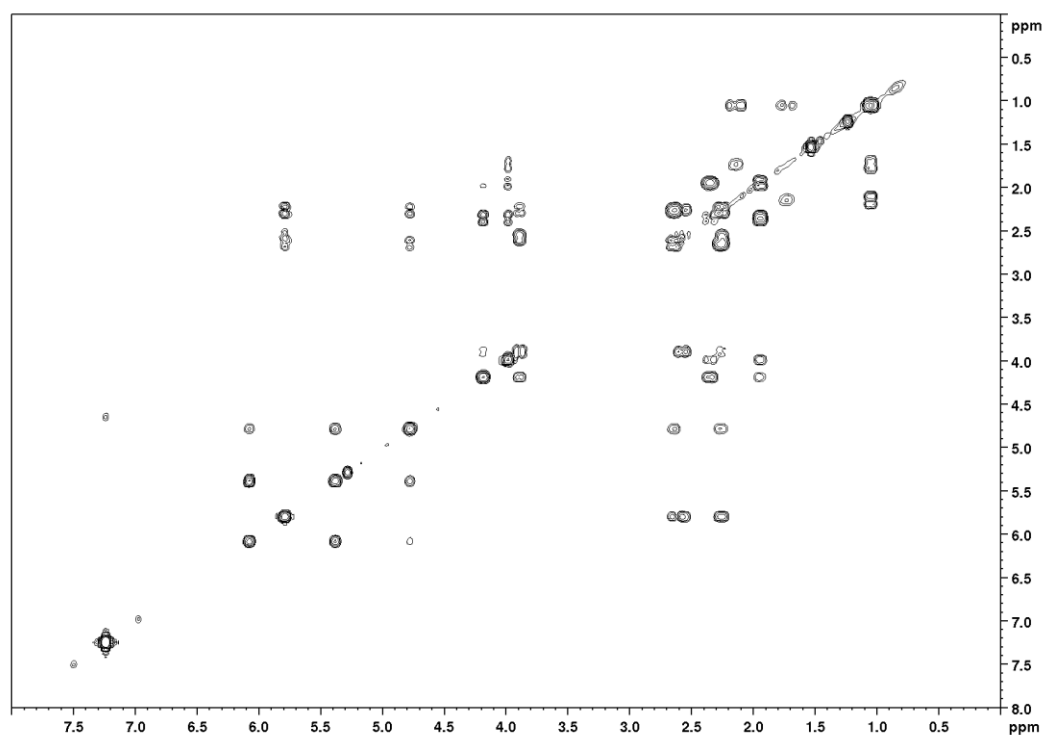


Figure S37. COSY spectrum (CDCl_3 , 400 MHz) of compound **12**.

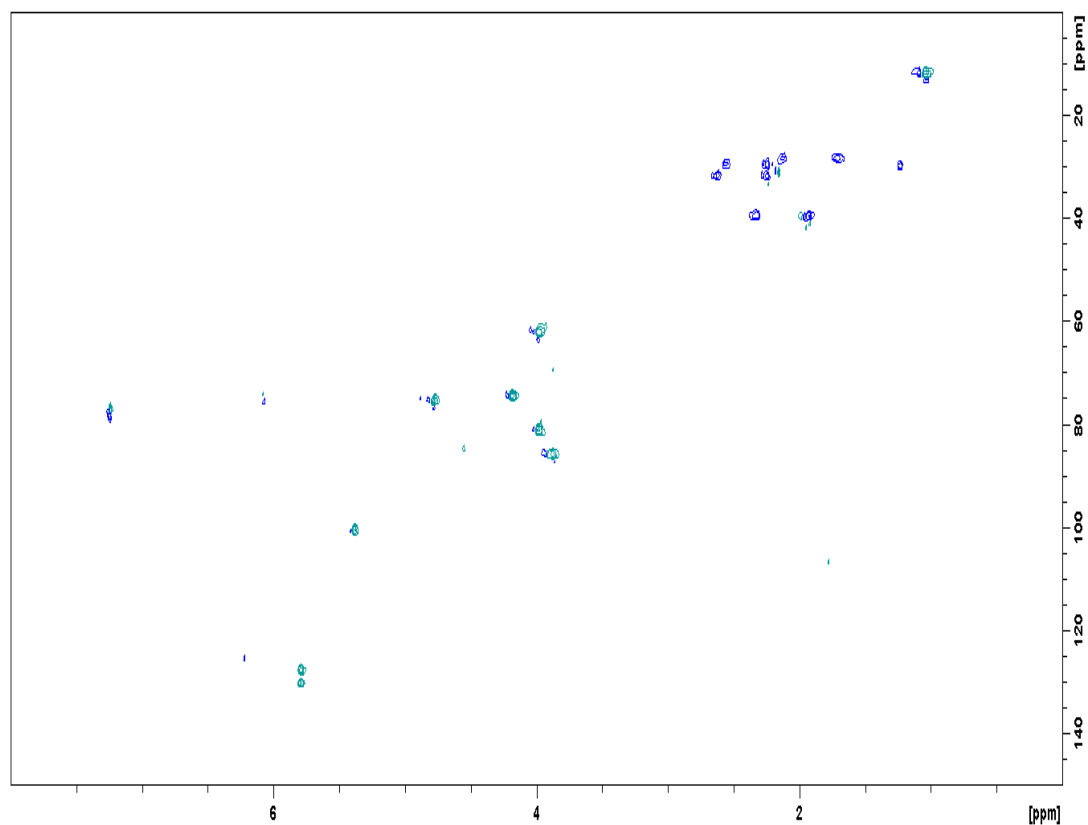


Figure S38. HSQC spectrum (CDCl_3 , 400 MHz) of compound **12**.

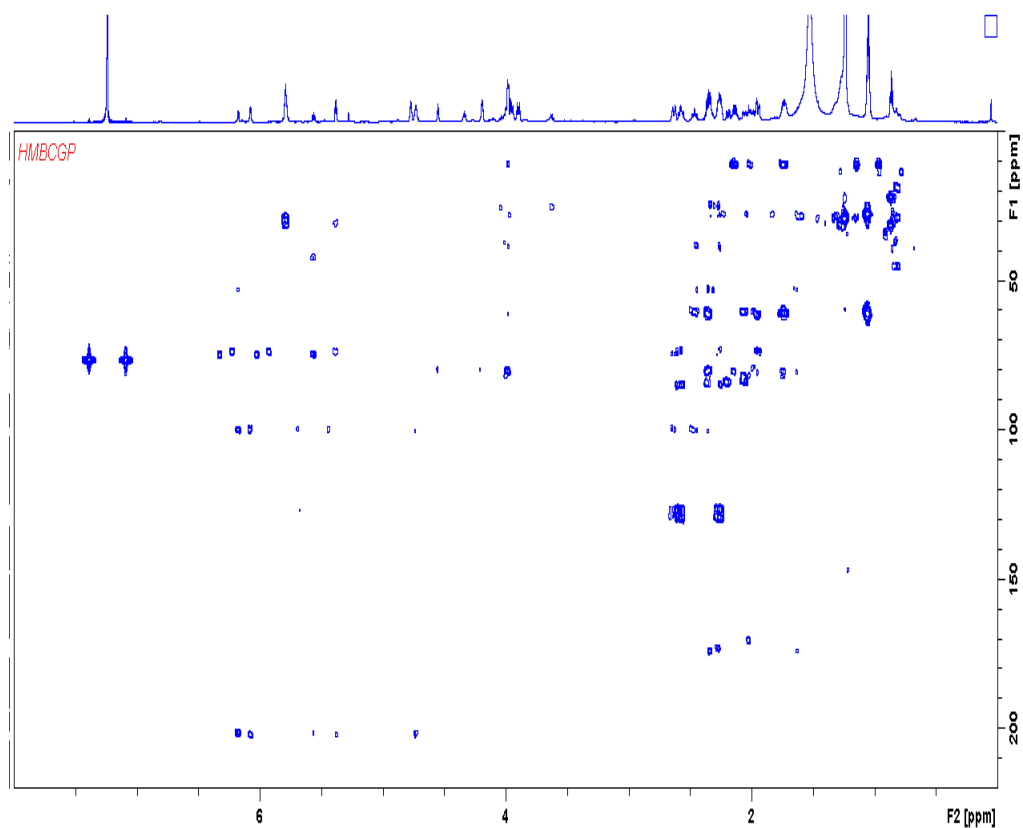


Figure S39. HMBC spectrum (CDCl_3 , 700 MHz) of compound **12** (partial decomposition was already observed).

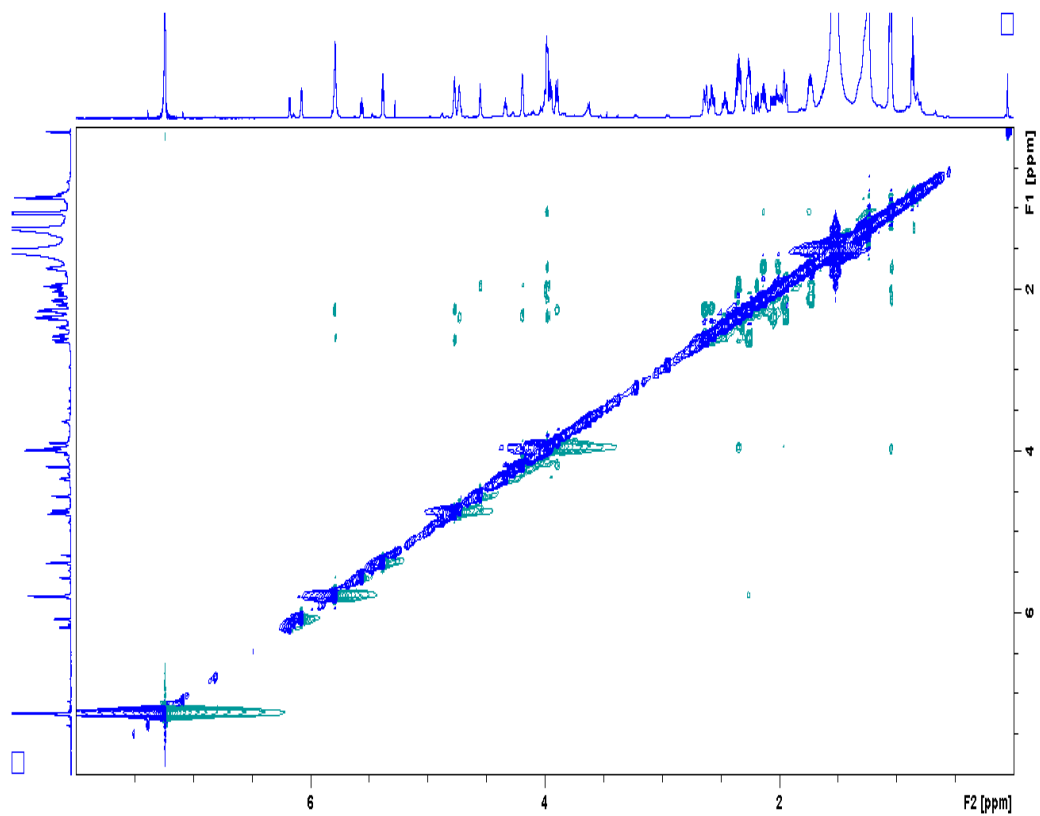


Figure S40. NOESY spectrum (CDCl_3 , 700 MHz) of compound **12** (partial decomposition was already observed).

