

# Supplementary Material: New Abietane and Kaurane Type Diterpenoids from the Stems of *Tripterygium regelii*

Dongsheng Fan, Shuangyan Zhou, Zhiyuan Zheng, Guo-Yuan Zhu, Xiaojun Yao, Ming-Rong Yang, Zhi-Hong Jiang and Li-Ping Bai

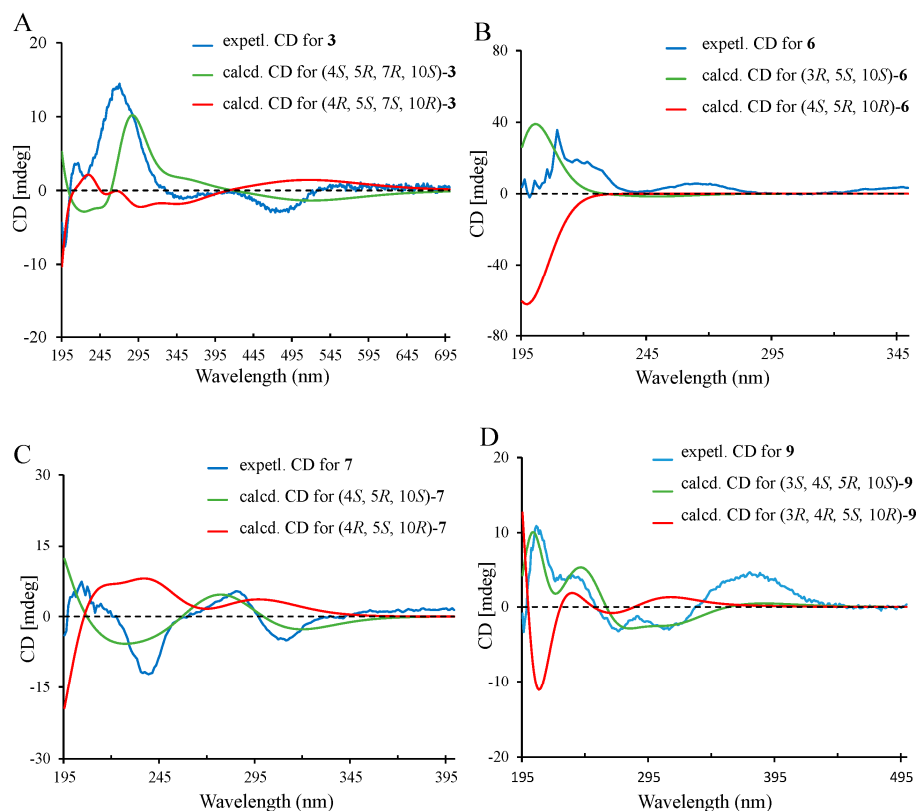


Figure S1. Experimental and calculated CD spectra of compounds 3 (A), 6 (B), 7 (C) and 9 (D).

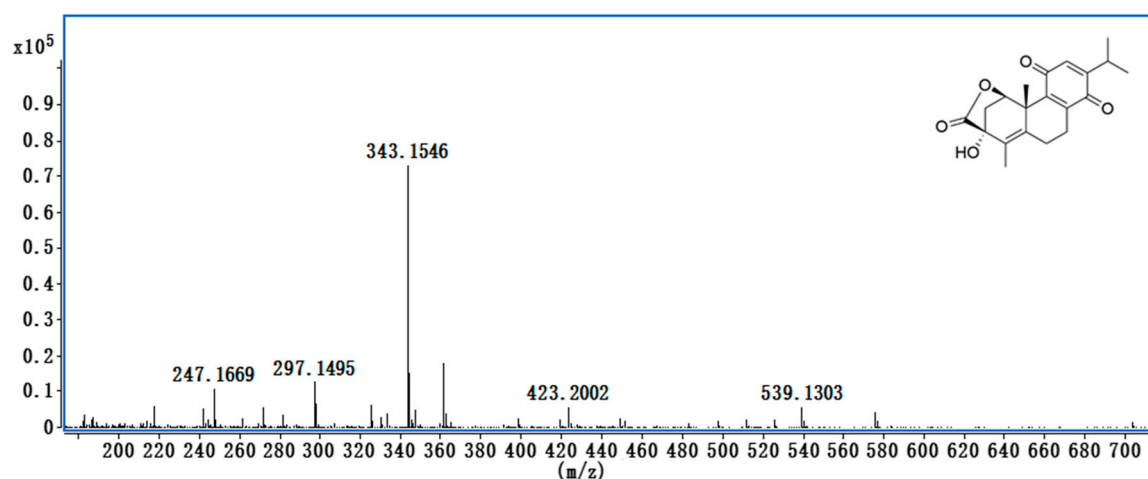


Figure S2. HRESIMS spectrum of compound 1.

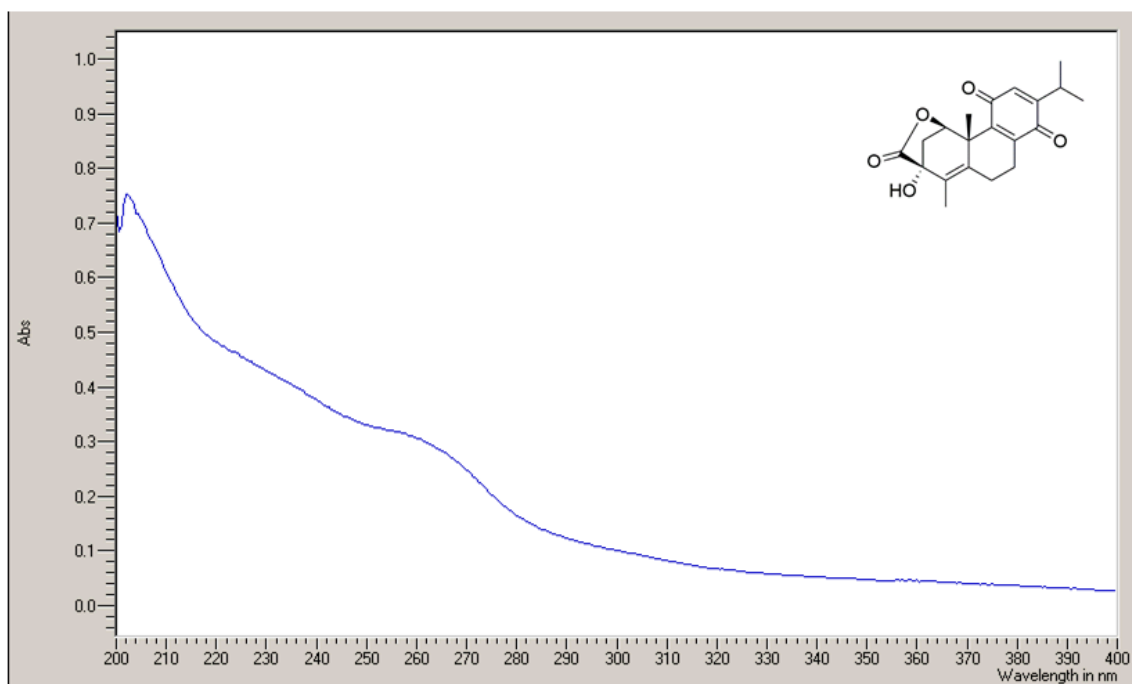


Figure S3. UV spectrum of compound 1 in MeOH.

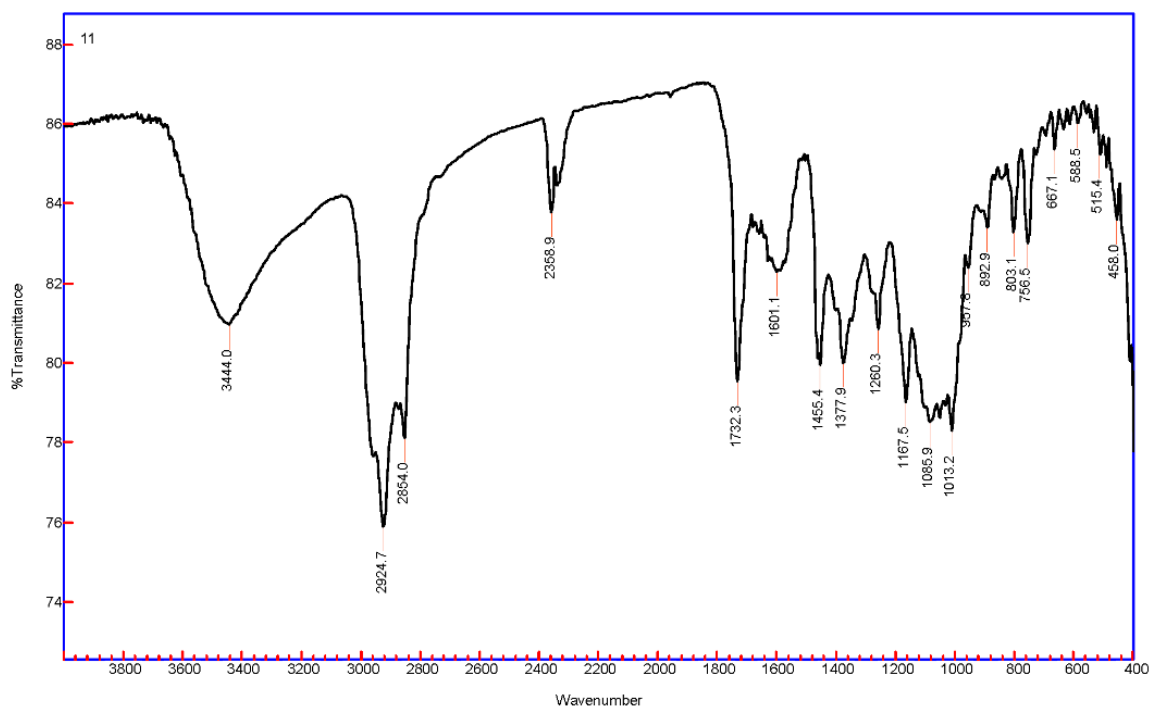


Figure S4. IR spectrum of compound 1.

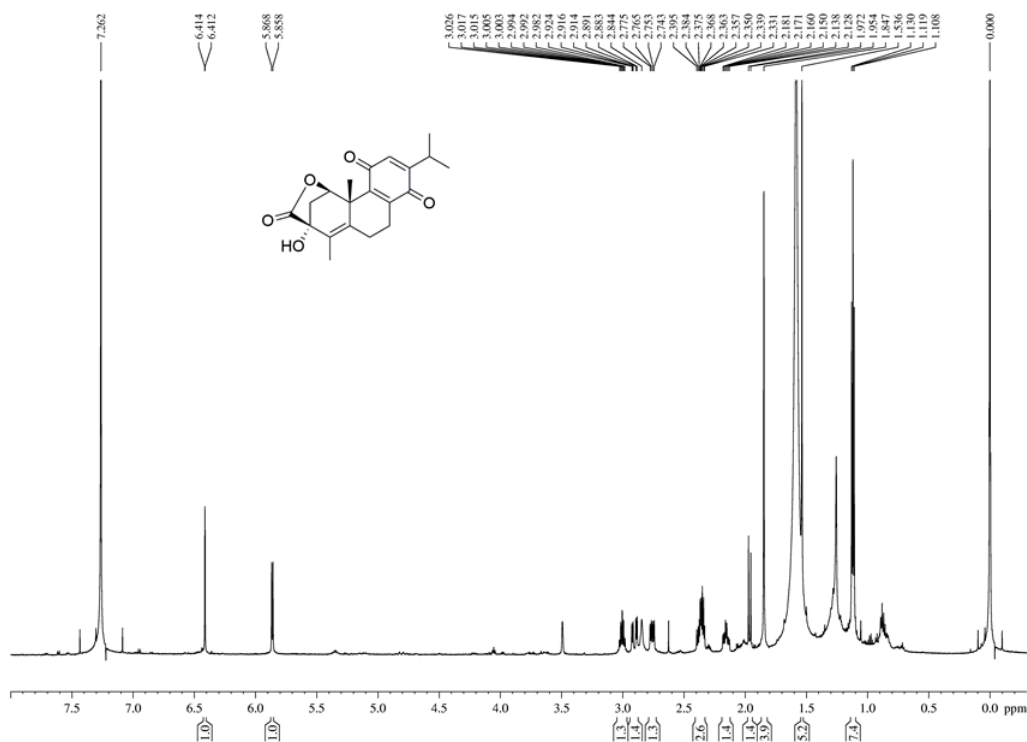


Figure S5. <sup>1</sup>H NMR spectrum of compound 1 in CDCl<sub>3</sub>.

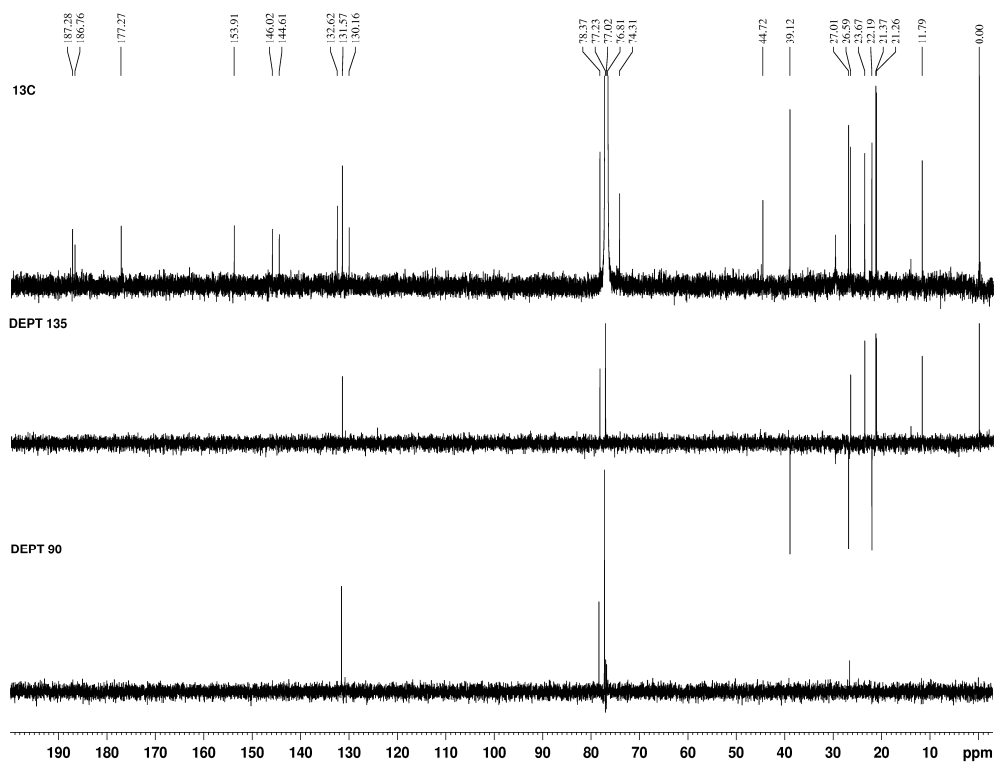


Figure S6. <sup>13</sup>C and DEPT NMR spectra of compound 1 in CDCl<sub>3</sub>.

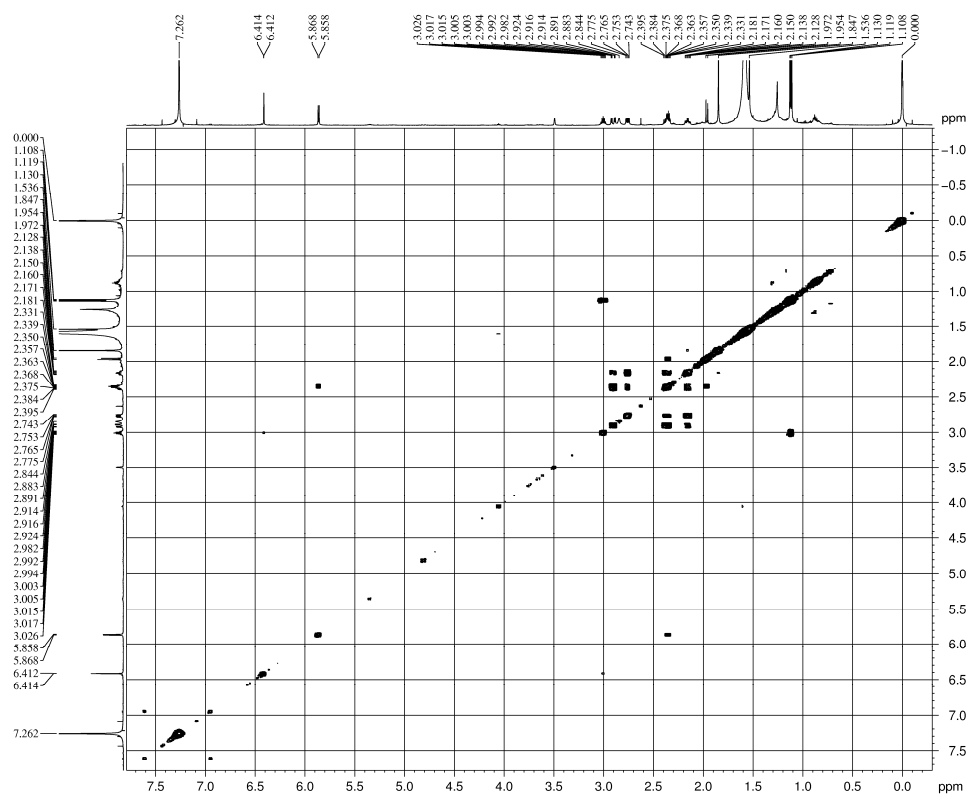


Figure S7.  $^1\text{H}$ - $^1\text{H}$  COSY spectrum of compound 1 in  $\text{CDCl}_3$ .