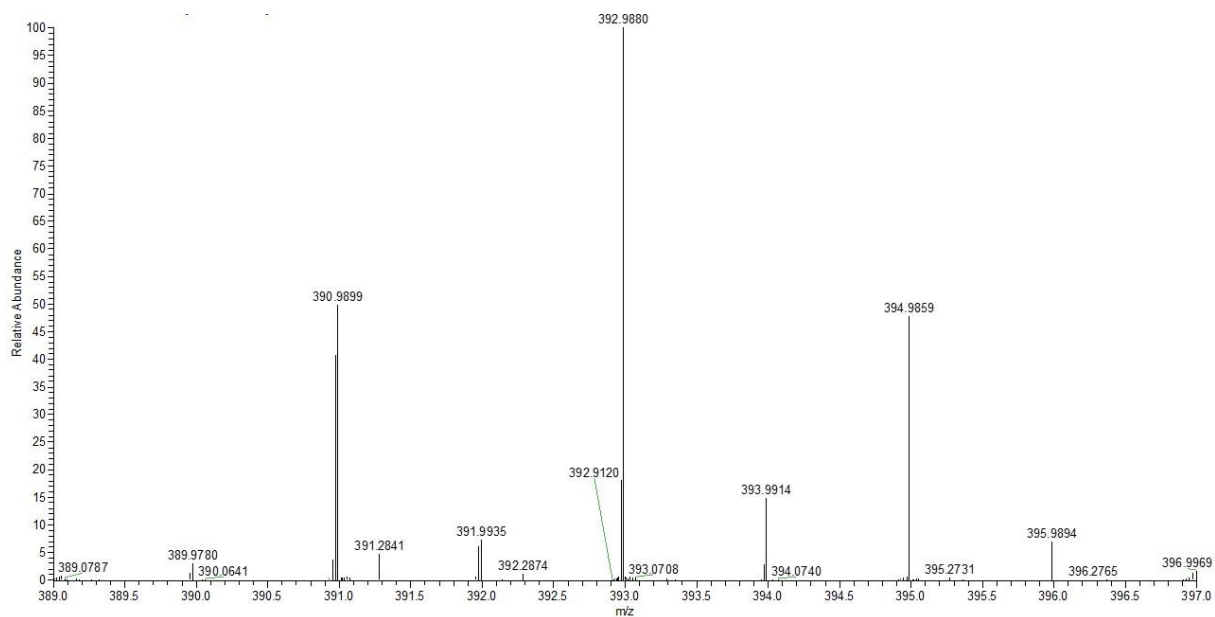


Figure S41. HR-APCIMS of compound **12**.

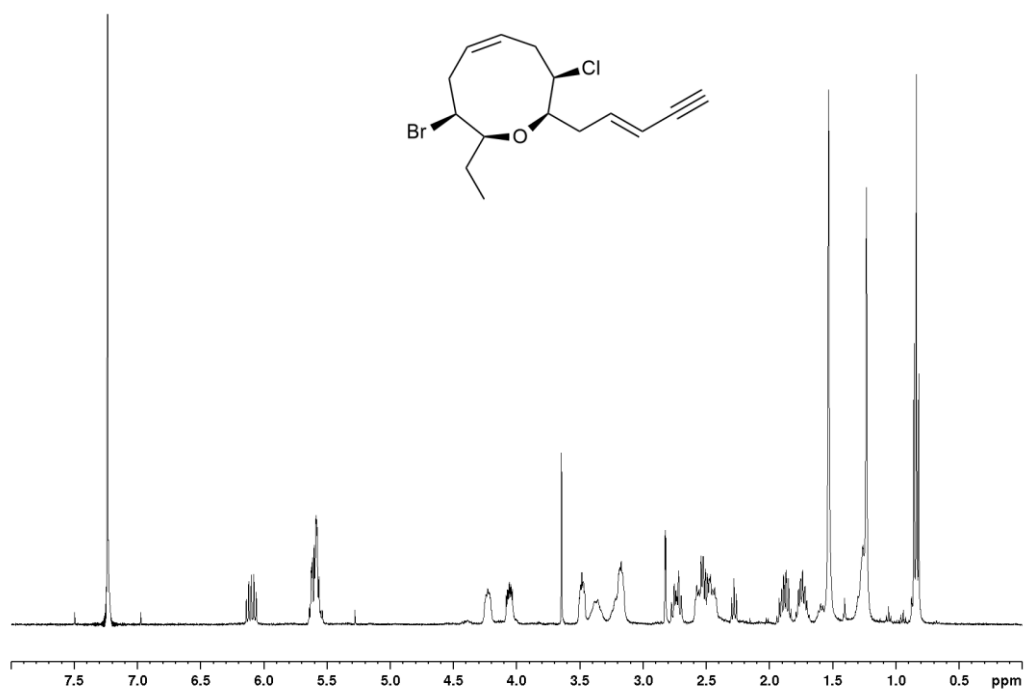


Figure S42. ¹H NMR spectrum (CDCl₃, 400 MHz) of compound **13**.

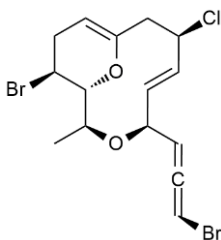


Figure S43. ^1H NMR spectrum (CDCl_3 , 400 MHz) of compound **14**.

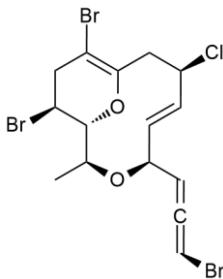


Figure S44. ^1H NMR spectrum (CDCl_3 , 400 MHz) of compound **15**.

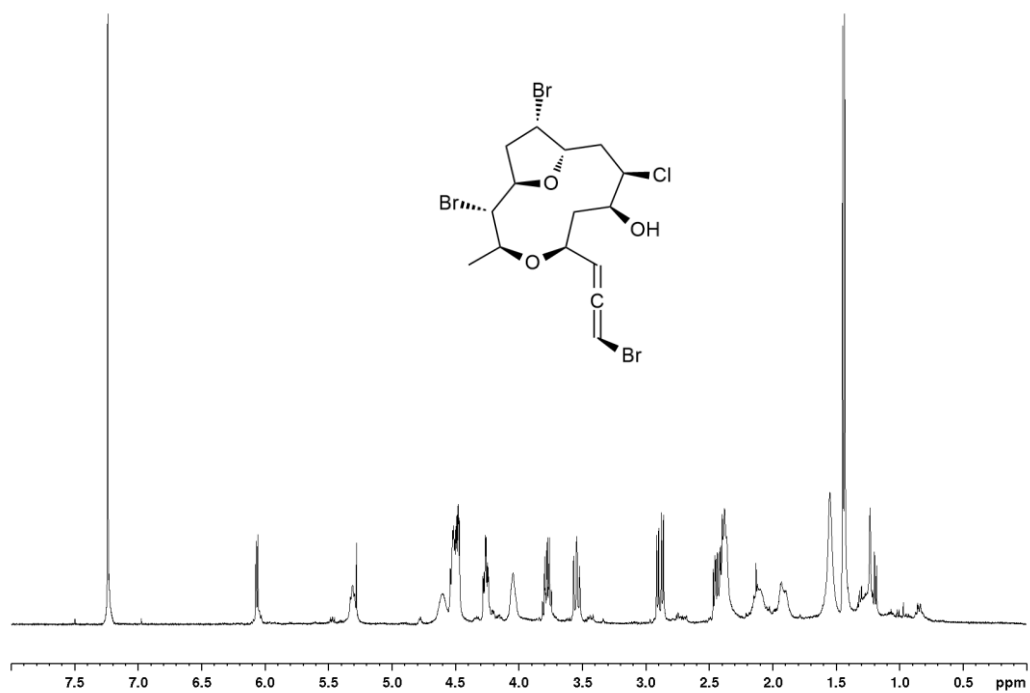


Figure S45. ¹H NMR spectrum (CDCl₃, 400 MHz) of compound 16.