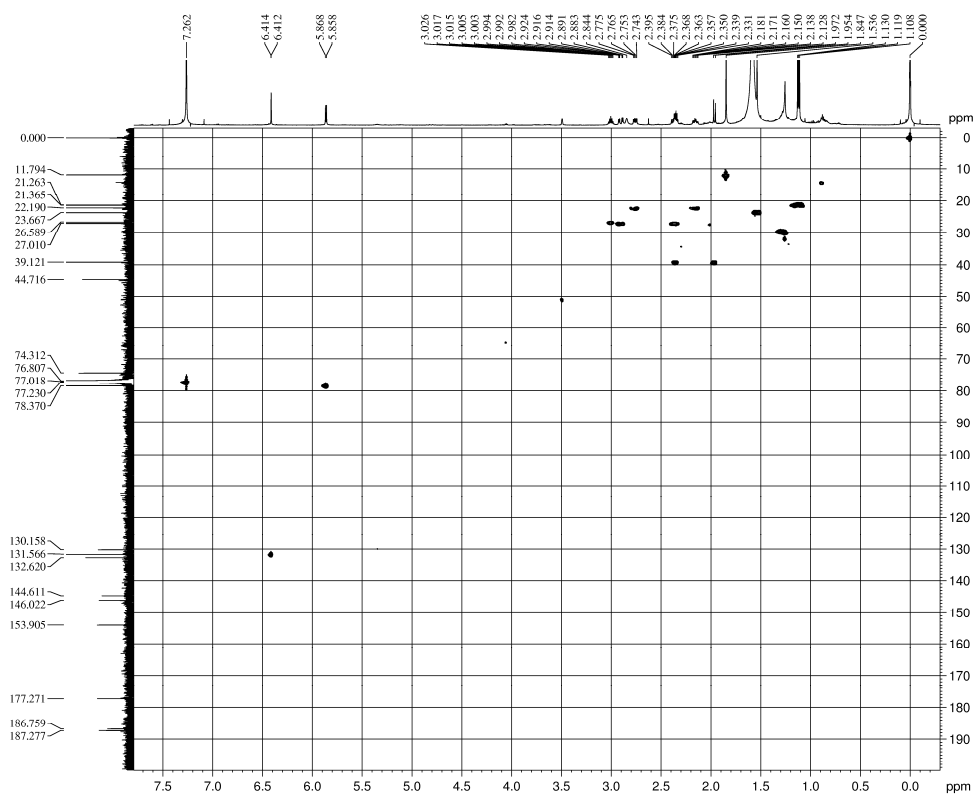


Figure S8. HSQC spectrum of compound 1 in  $\text{CDCl}_3$ .

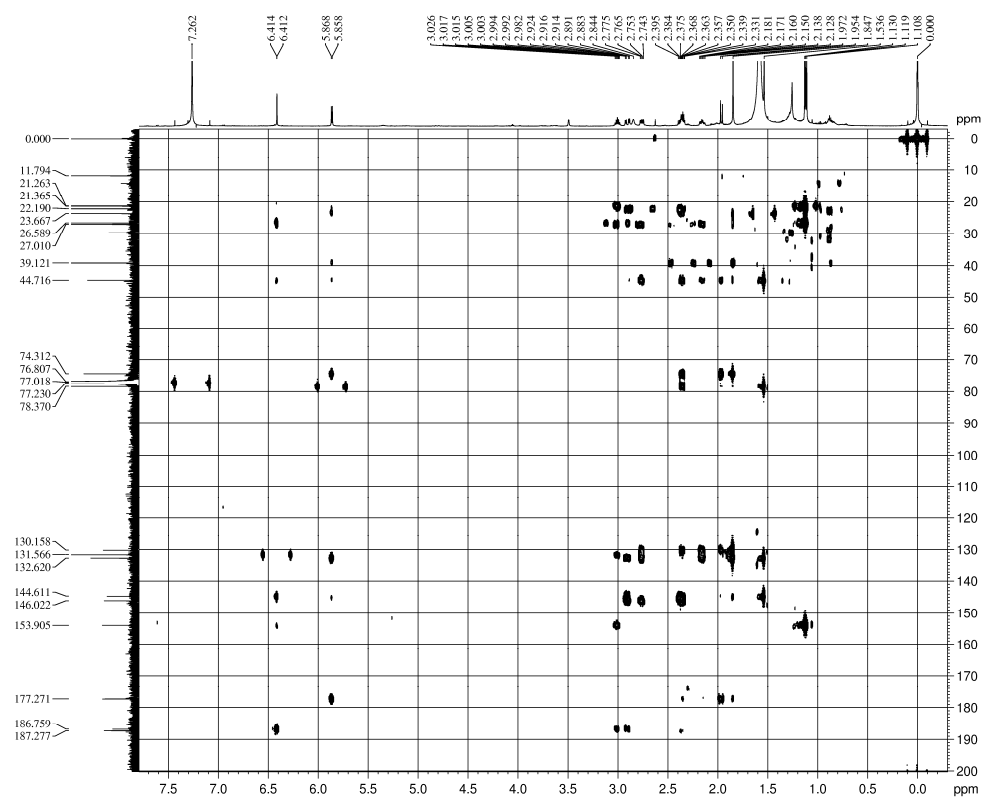


Figure S9. HMBC spectrum of compound 1 in CDCl<sub>3</sub>.

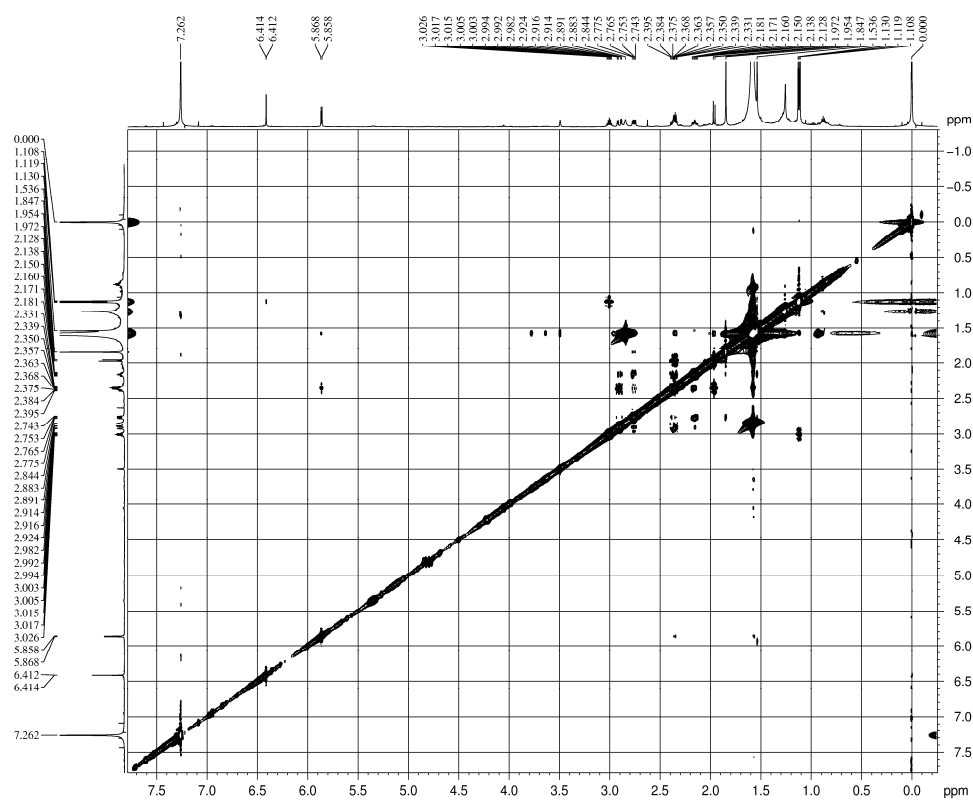


Figure S10. NOESY spectrum of compound 1 in CDCl<sub>3</sub>.

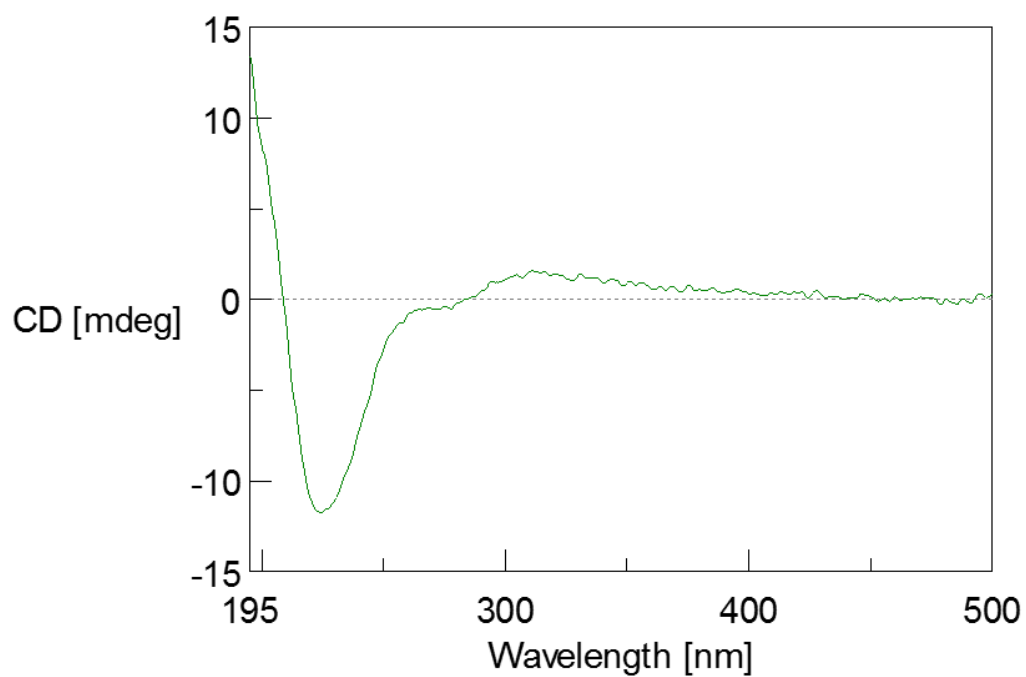


Figure S11. CD spectrum of compound 1 in MeOH.

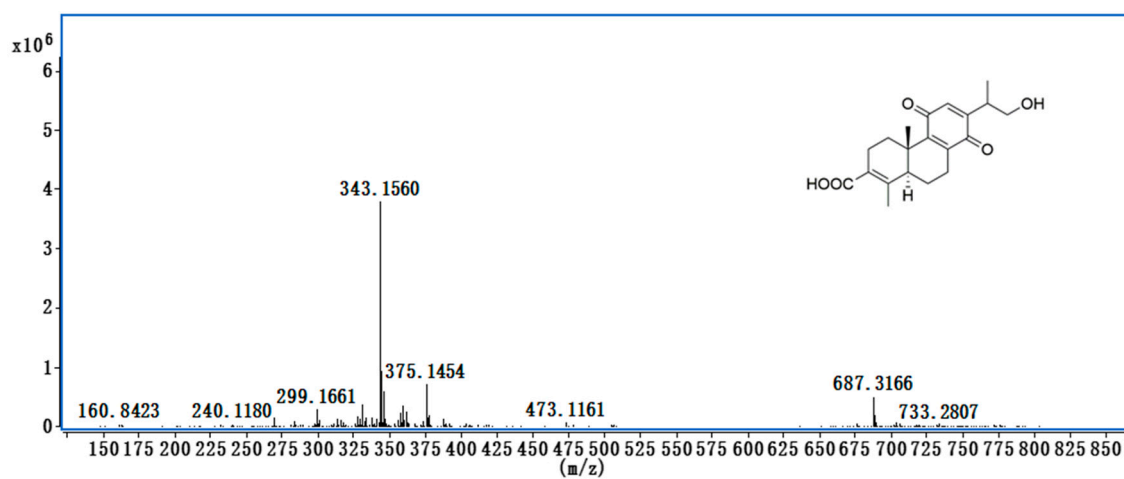


Figure S12. HRESIMS spectrum of compound 2.

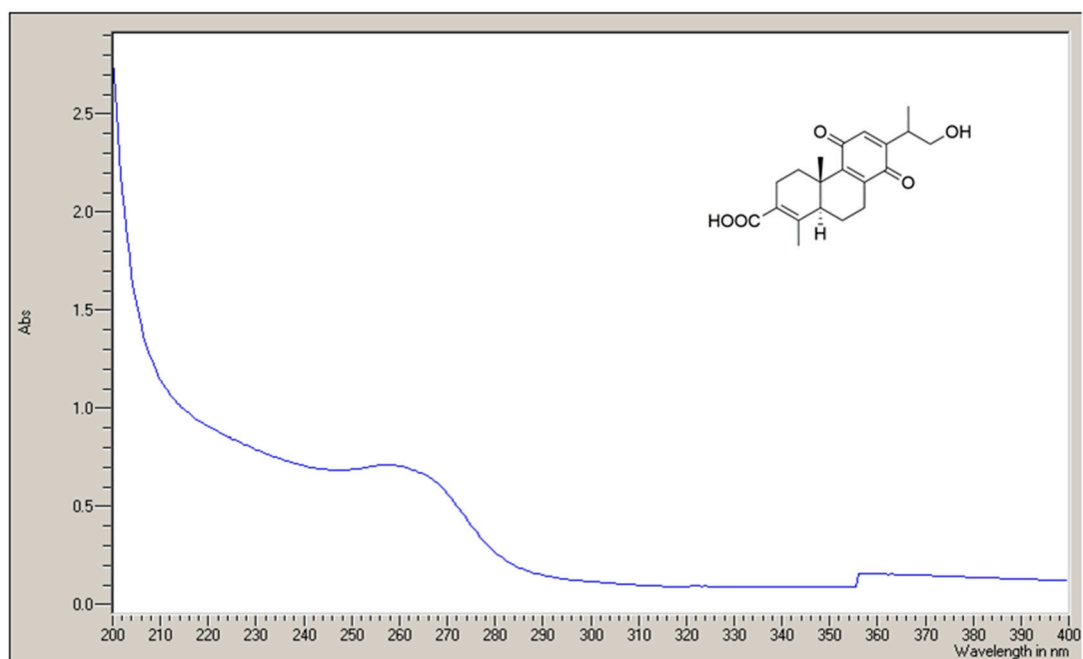


Figure S13. UV spectrum of compound 2 in MeOH.

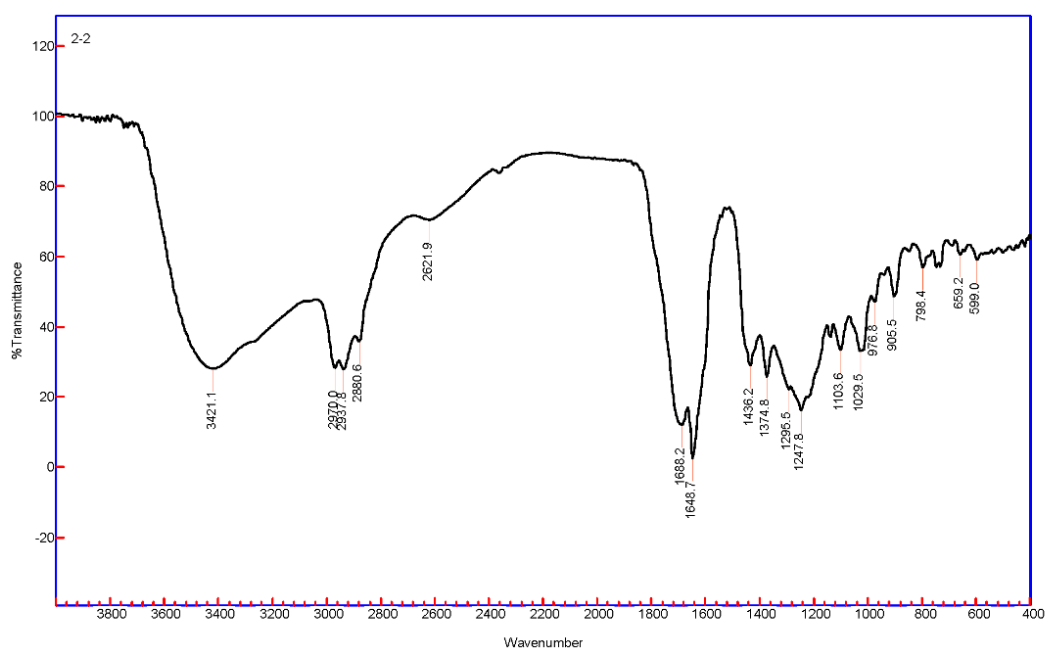


Figure S14. IR spectrum of compound 2.

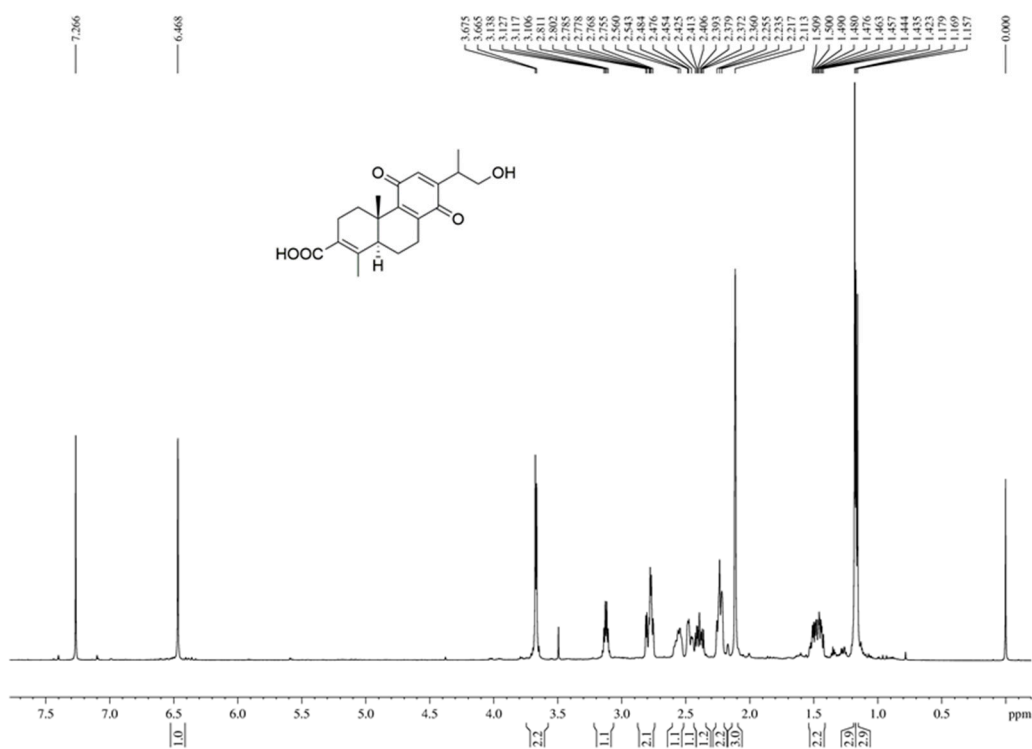


Figure S15. <sup>1</sup>H NMR spectrum of compound 2 in CDCl<sub>3</sub>.

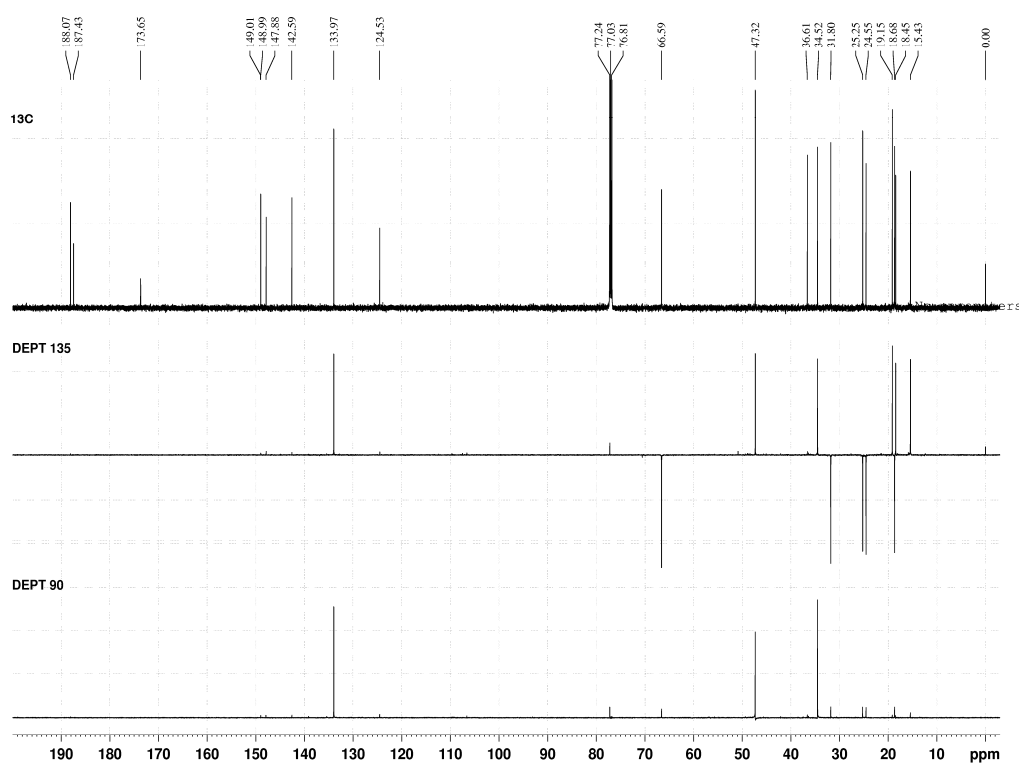


Figure S16. <sup>13</sup>C and DEPT NMR spectra of compound 2 in CDCl<sub>3</sub>.



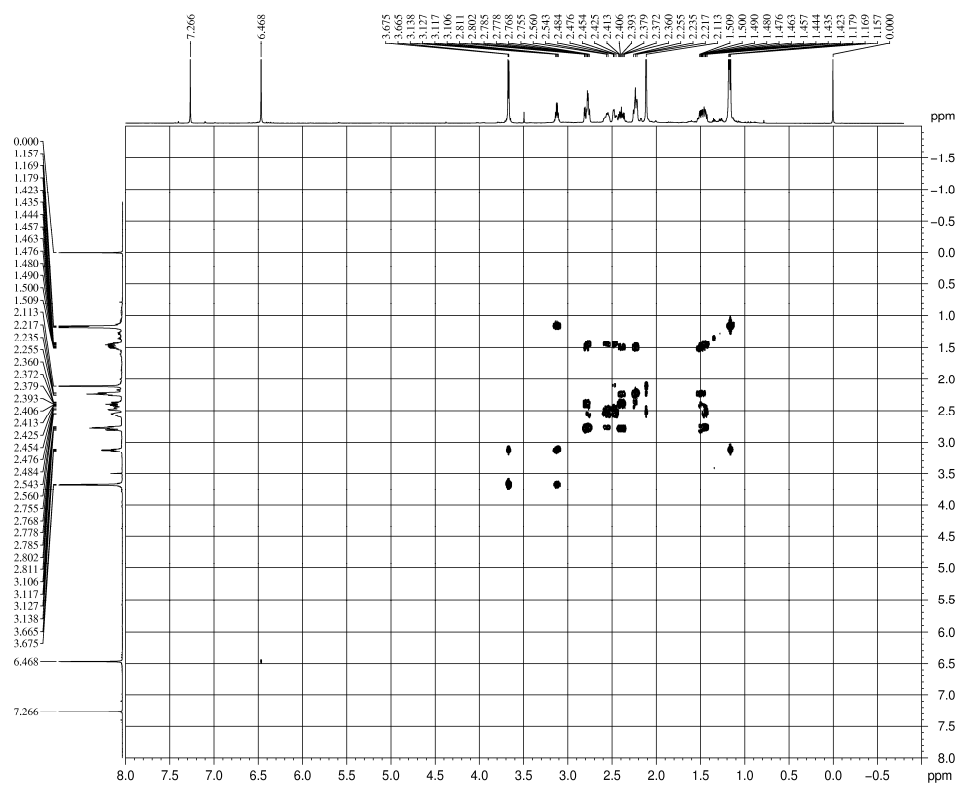


Figure S17.  $^1\text{H}$ - $^1\text{H}$  COSY spectrum of compound 2 in  $\text{CDCl}_3$ .

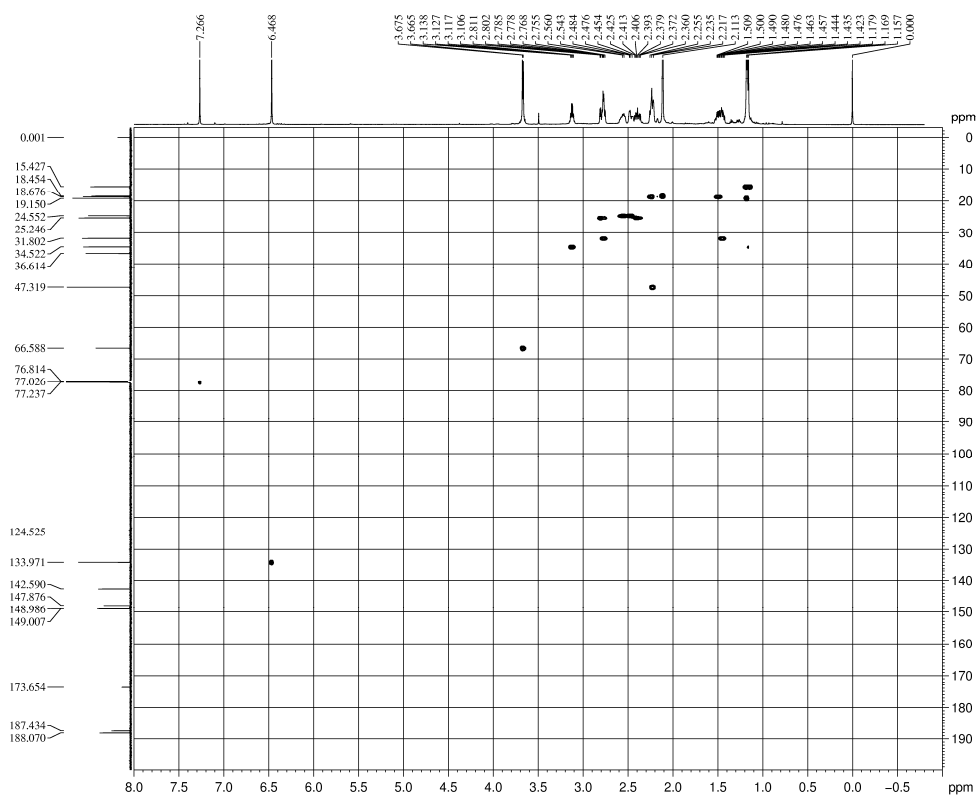


Figure S18. HSQC spectrum of compound 2 in  $\text{CDCl}_3$ .

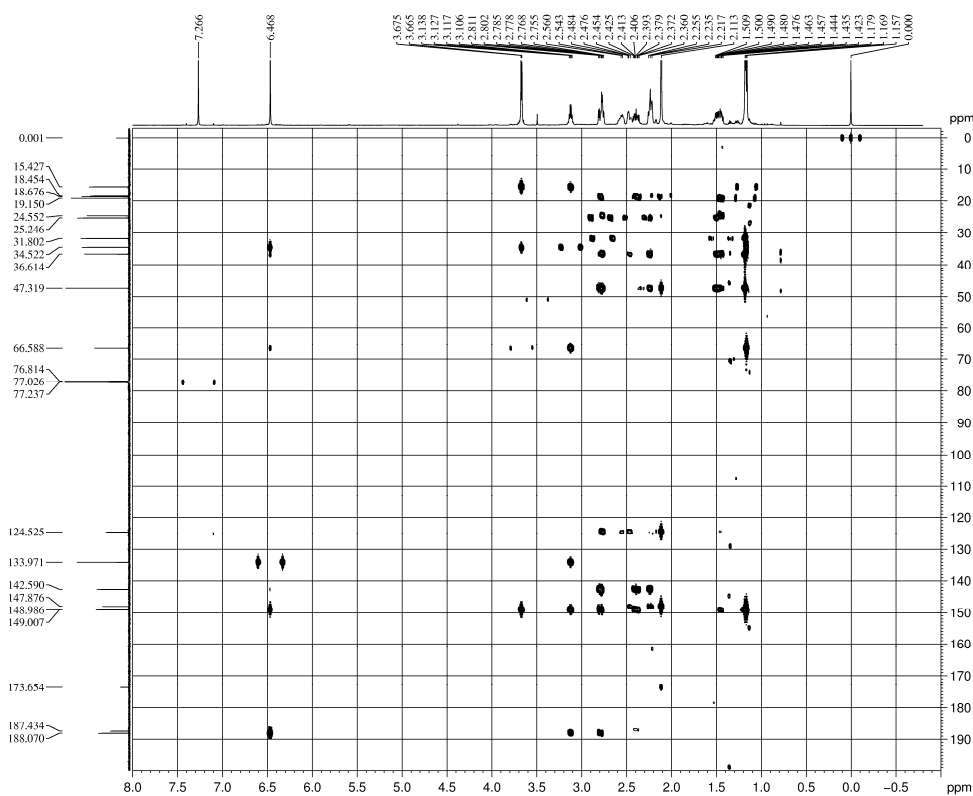


Figure S19. HMBC spectrum of compound 2 in CDCl<sub>3</sub>.

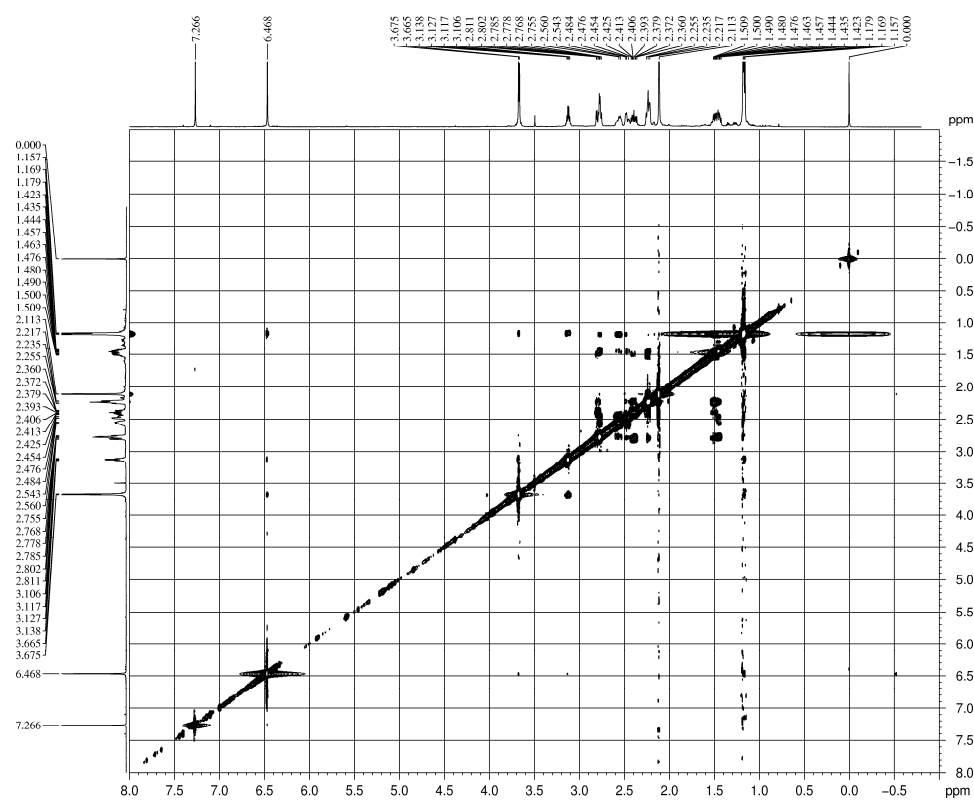


Figure S20. NOESY spectrum of compound 2 in CDCl<sub>3</sub>.