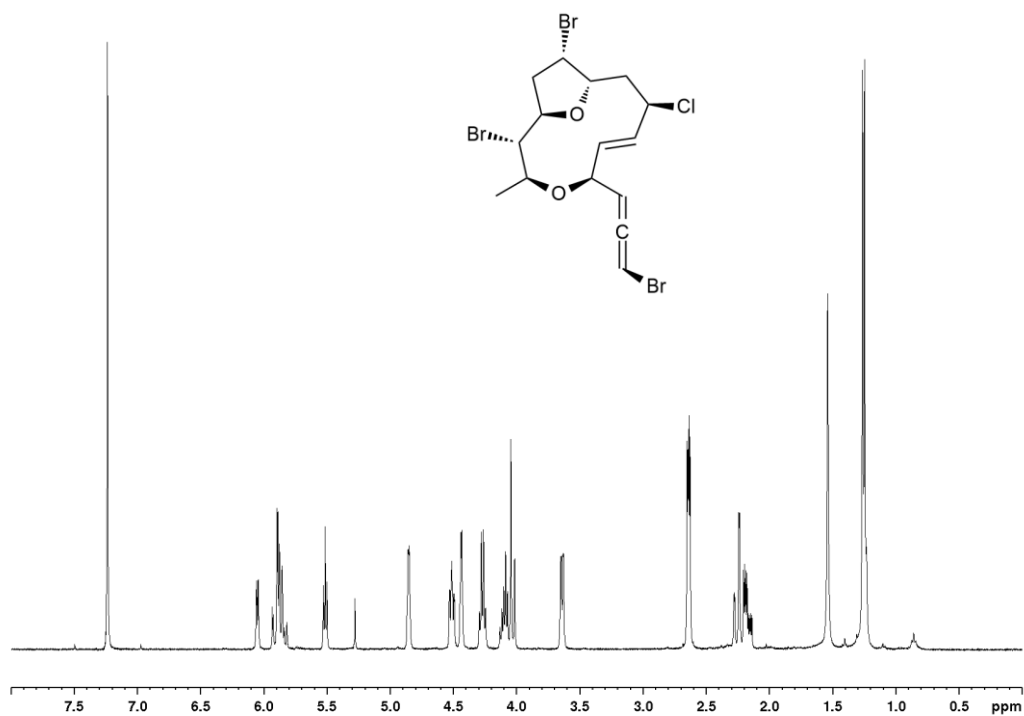


Figure S46. ¹H NMR spectrum (CDCl₃, 400 MHz) of compound 17.

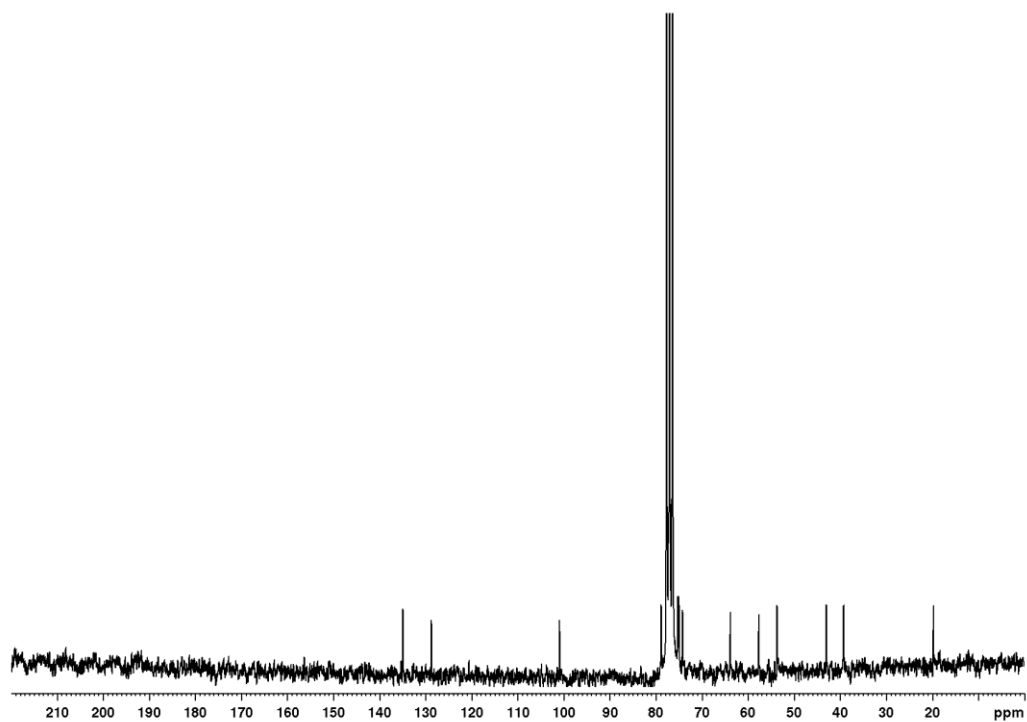


Figure S47. ^{13}C NMR spectrum (CDCl_3 , 50.3 MHz) of compound 17.

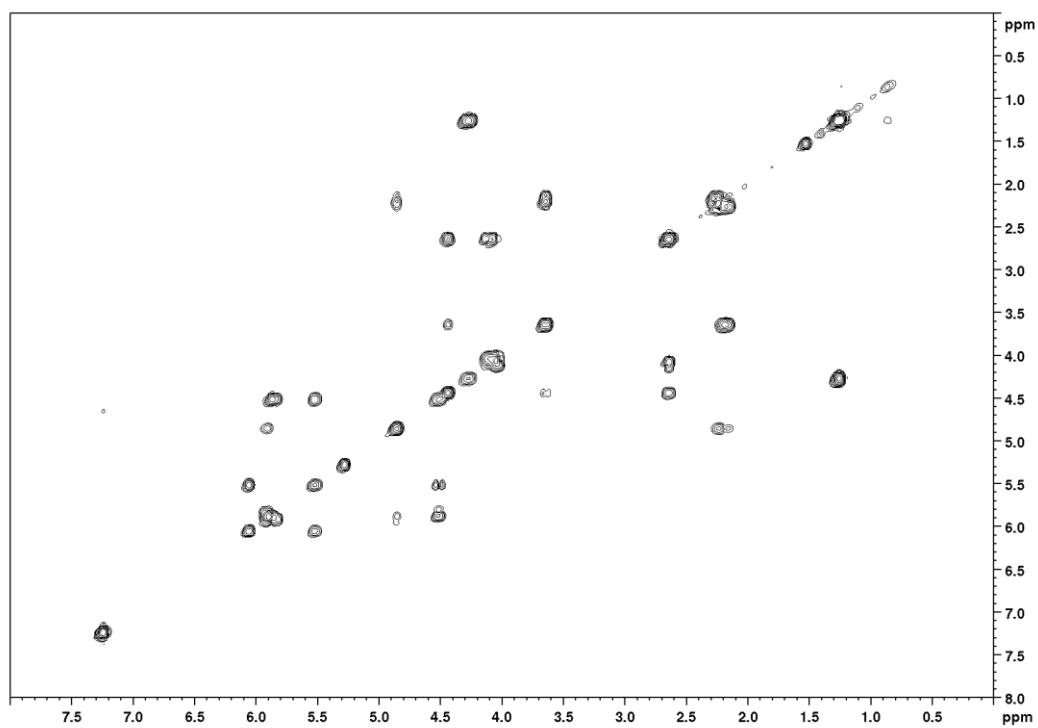


Figure S48. COSY spectrum (CDCl_3 , 400 MHz) of compound 17.

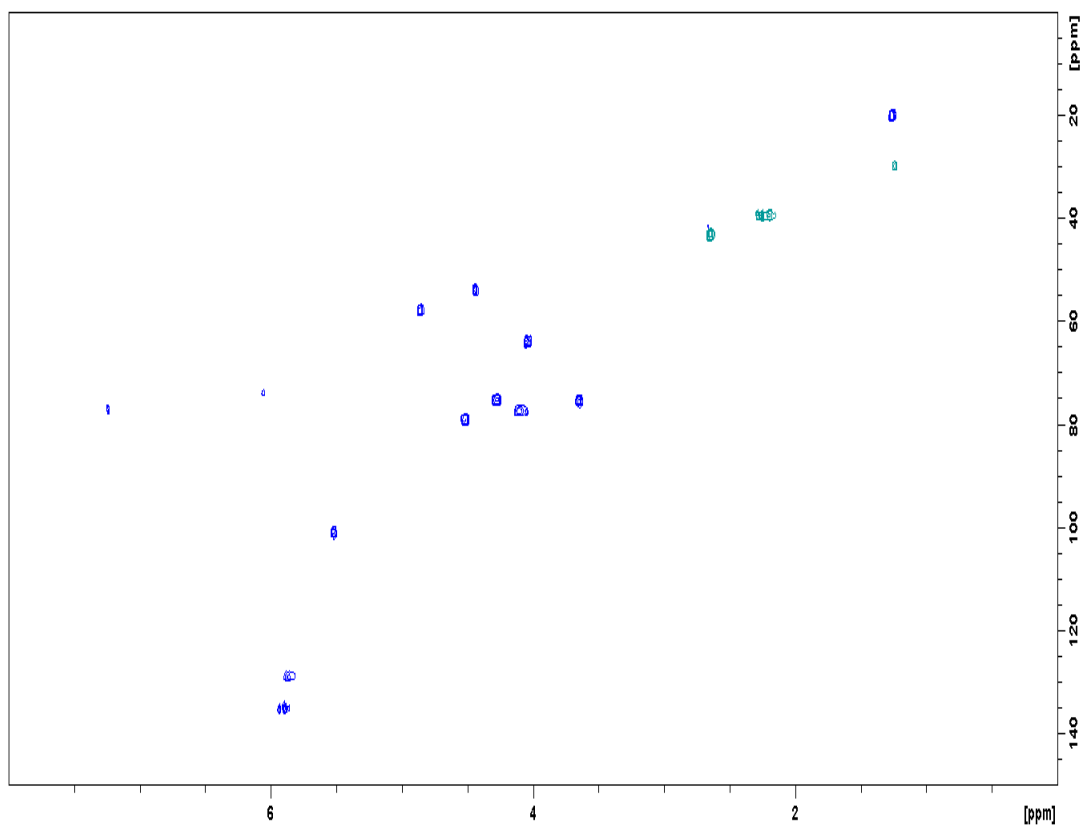


Figure S49. HSQC spectrum (CDCl_3 , 400 MHz) of compound 17.