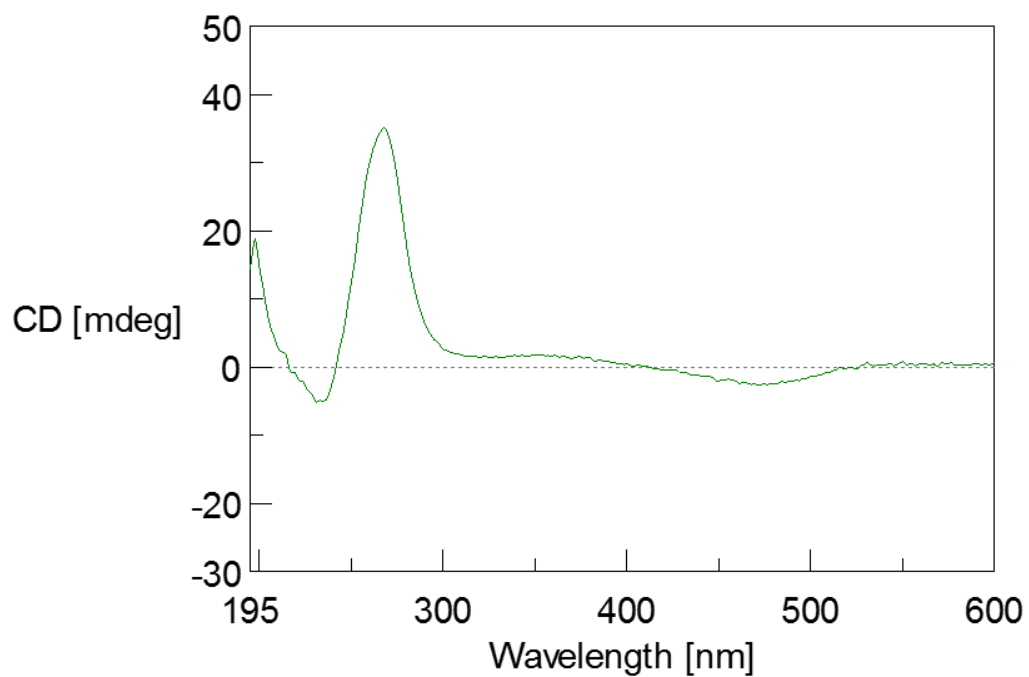


Figure S21. CD spectrum of compound 2 in MeOH.

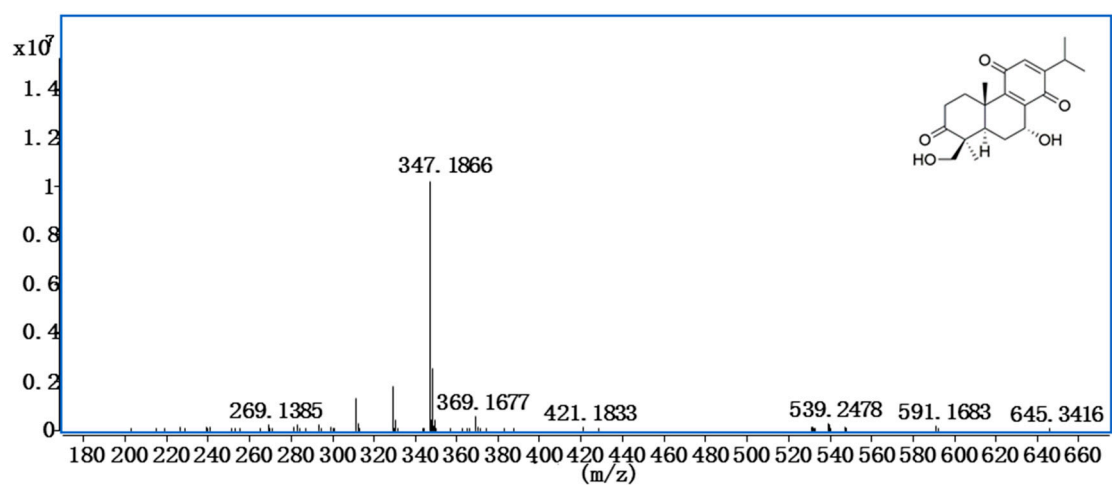


Figure S22. HRESIMS spectrum of compound 3.

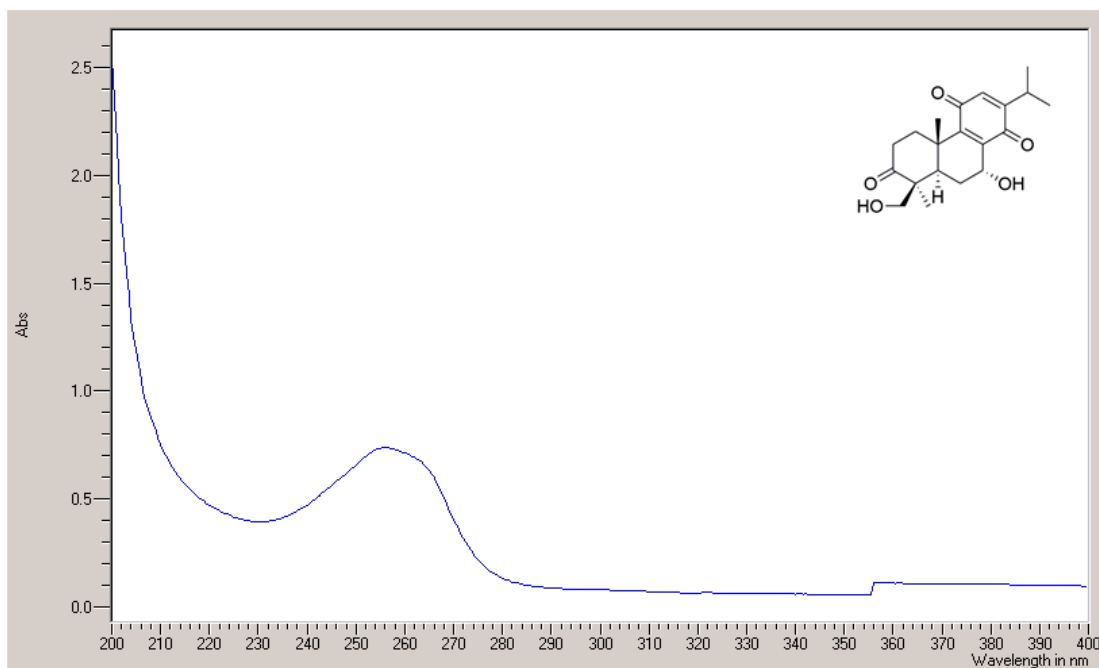


Figure S23. UV spectrum of compound 3 in MeOH.

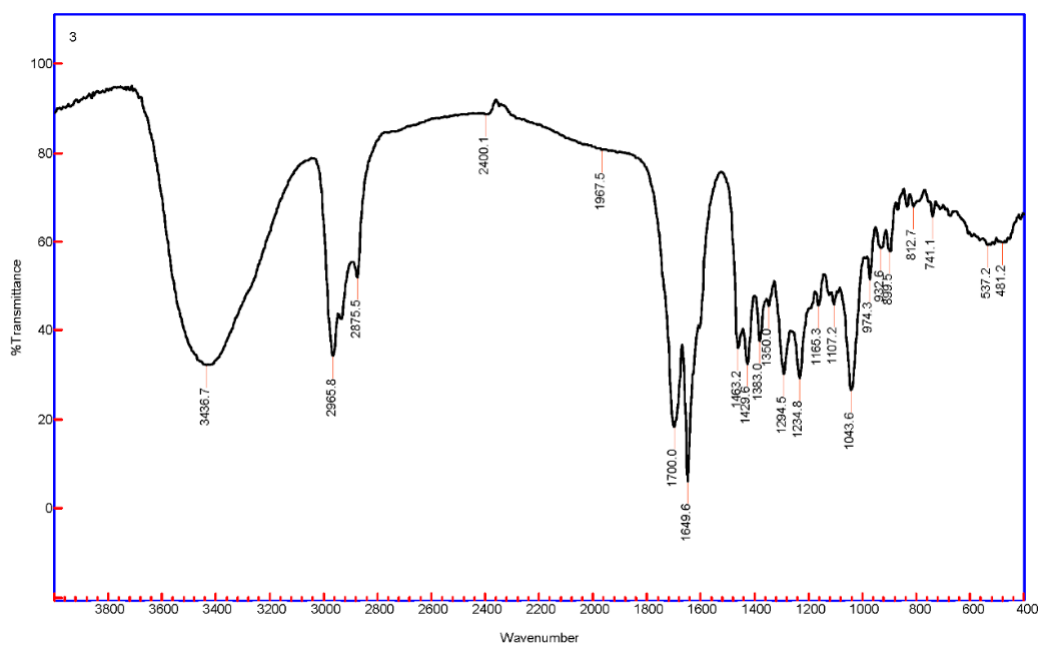


Figure S24. IR spectrum of compound 3.

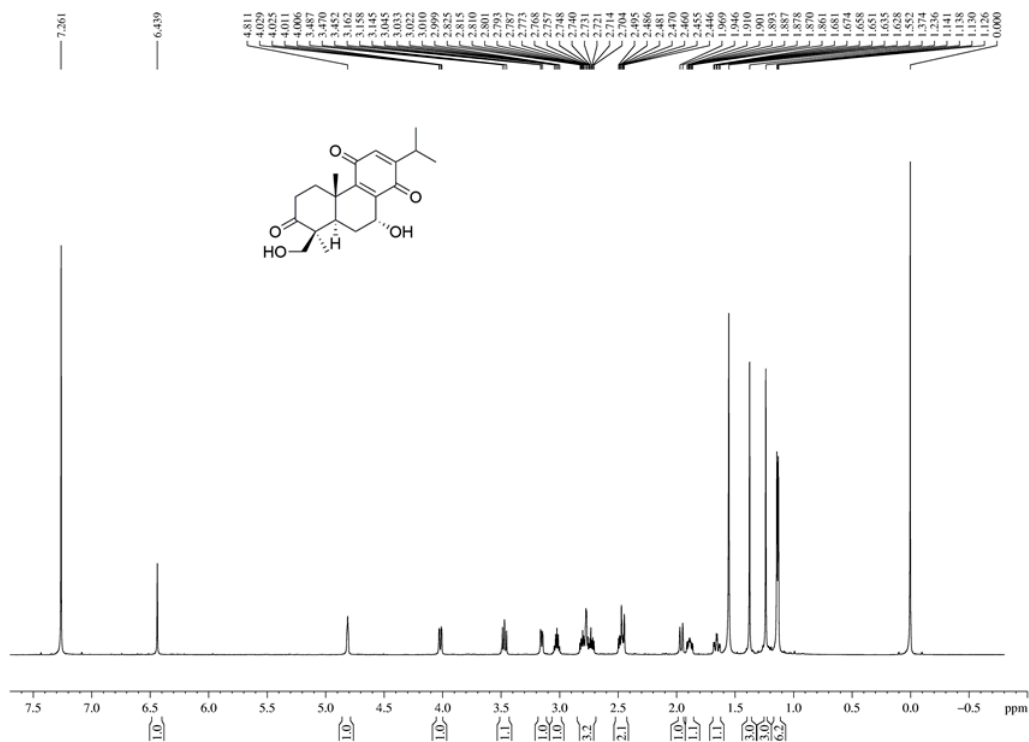


Figure S25. <sup>1</sup>H NMR spectrum of compound 3 in CDCl<sub>3</sub>.

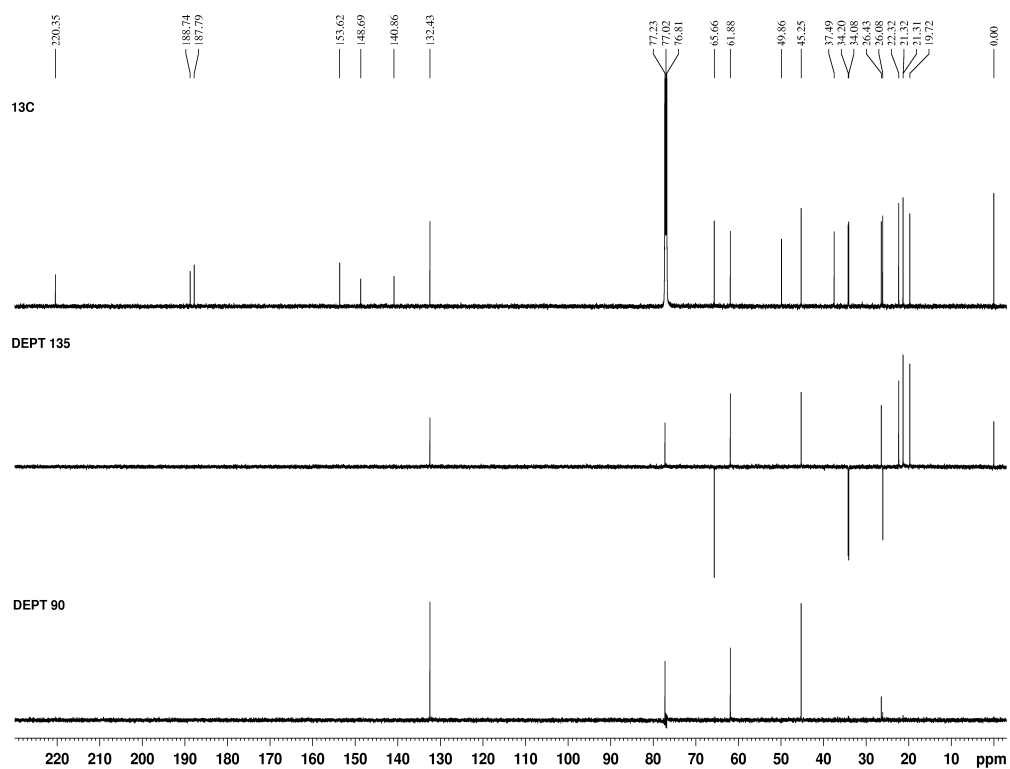


Figure S26. <sup>13</sup>C and DEPT NMR spectra of compound 3 in CDCl<sub>3</sub>.

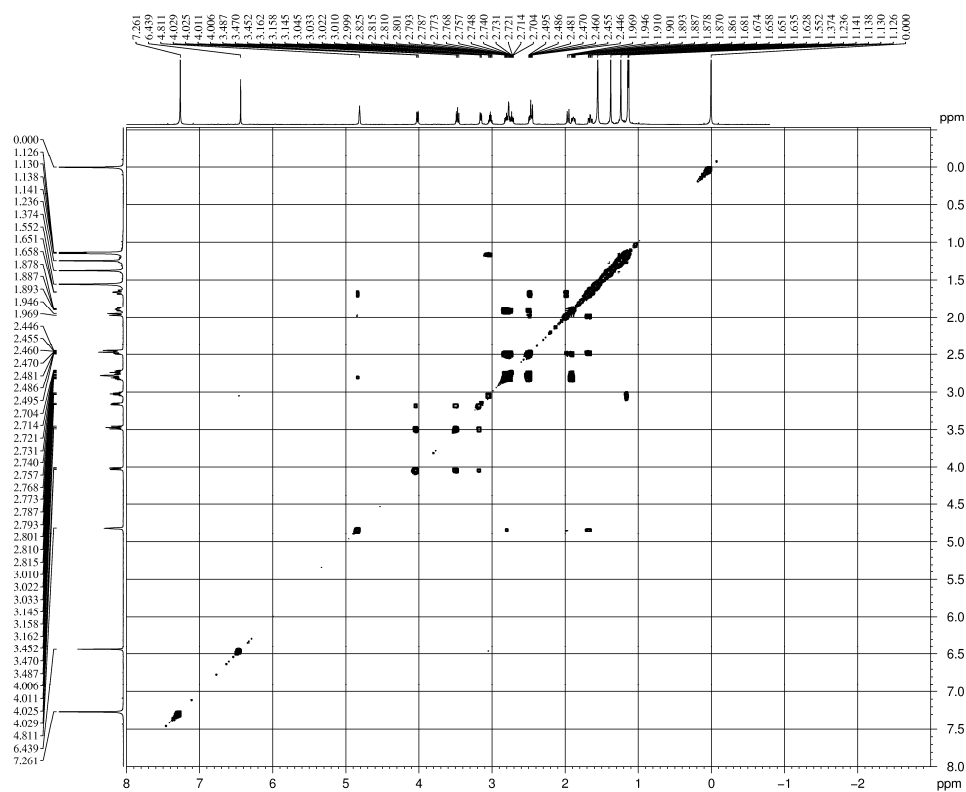


Figure S27.  $^1\text{H}$ - $^1\text{H}$  COSY spectrum of compound 3 in  $\text{CDCl}_3$ .

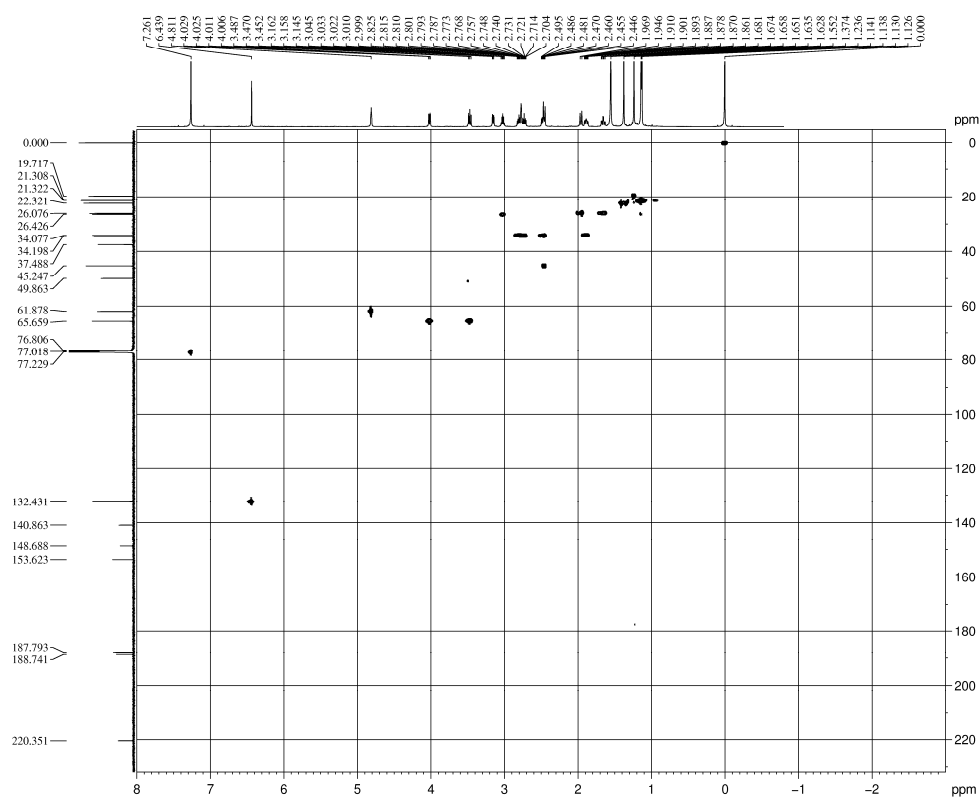


Figure S28. HSQC spectrum of compound 3 in  $\text{CDCl}_3$ .

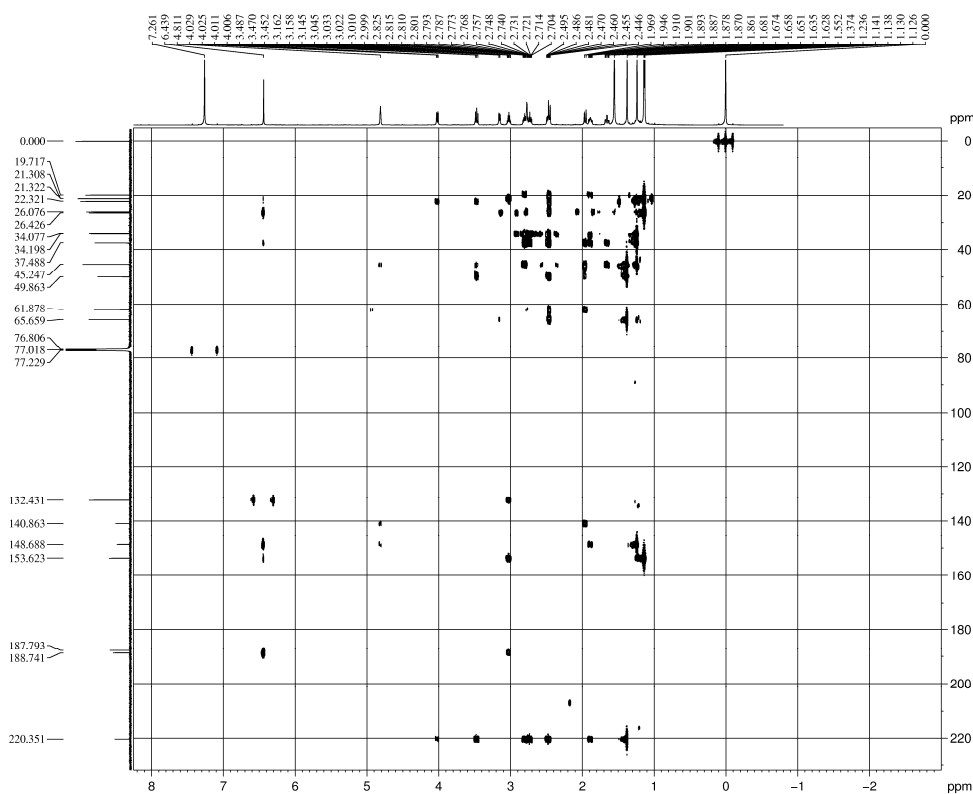


Figure S29. HMBC spectrum of compound 3 in CDCl<sub>3</sub>.

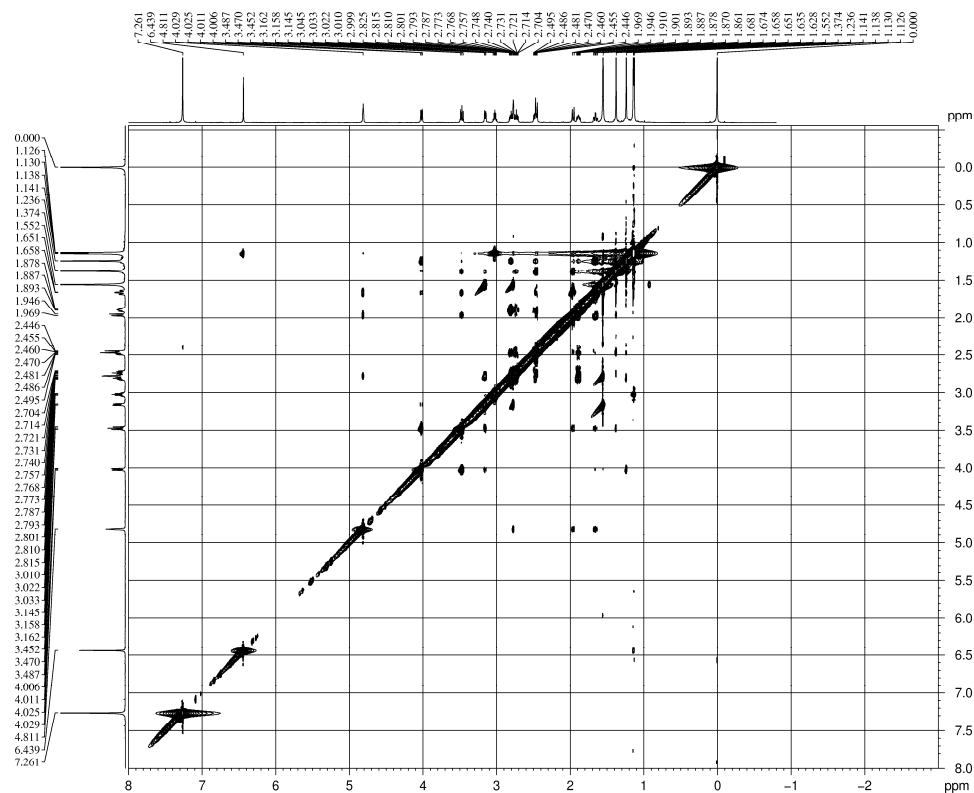


Figure S30. NOESY spectrum of compound 3 in CDCl<sub>3</sub>.

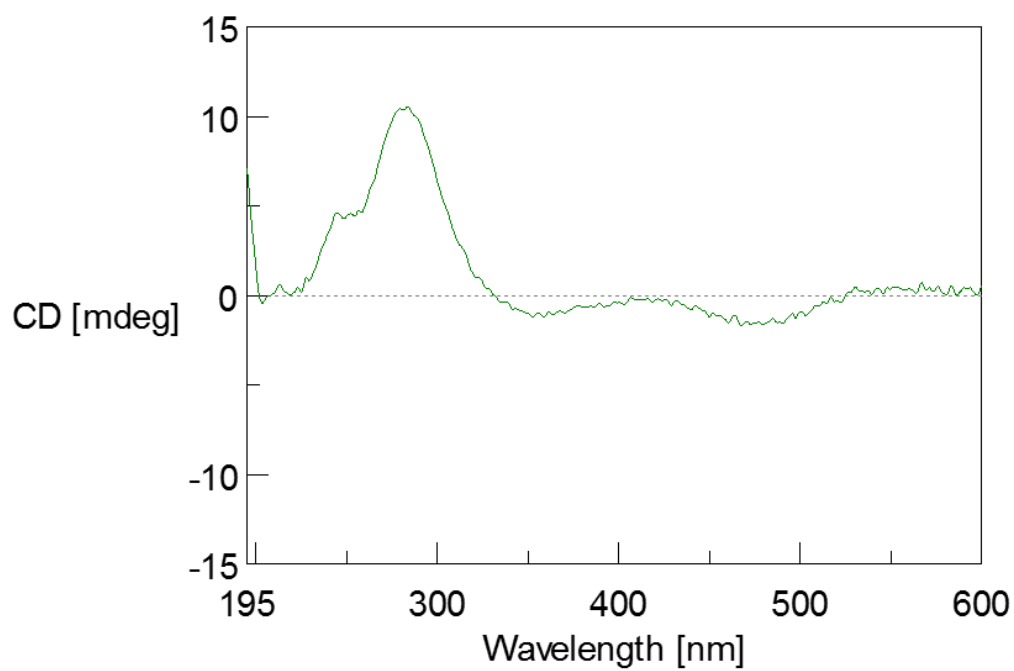


Figure S31. CD spectrum of compound 3 in MeOH.

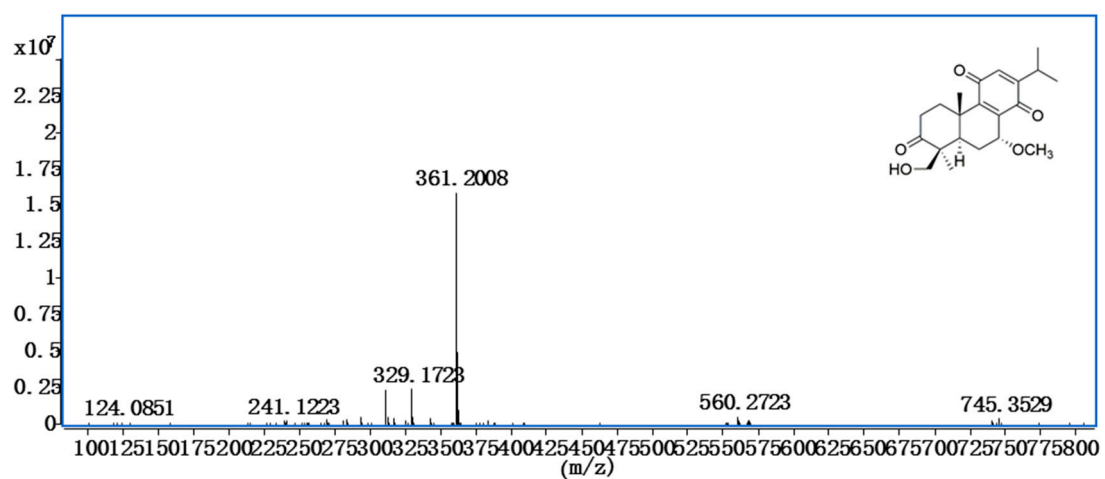


Figure S32. HRESIMS spectrum of compound 4.



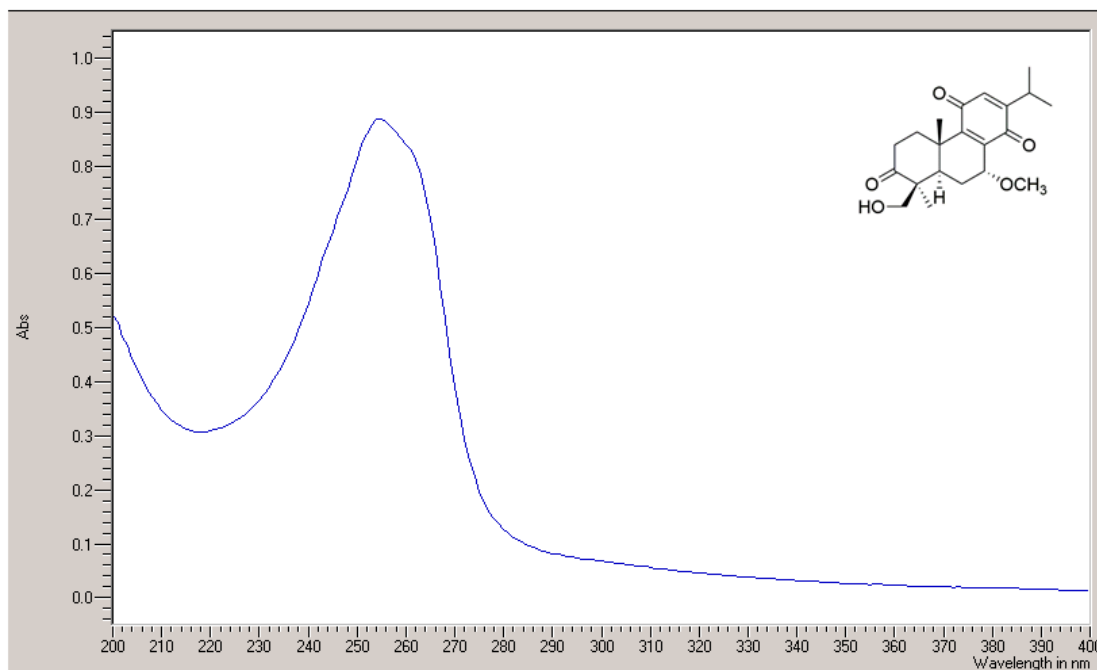


Figure S33. UV spectrum of compound 4 in MeOH.

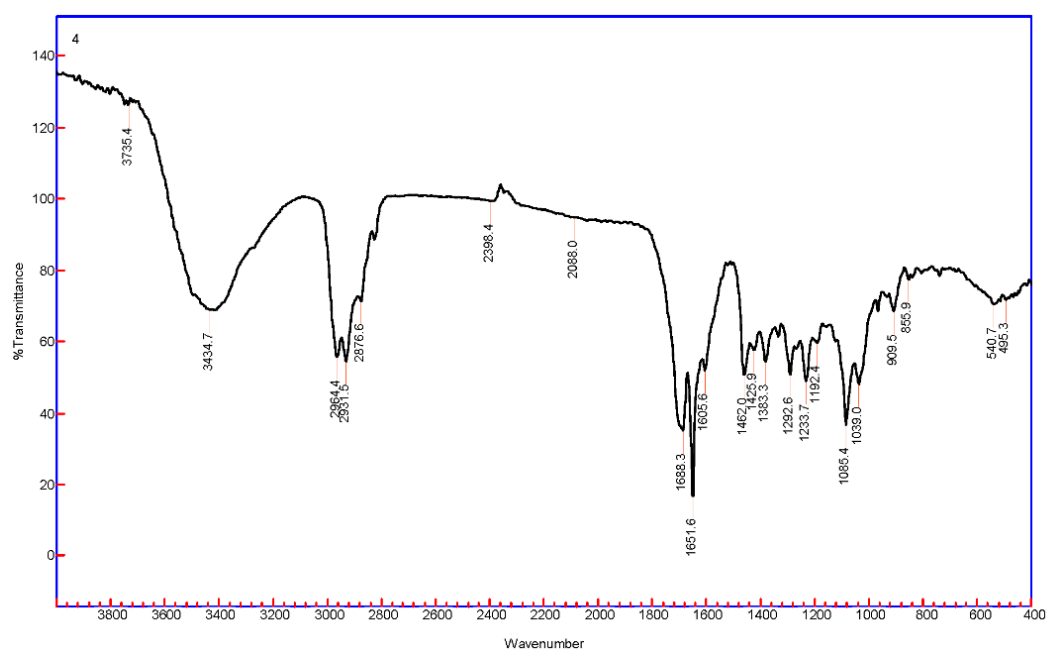


Figure S34. IR spectrum of compound 4.