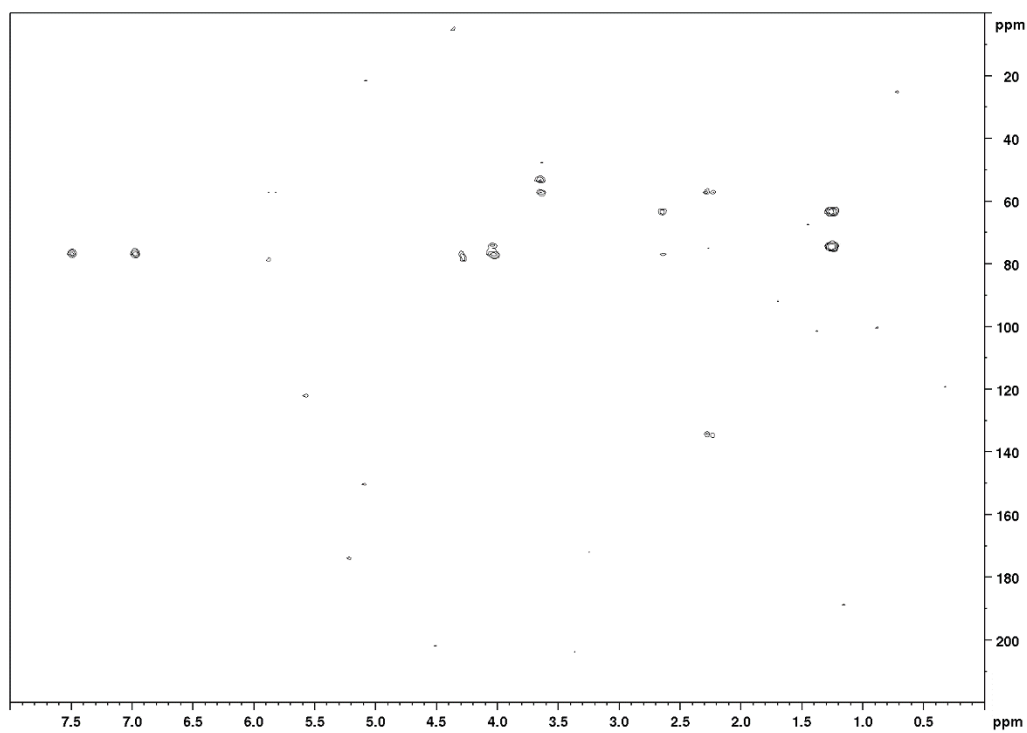


Figure S50. HMBC spectrum (CDCl_3 , 400 MHz) of compound 17.

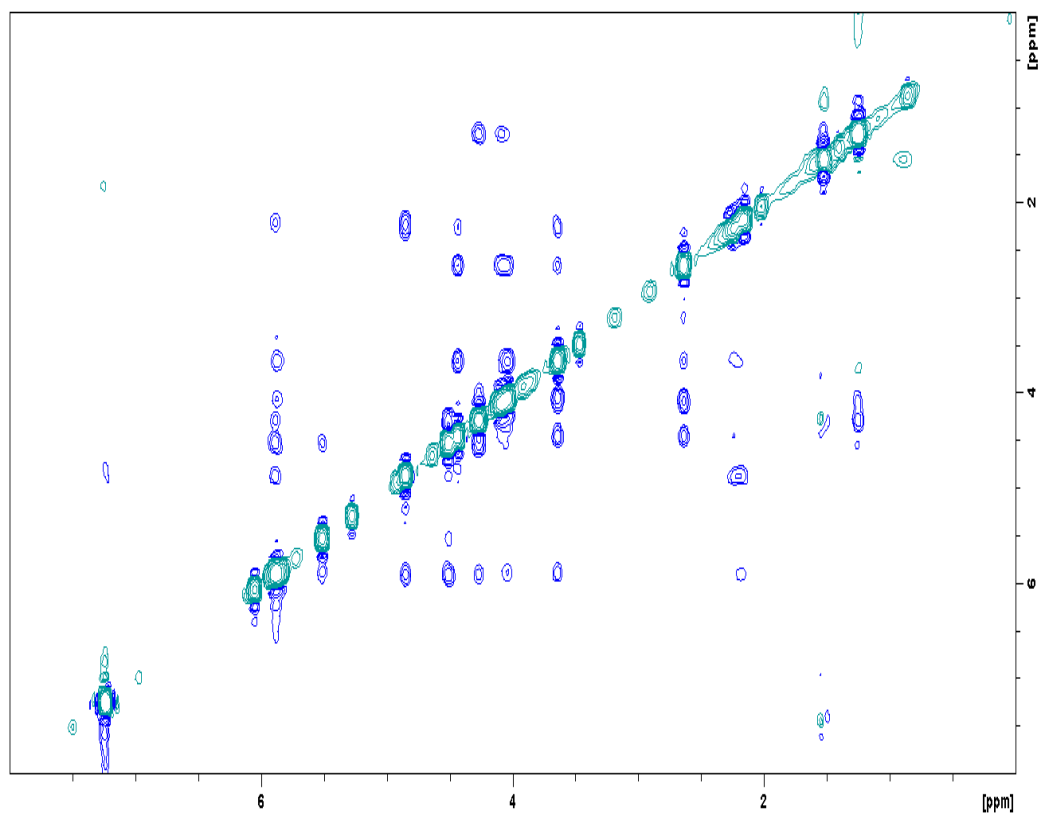


Figure S51. NOESY spectrum (CDCl_3 , 400 MHz) of compound **17**.

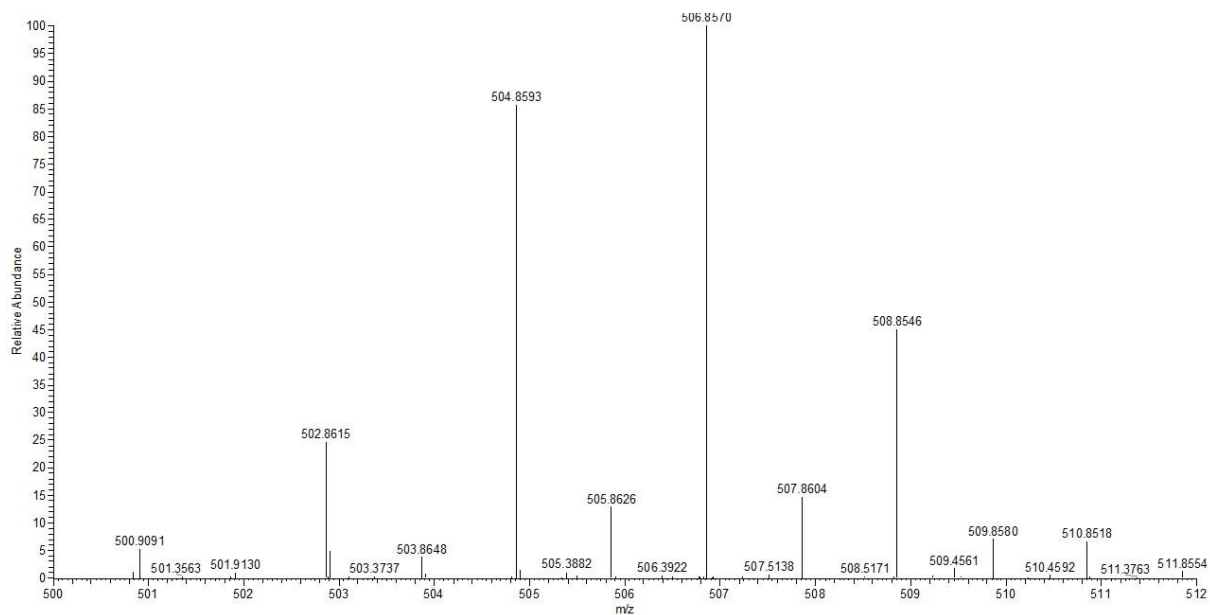


Figure S52. HR-APCIMS of compound **17**.

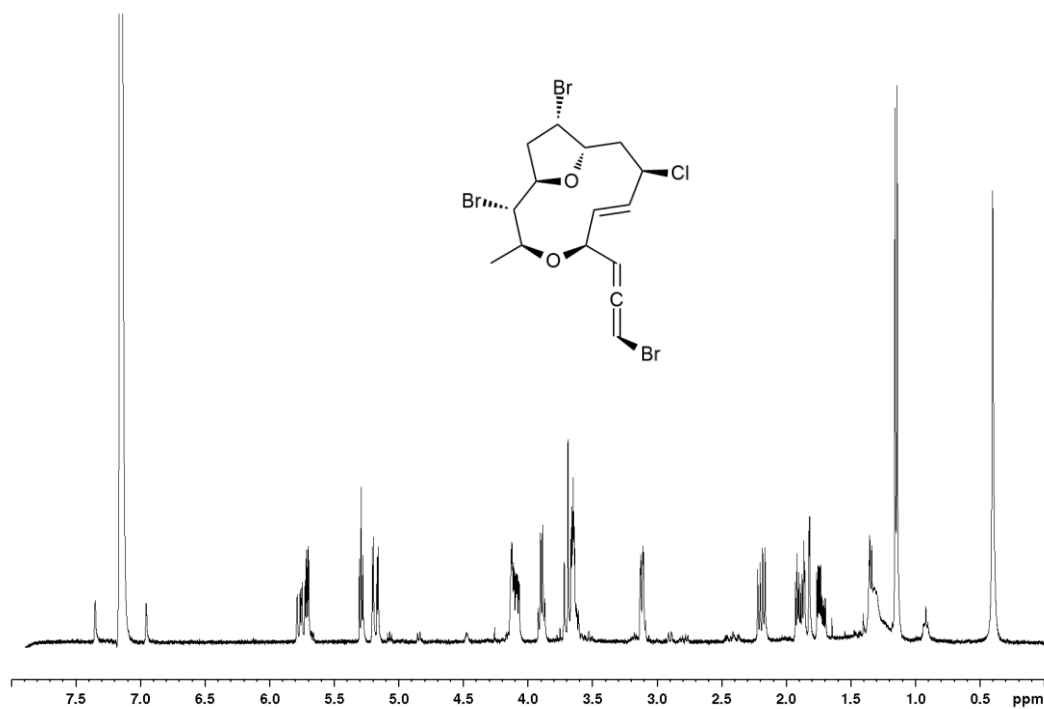


Figure S53. ¹H NMR spectrum (CDCl₃, 400 MHz) of compound 17.

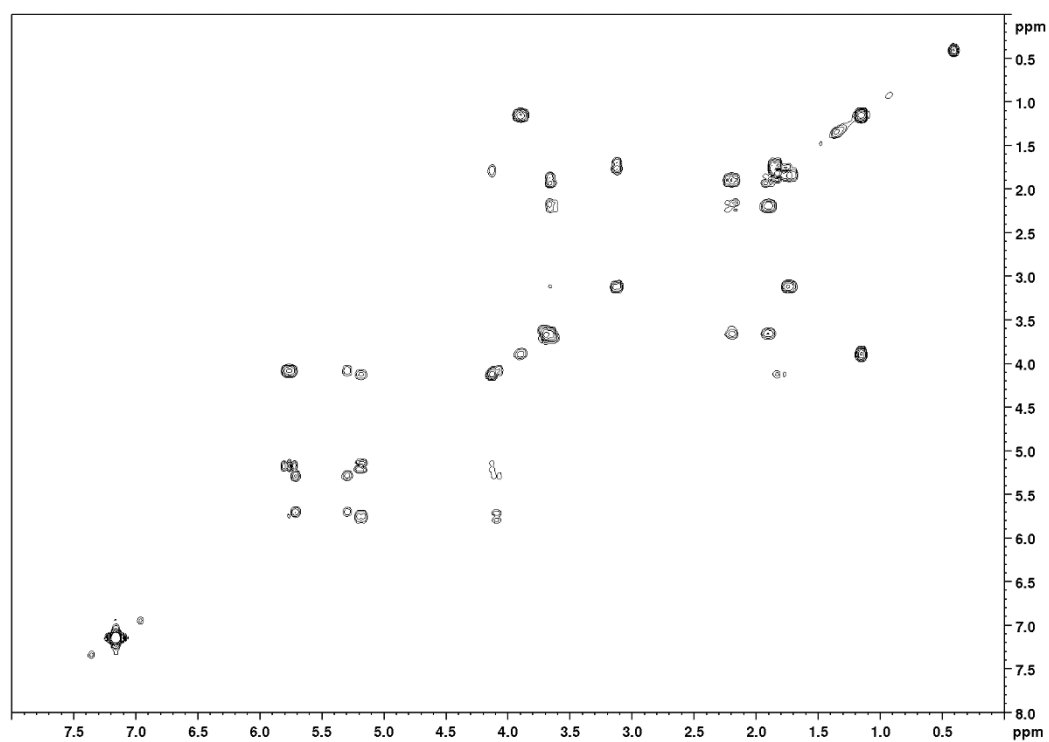


Figure S54. COSY spectrum (CDCl₃, 400 MHz) of compound 17.

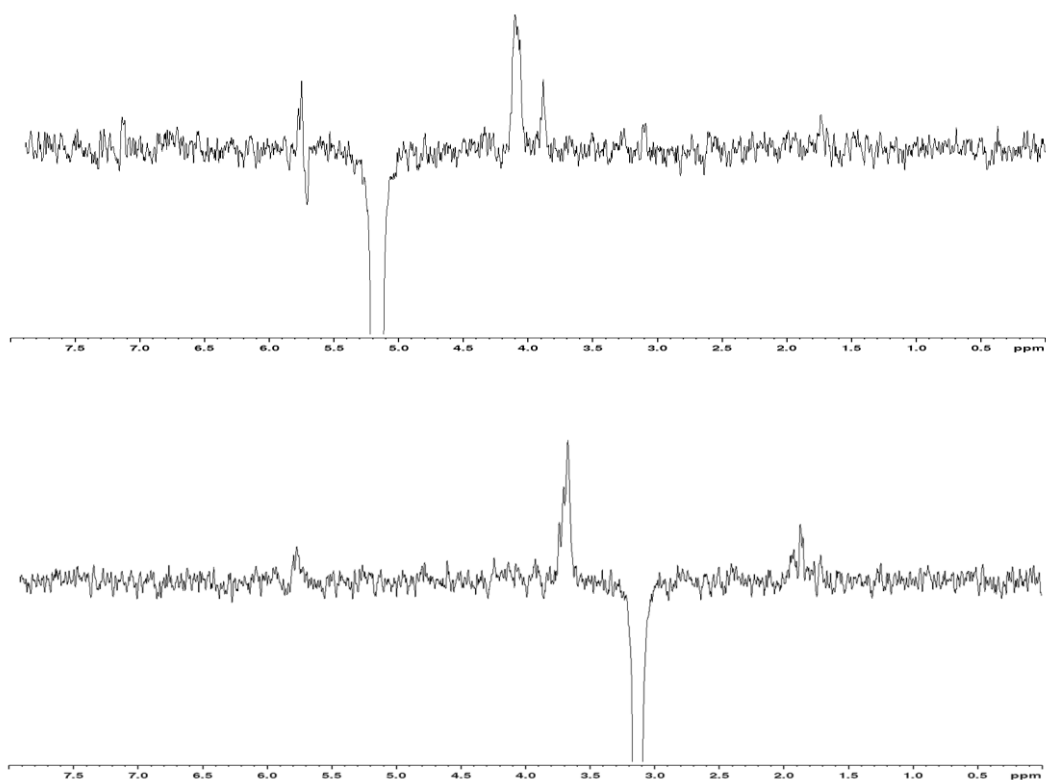


Figure S55. 1D-NOE spectra (C_6D_6 , 400 MHz) of compound **17**.

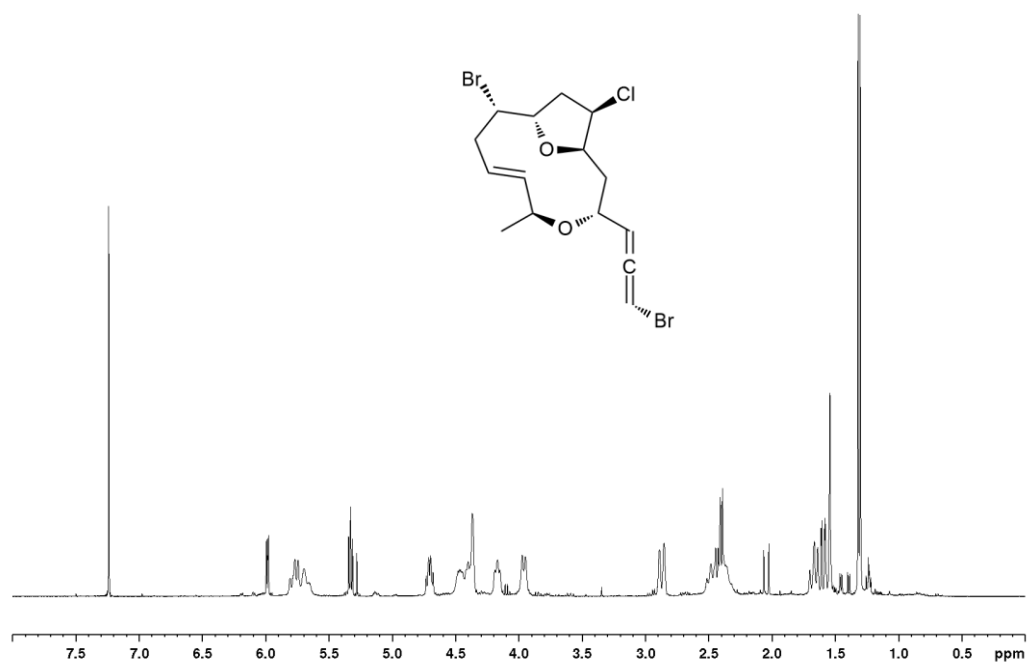


Figure S56. ^1H NMR spectrum (CDCl_3 , 400 MHz) of compound **18**.

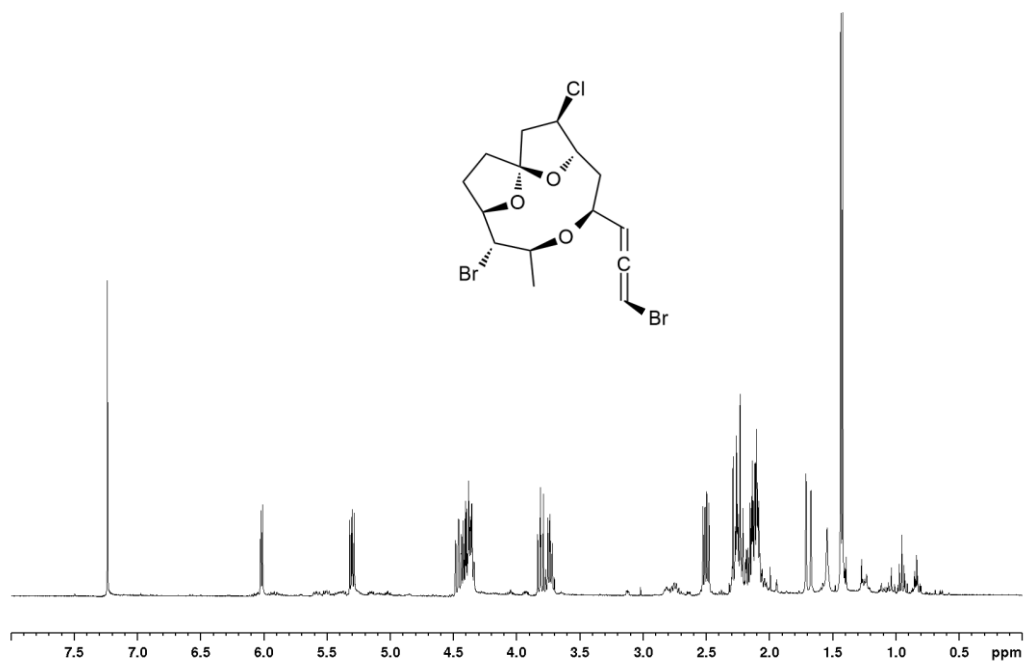


Figure S57. ^1H NMR spectrum (CDCl_3 , 400 MHz) of compound **19**.