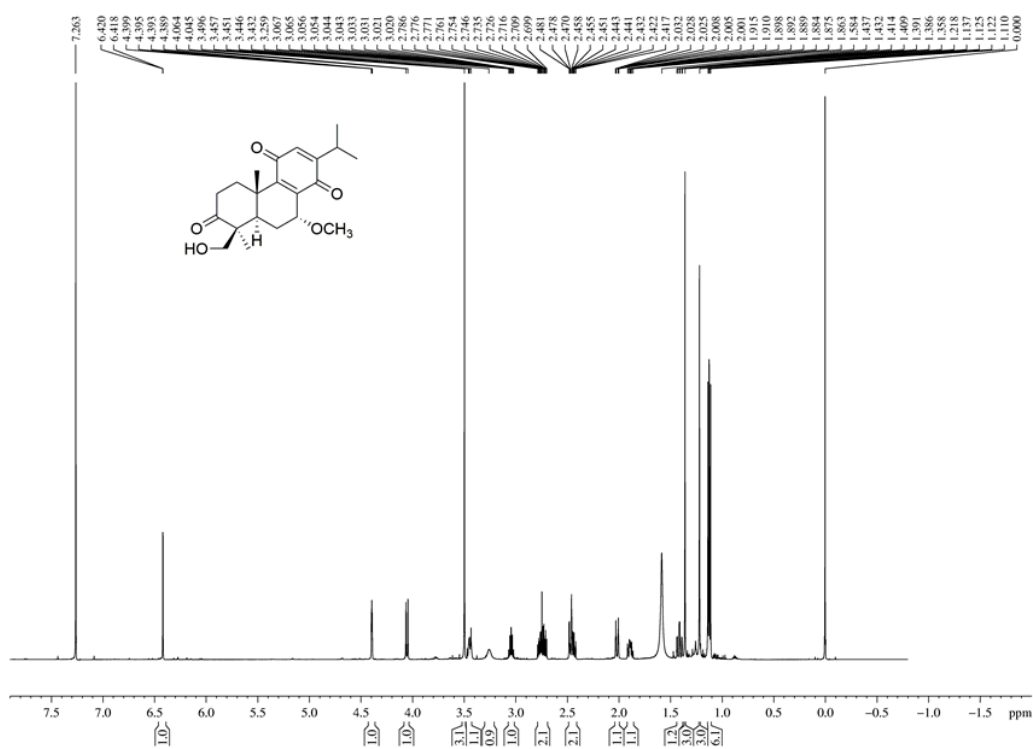


Figure S35. <sup>1</sup>H NMR spectrum of compound 4 in CDCl<sub>3</sub>.

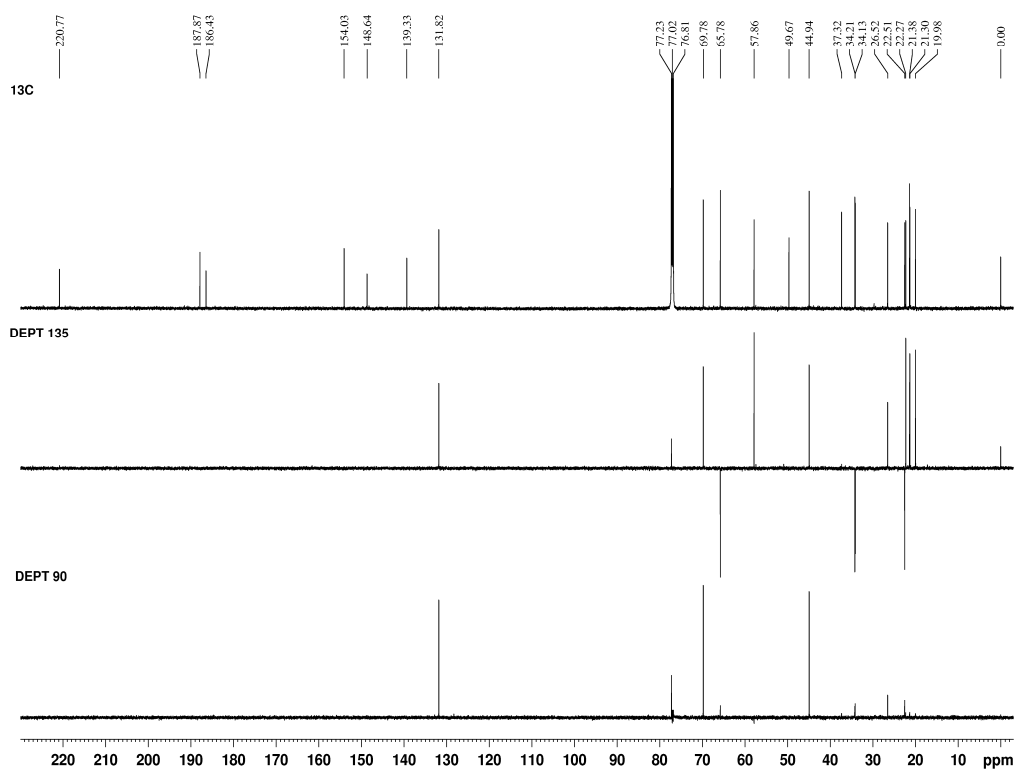


Figure S36. <sup>13</sup>C and DEPT NMR spectra of compound 4 in CDCl<sub>3</sub>.

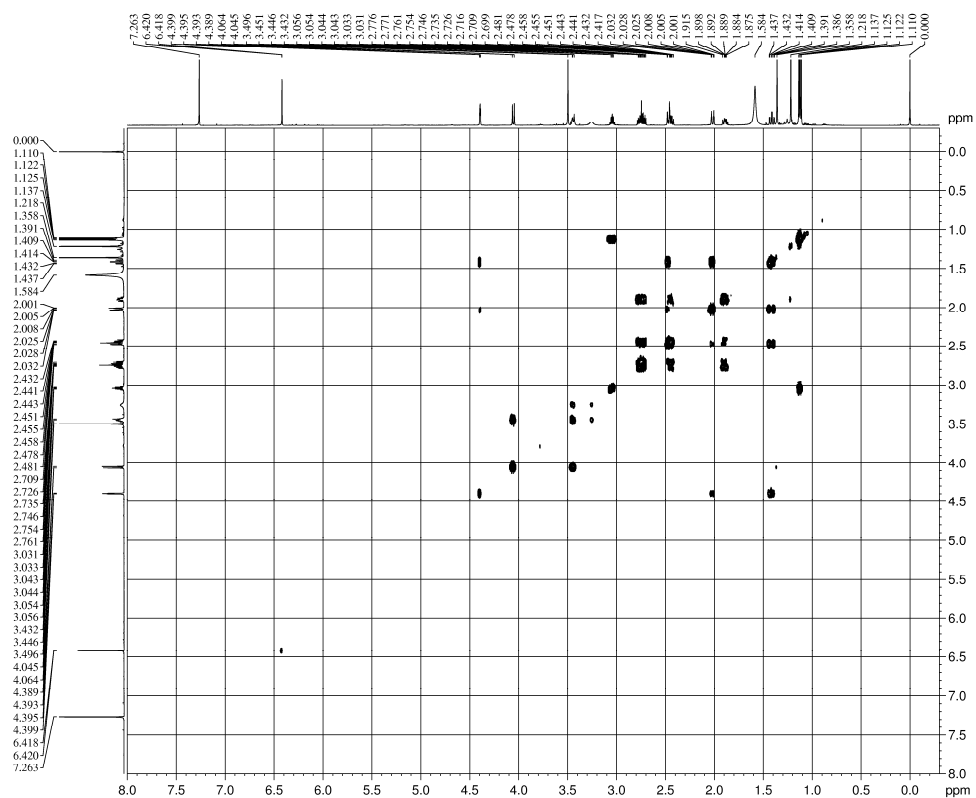


Figure S37.  $^1\text{H}$ - $^1\text{H}$  COSY spectrum of compound 4 in  $\text{CDCl}_3$ .

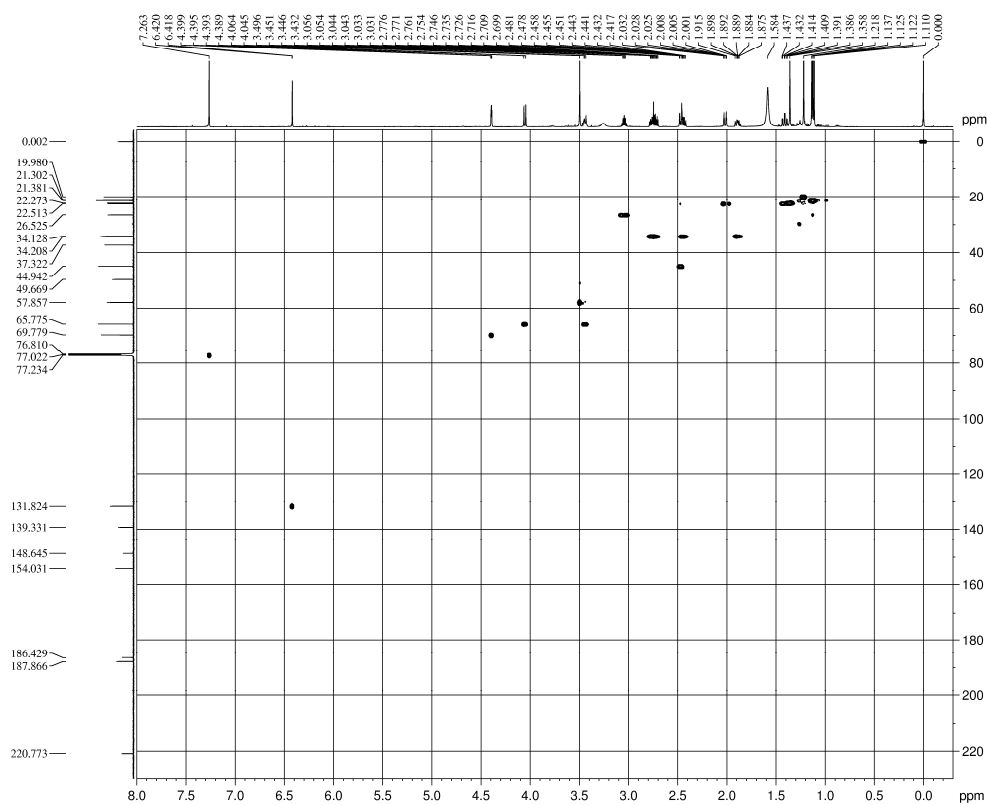


Figure S38. HSQC spectrum of compound 4 in  $\text{CDCl}_3$ .

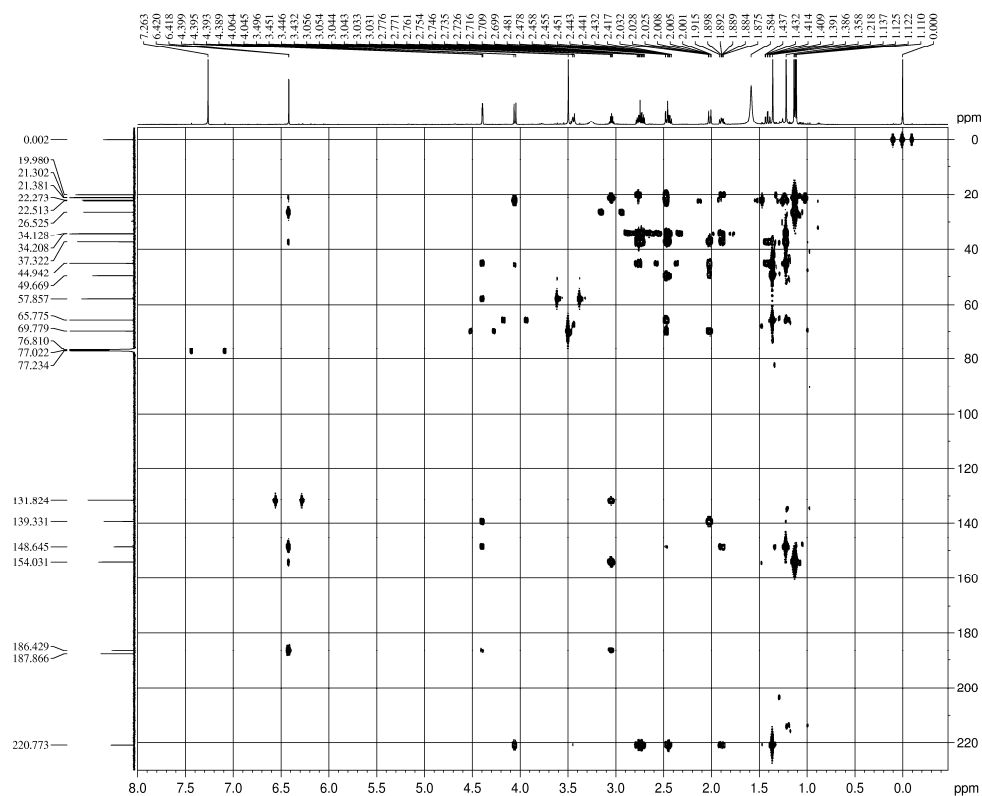


Figure S39. HMBC spectrum of compound 4 in CDCl<sub>3</sub>.

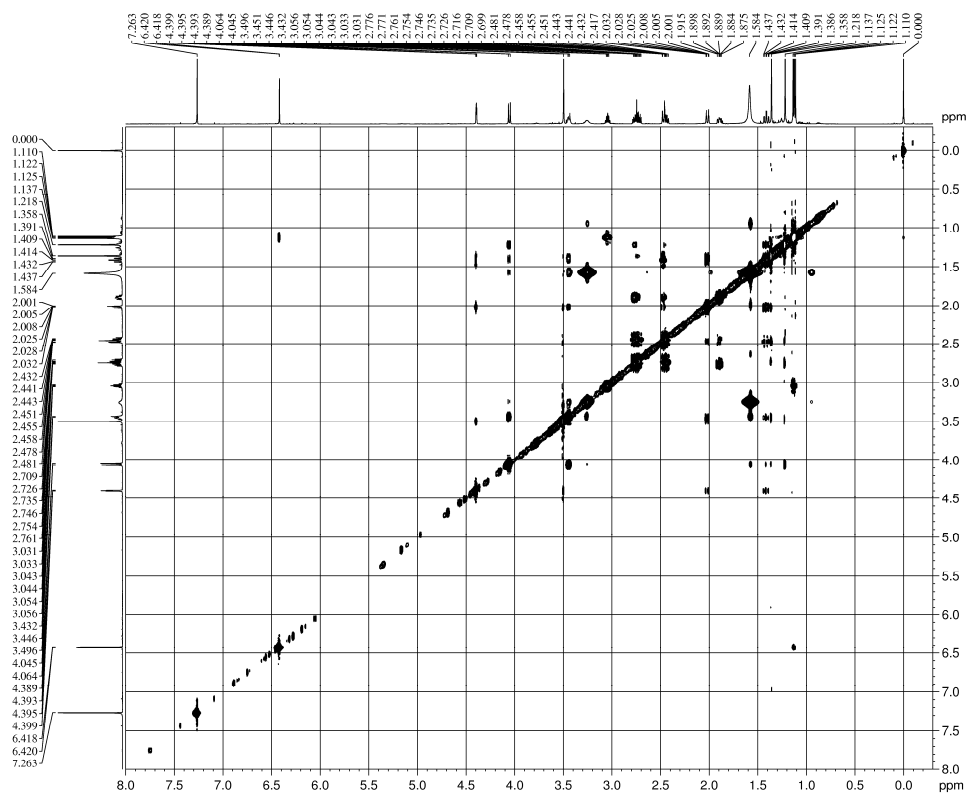


Figure S40. NOESY spectrum of compound 4 in CDCl<sub>3</sub>.

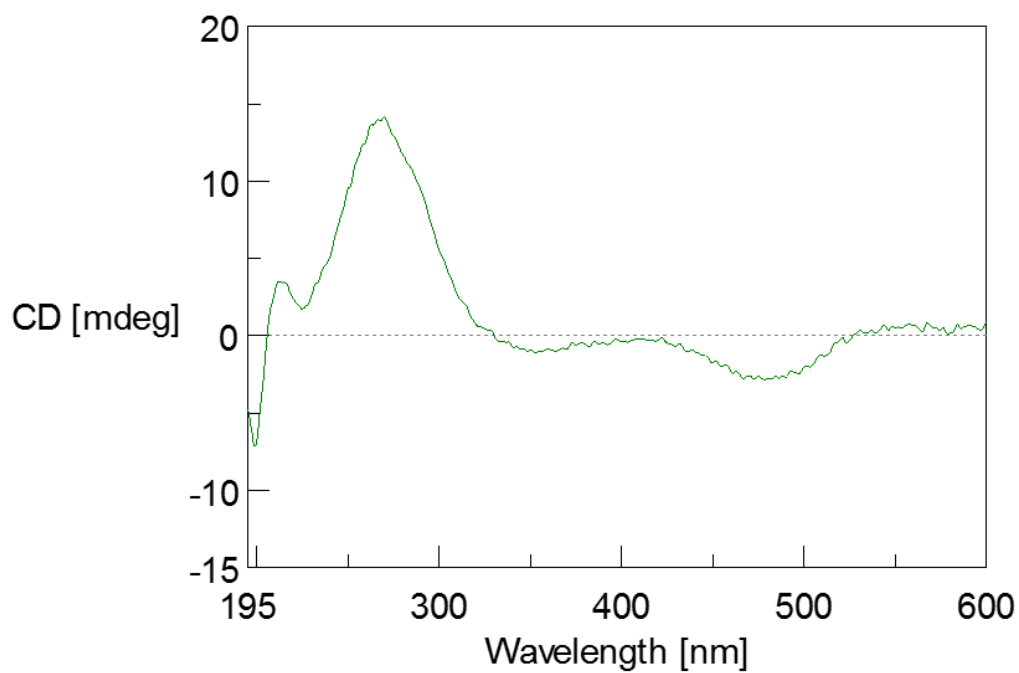


Figure S41. CD spectrum of compound 4 in MeOH.