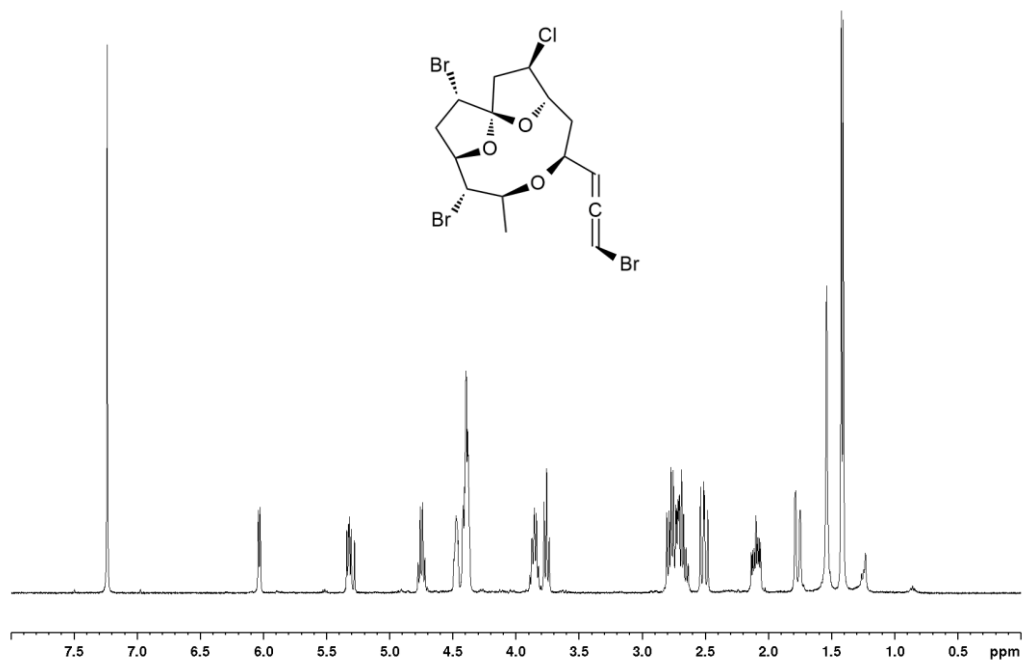


Figure S58. ^1H NMR spectrum (CDCl_3 , 400 MHz) of compound **20**.

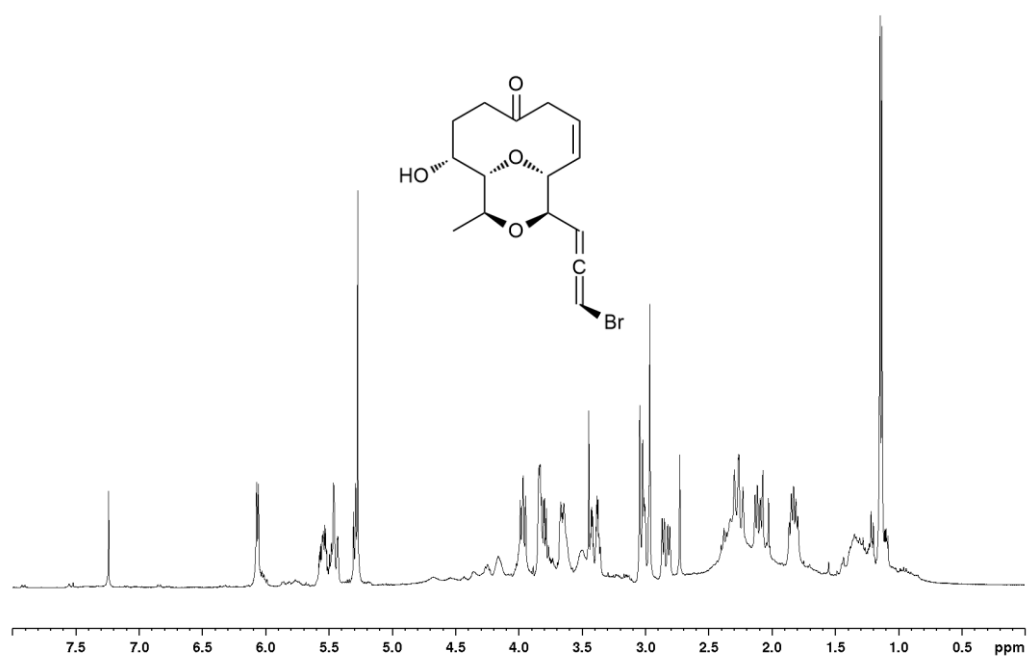


Figure S59. ¹H NMR spectrum (CDCl₃, 400 MHz) of compound 21.

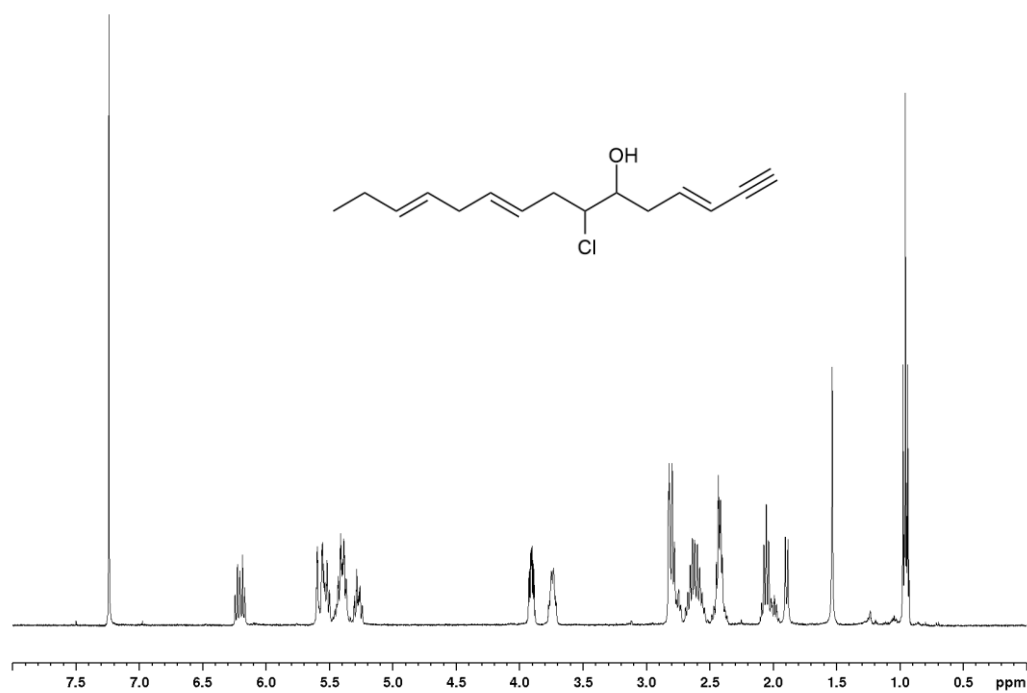


Figure S60. ¹H NMR spectrum (CDCl₃, 400 MHz) of compound 22.

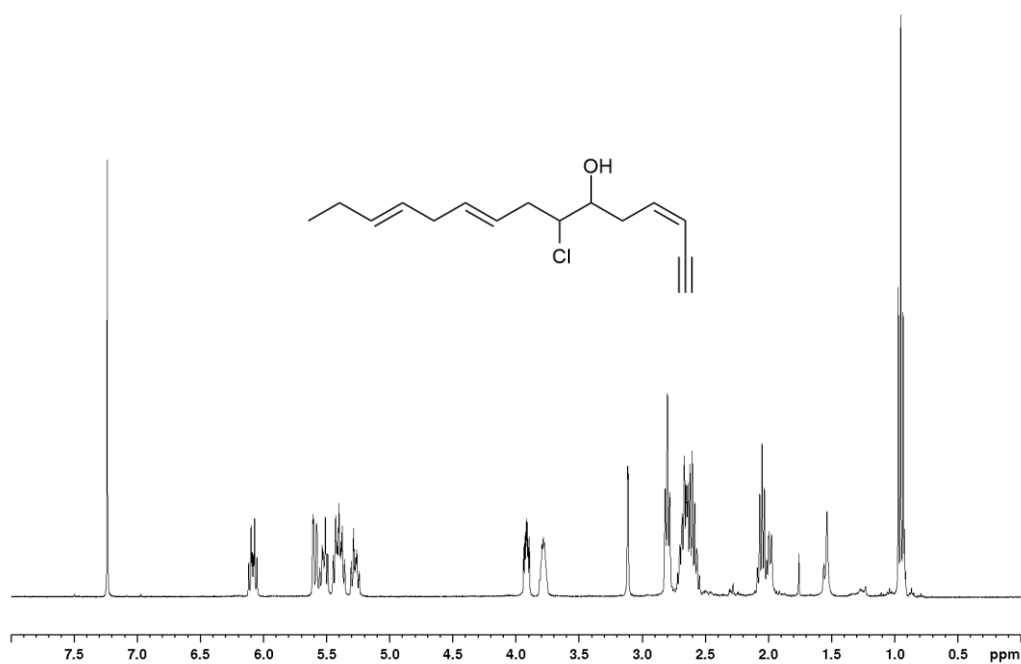


Figure S61. ¹H NMR spectrum (CDCl₃, 400 MHz) of compound **23**.

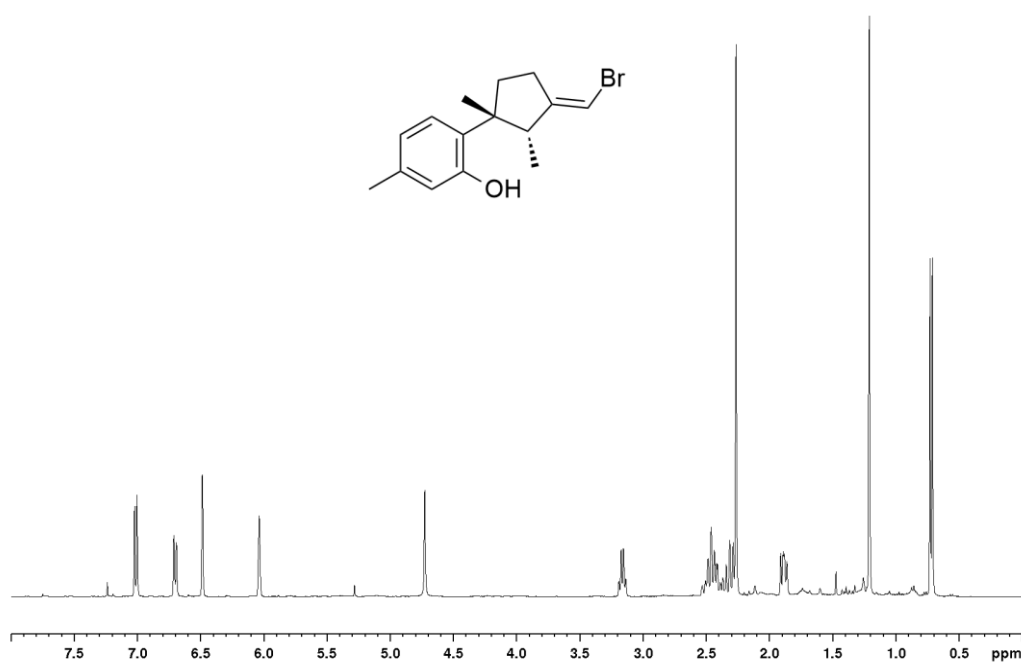


Figure S62. ¹H NMR spectrum (CDCl₃, 400 MHz) of compound **24**.

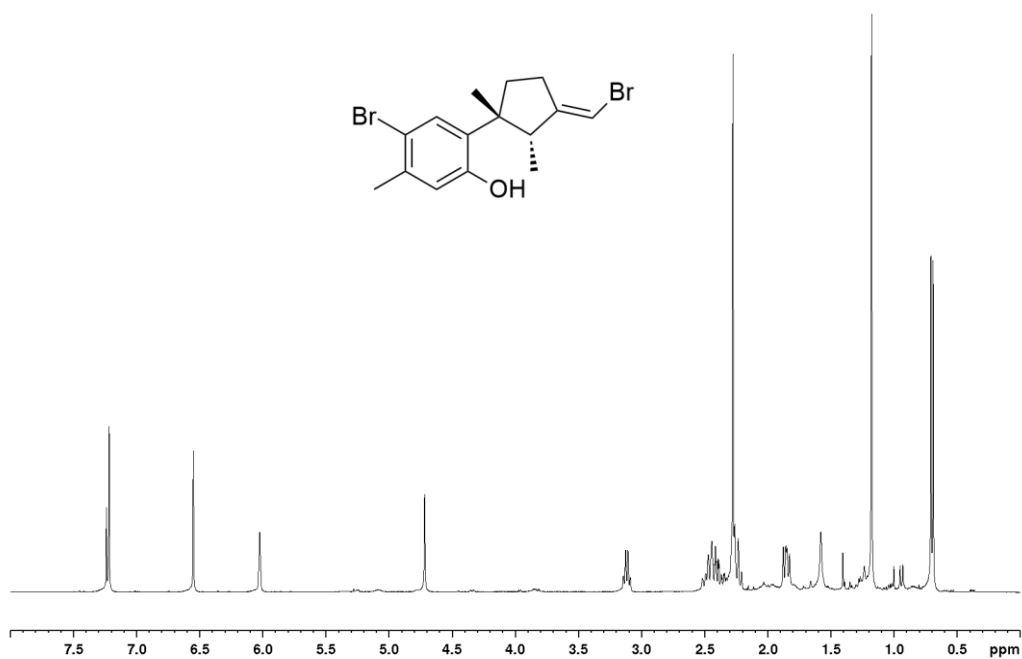


Figure S63. ¹H NMR spectrum (CDCl₃, 400 MHz) of compound 25.

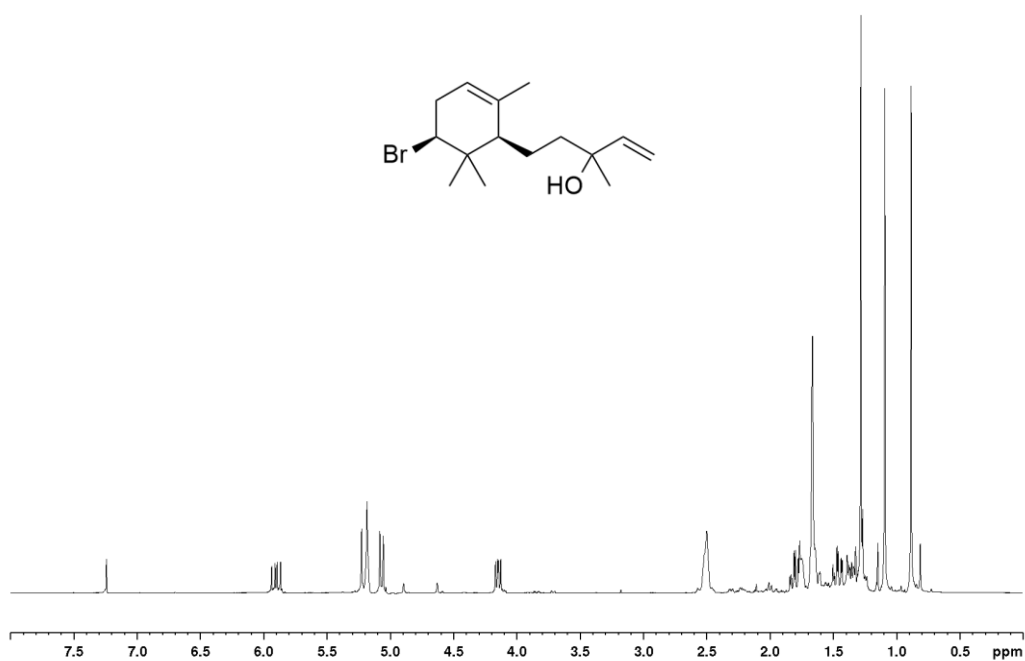


Figure S64. ¹H NMR spectrum (CDCl₃, 400 MHz) of compound 26.

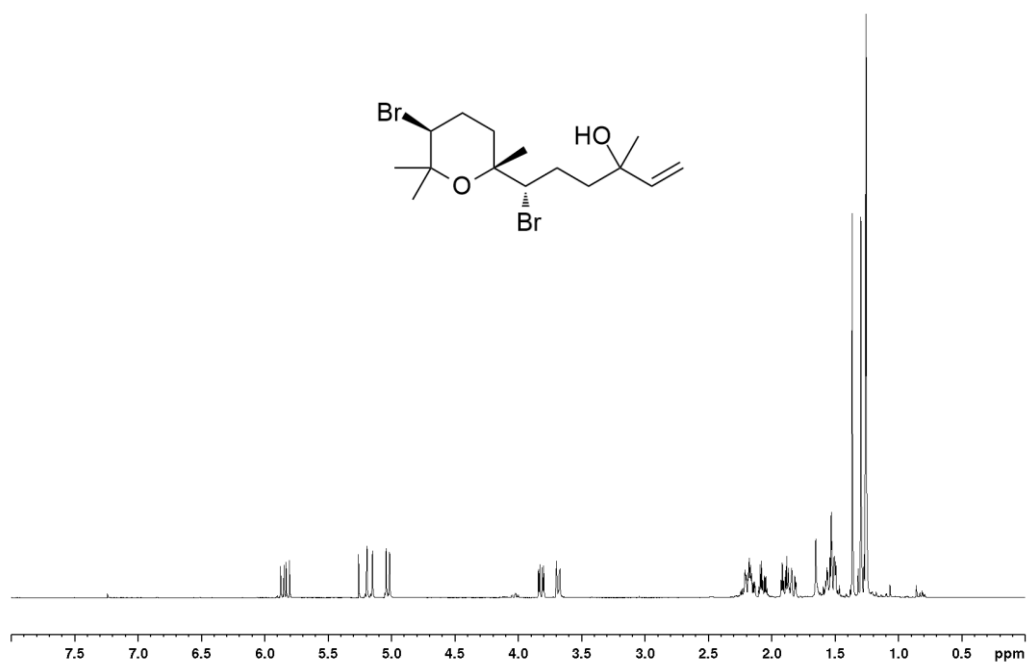


Figure S65. ^1H NMR spectrum (CDCl_3 , 400 MHz) of compound **27**.

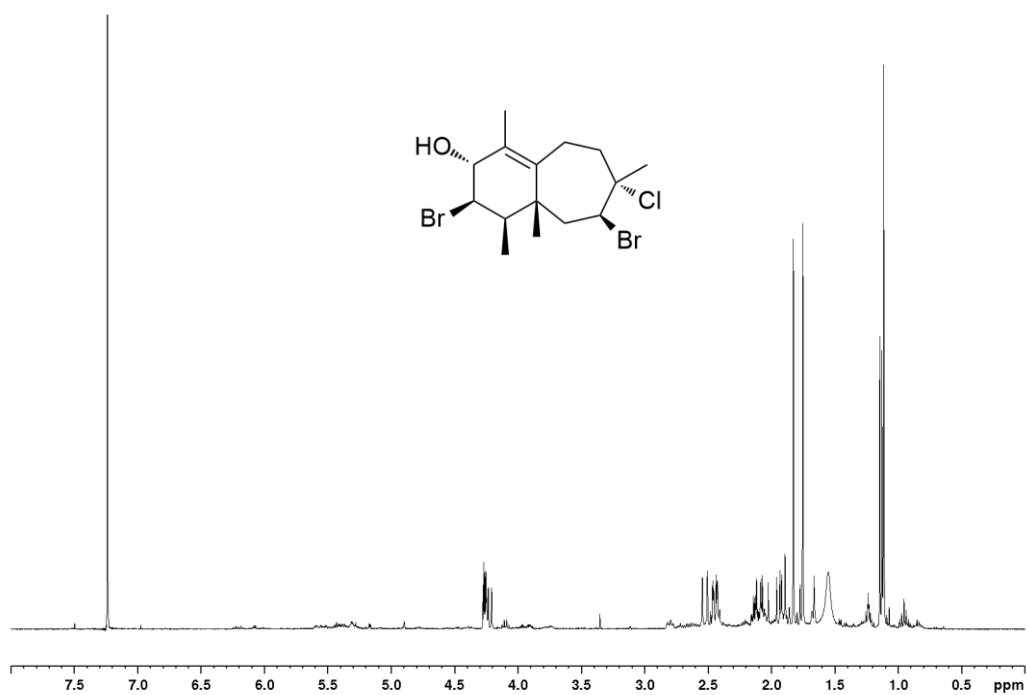


Figure S66. ^1H NMR spectrum (CDCl_3 , 400 MHz) of compound **28**.