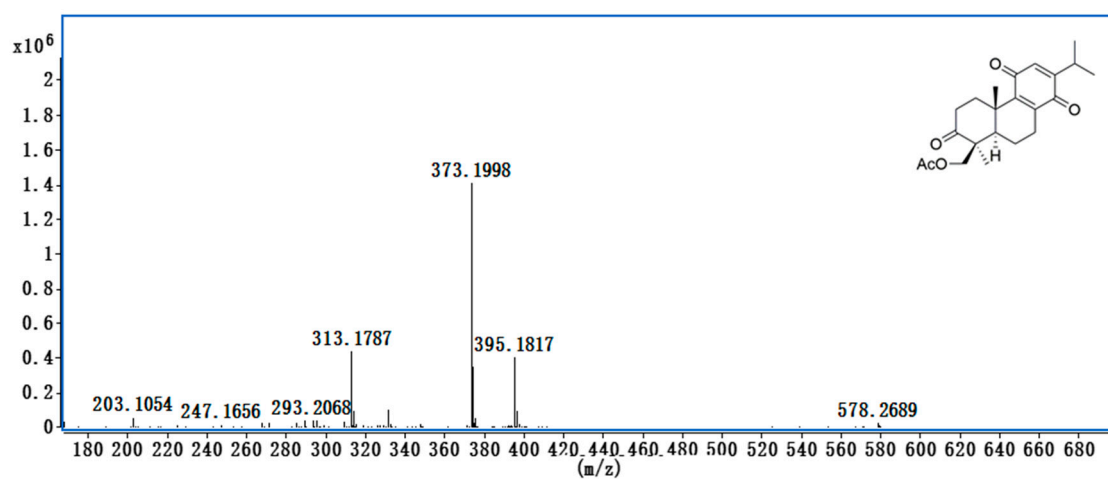


Figure S42. HRESIMS spectrum of compound 5.

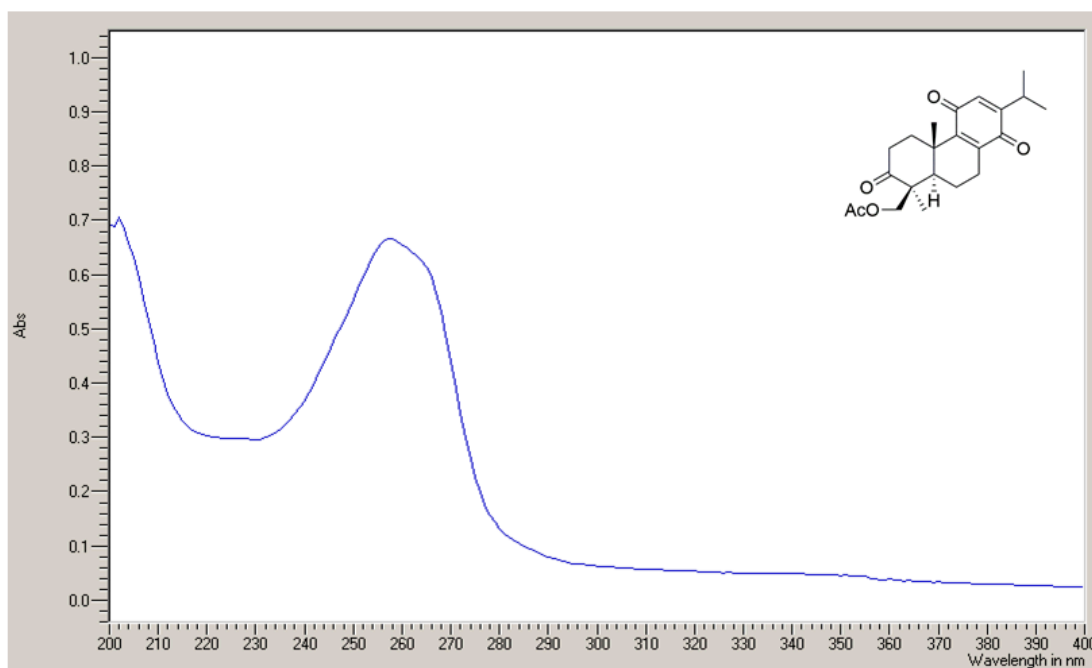


Figure S43. UV spectrum of compound 5 in MeOH.

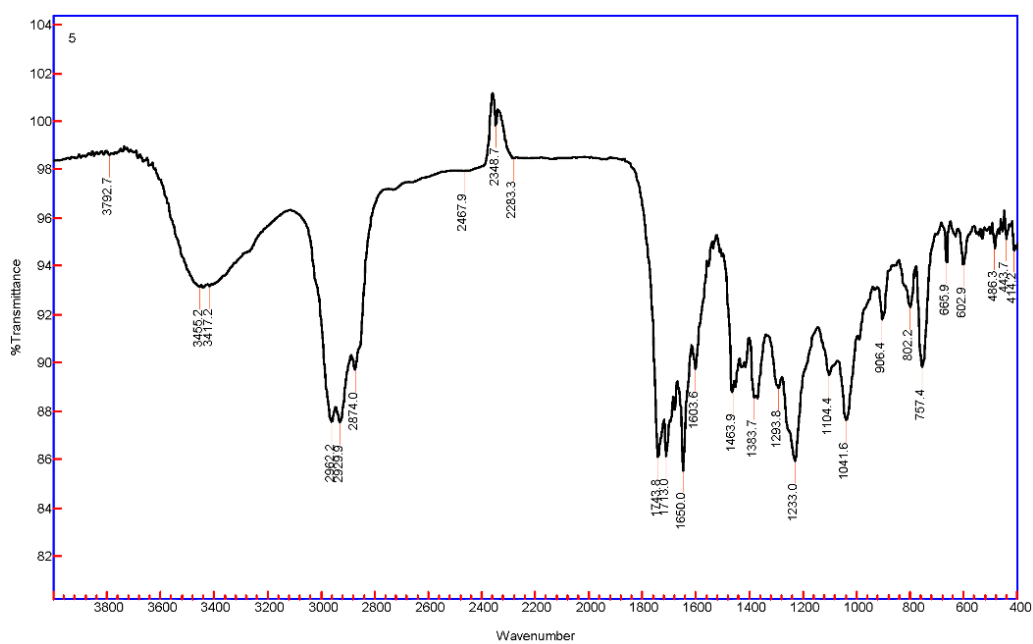


Figure S44. IR spectrum of compound 5.

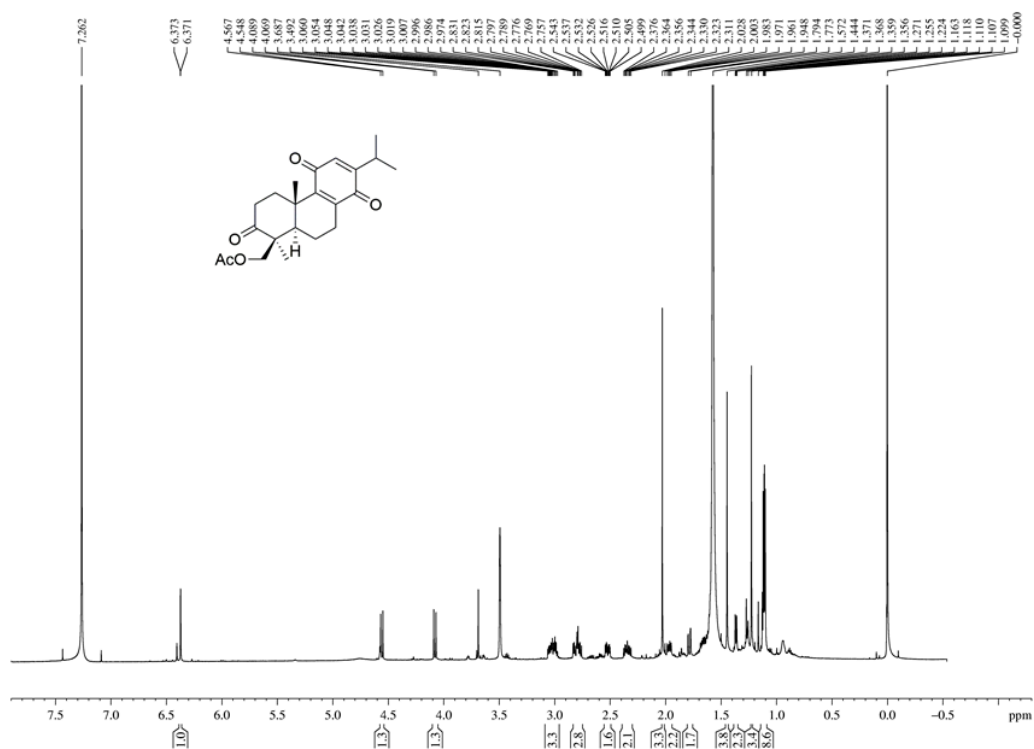


Figure S45. <sup>1</sup>H NMR spectrum of compound 5 in CDCl<sub>3</sub>.

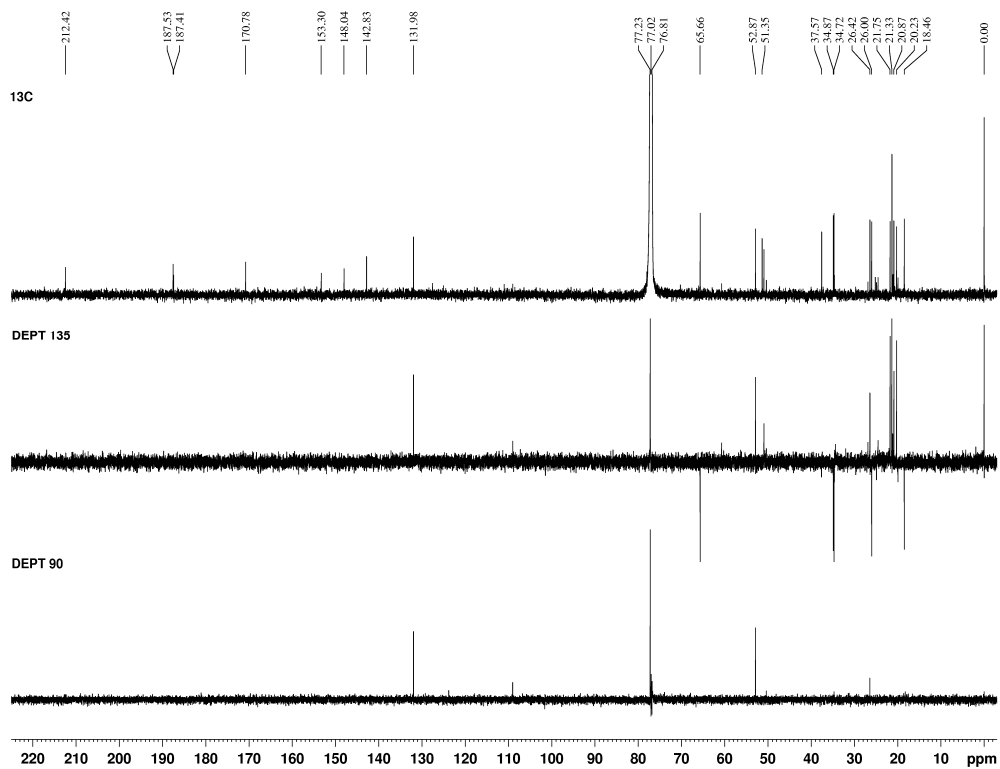


Figure S46. <sup>13</sup>C and DEPT NMR spectra of compound 5 in CDCl<sub>3</sub>.

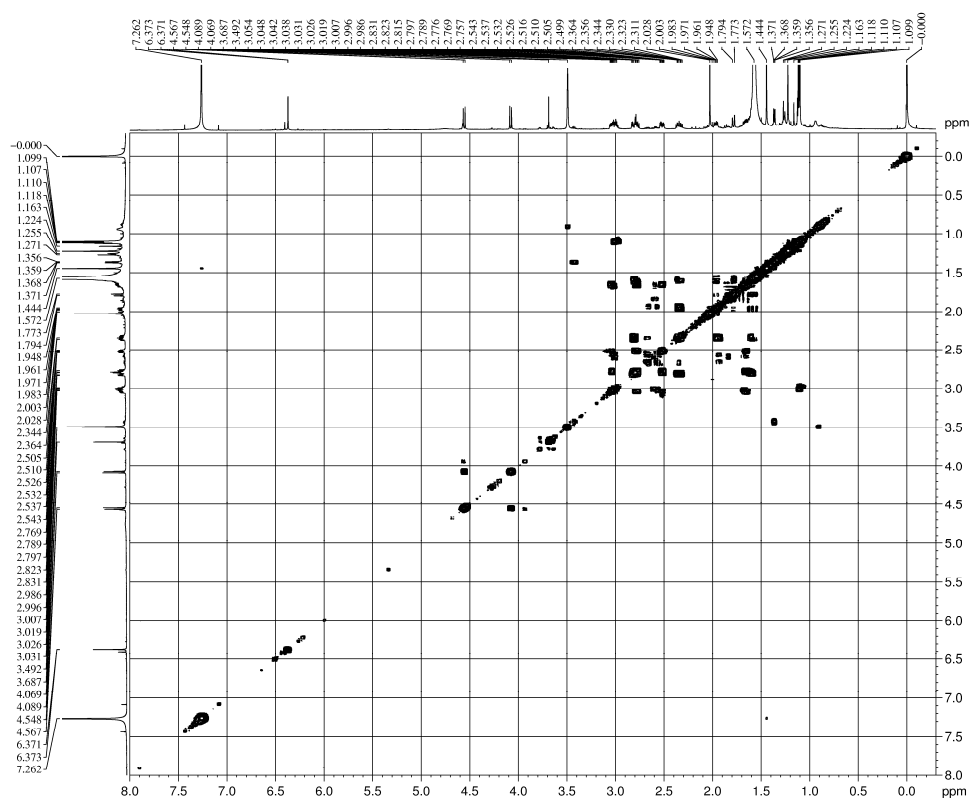


Figure S47.  $^1\text{H}$ - $^1\text{H}$  COSY spectrum of compound 5 in  $\text{CDCl}_3$ .

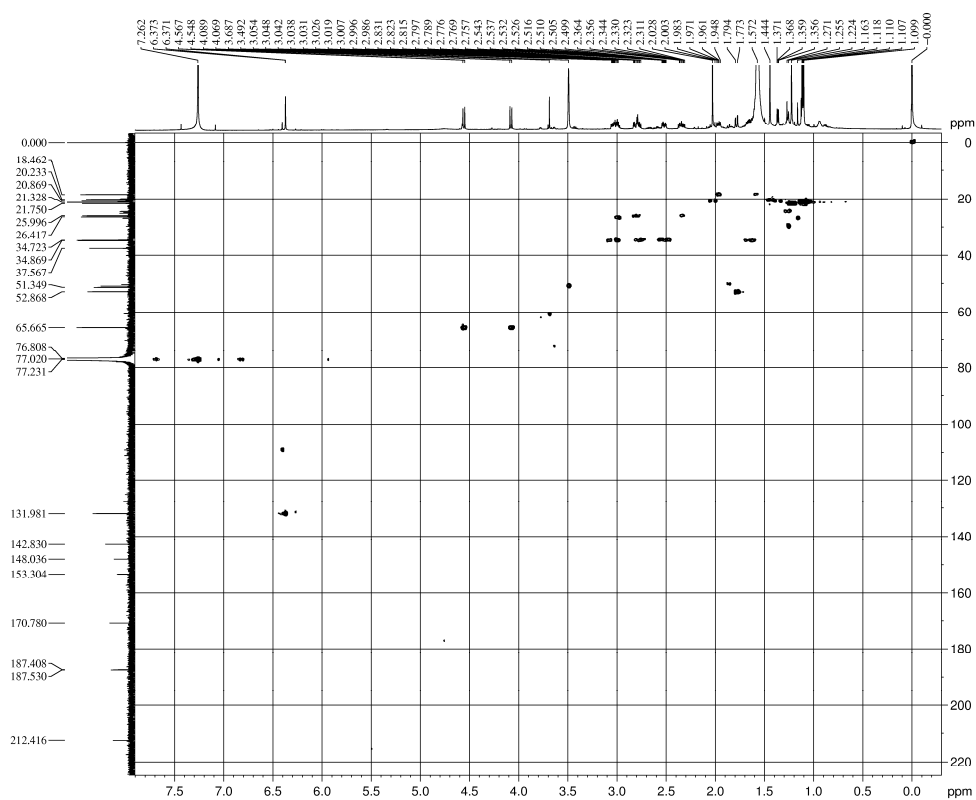


Figure S48. HSQC spectrum of compound 5 in  $\text{CDCl}_3$ .