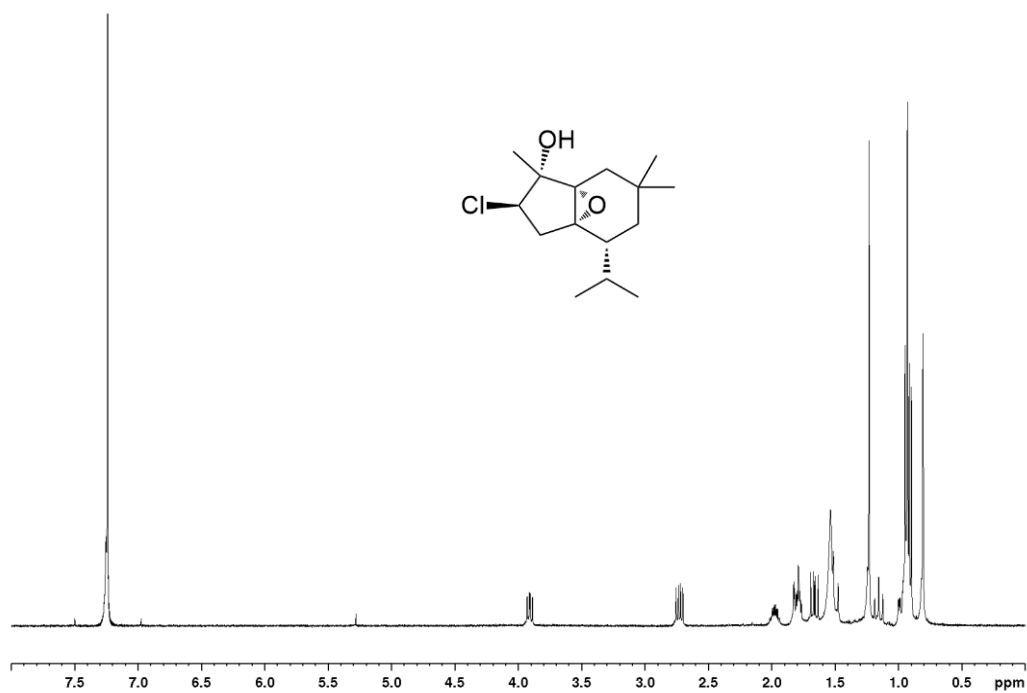


Figure S67. ¹H NMR spectrum (CDCl₃, 400 MHz) of compound 29.

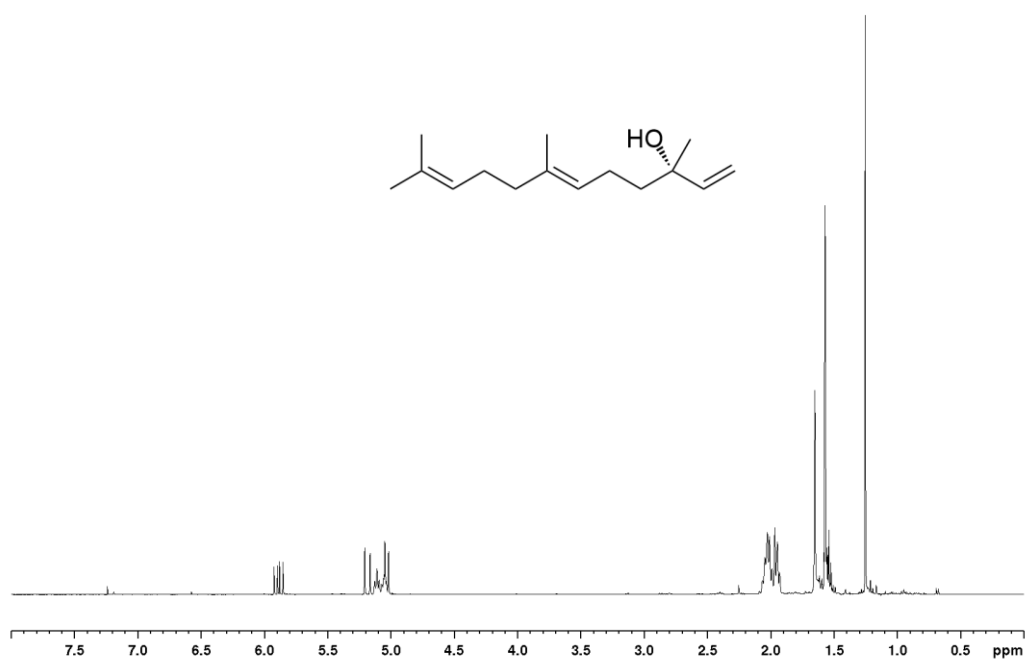


Figure S68. ¹H NMR spectrum (CDCl₃, 400 MHz) of compound 30.

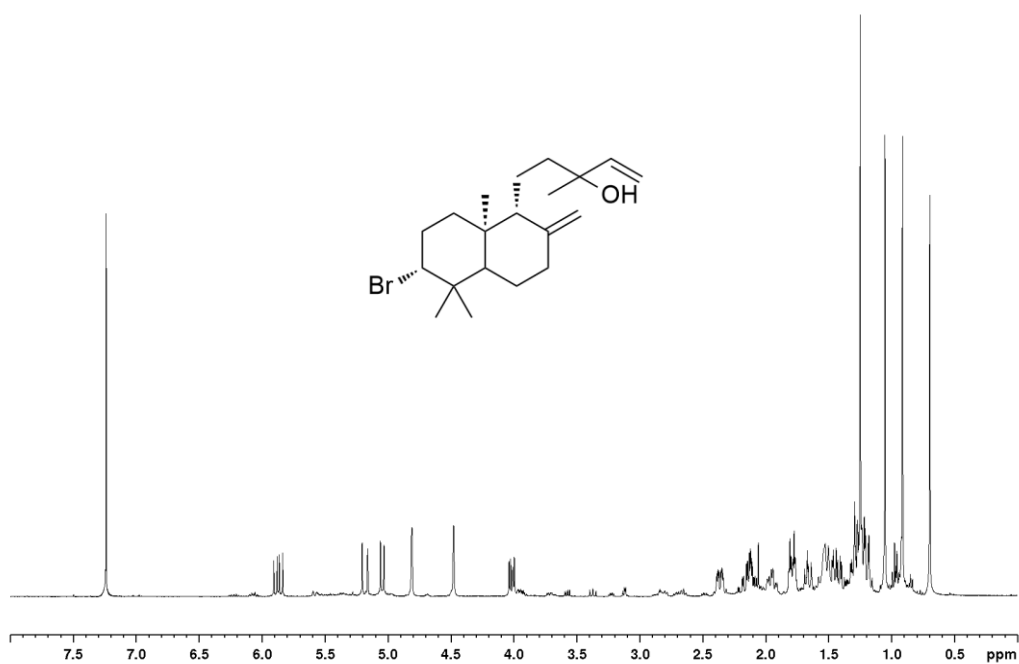


Figure S69. ¹H NMR spectrum (CDCl₃, 400 MHz) of compound 31.

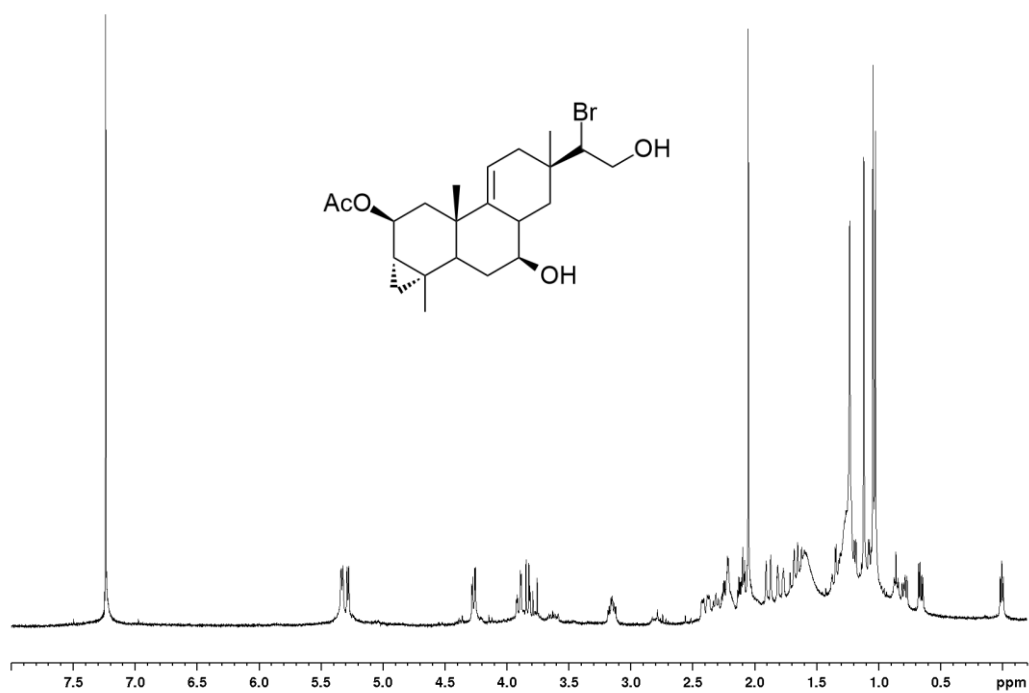


Figure S70. ¹H NMR spectrum (CDCl₃, 400 MHz) of compound 32.