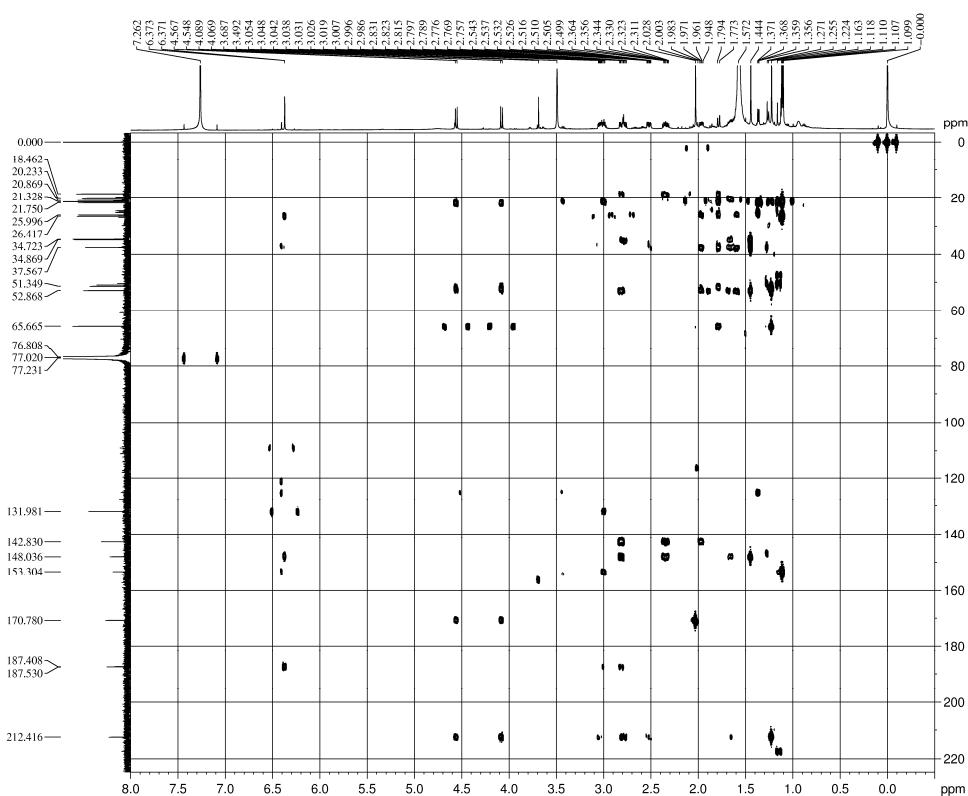


Figure S49. HMBC spectrum of compound 5 in CDCl<sub>3</sub>.

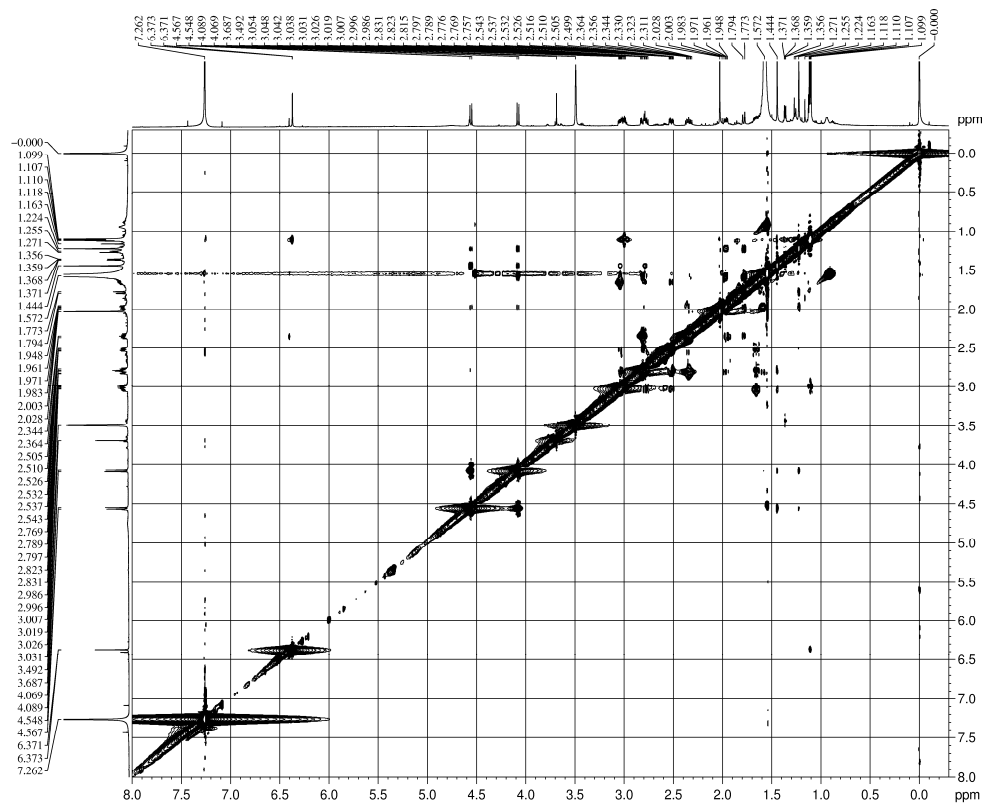


Figure S50. NOESY spectrum of compound 5 in CDCl<sub>3</sub>.

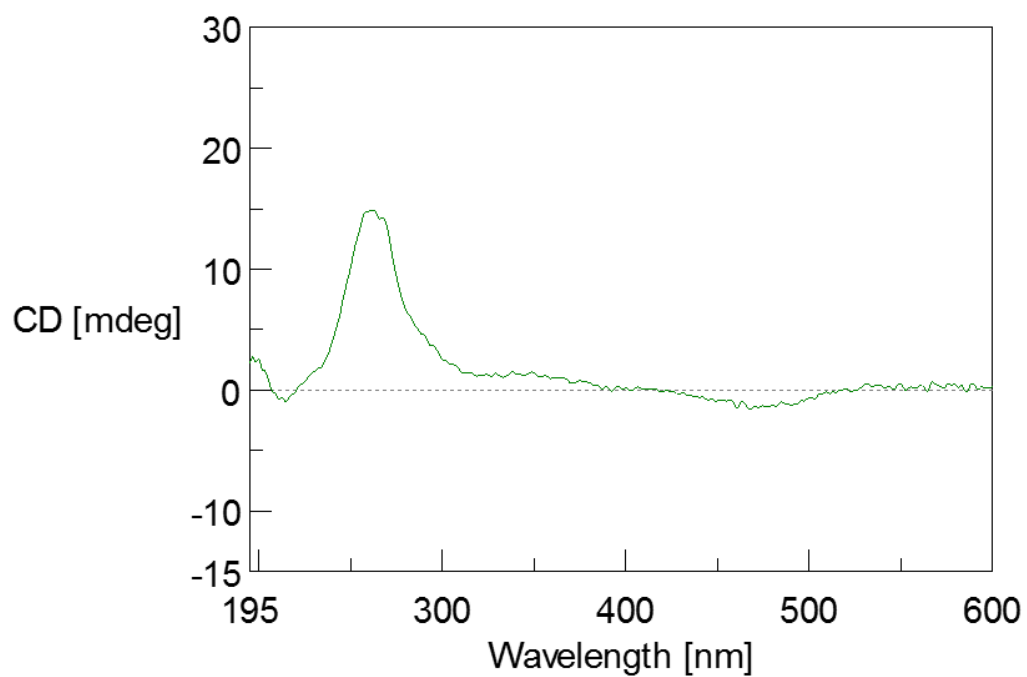


Figure S51. CD spectrum of compound 5 in MeOH.

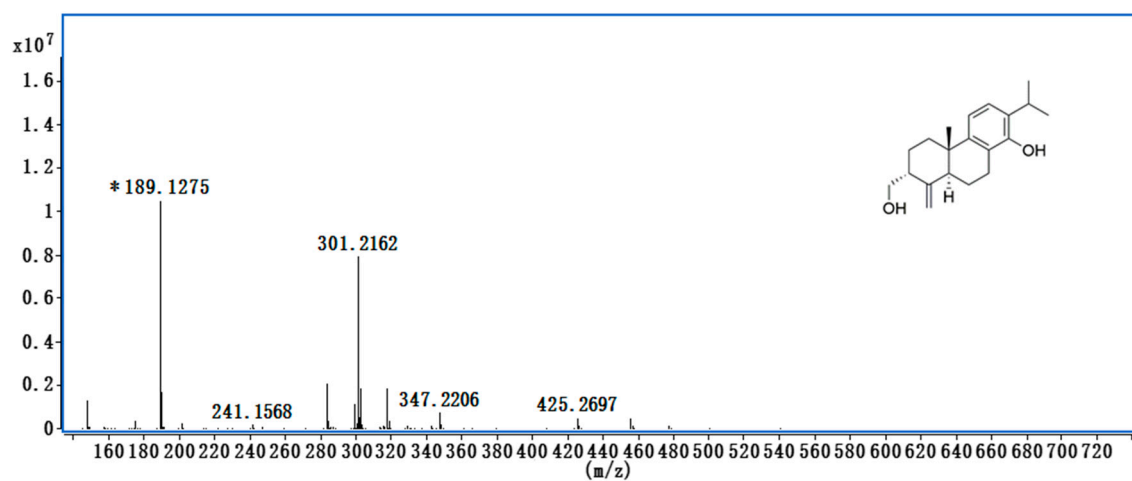


Figure S52. HRESIMS spectrum of compound 6.

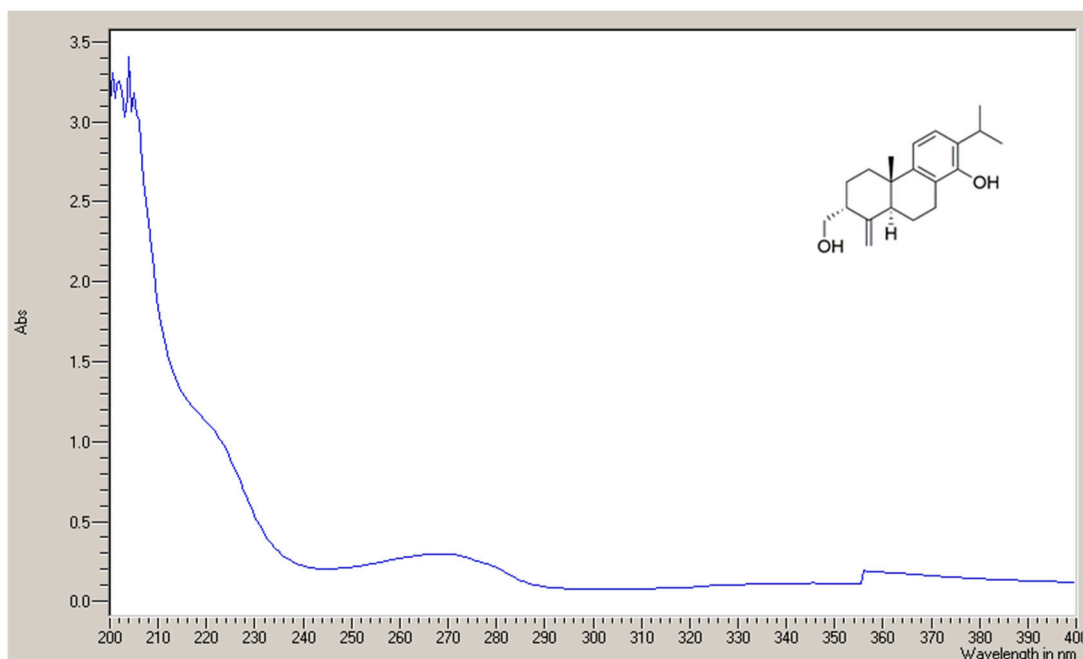


Figure S53. UV spectrum of compound 6 in MeOH.

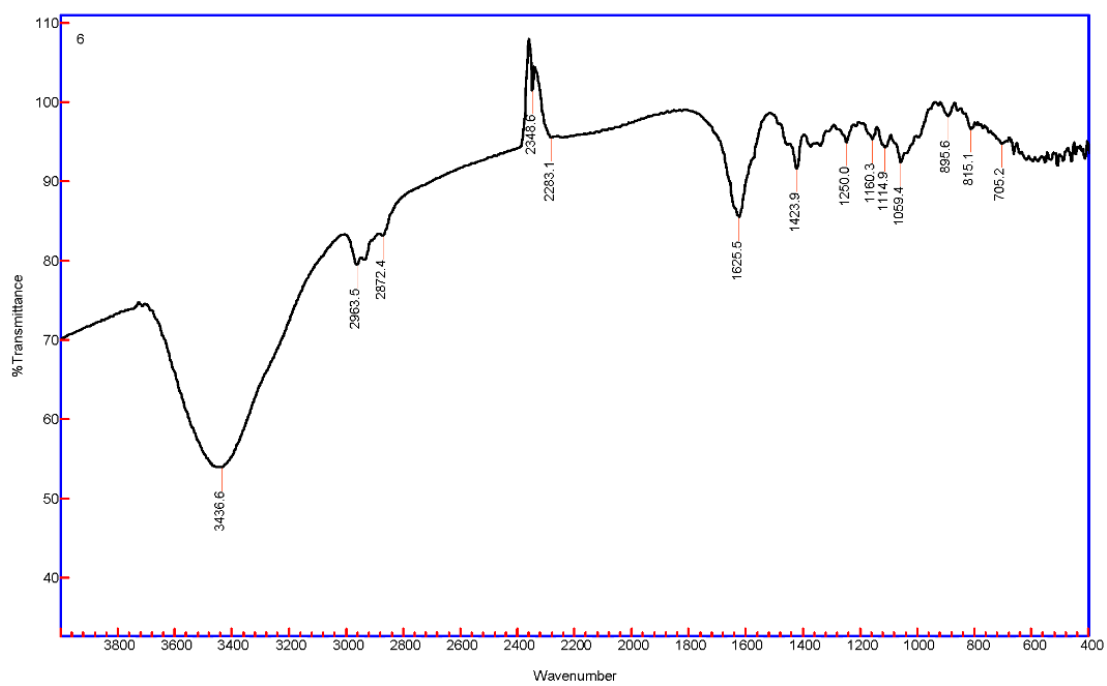


Figure S54. IR spectrum of compound 6.

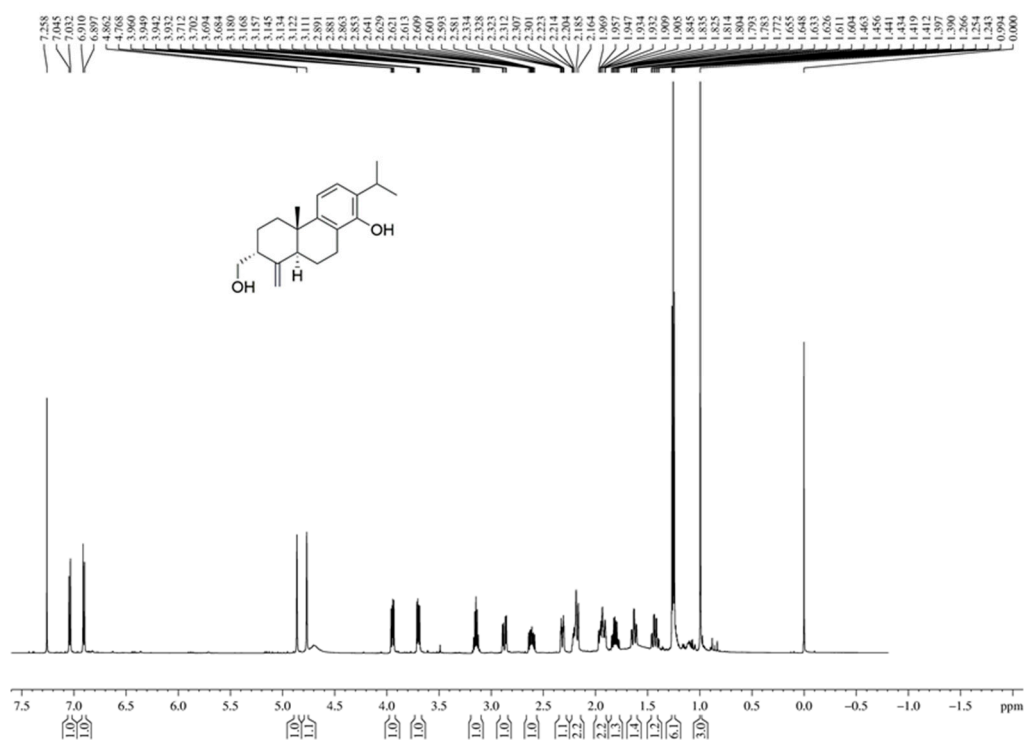


Figure S55. <sup>1</sup>H NMR spectrum of compound 6 in CDCl<sub>3</sub>.

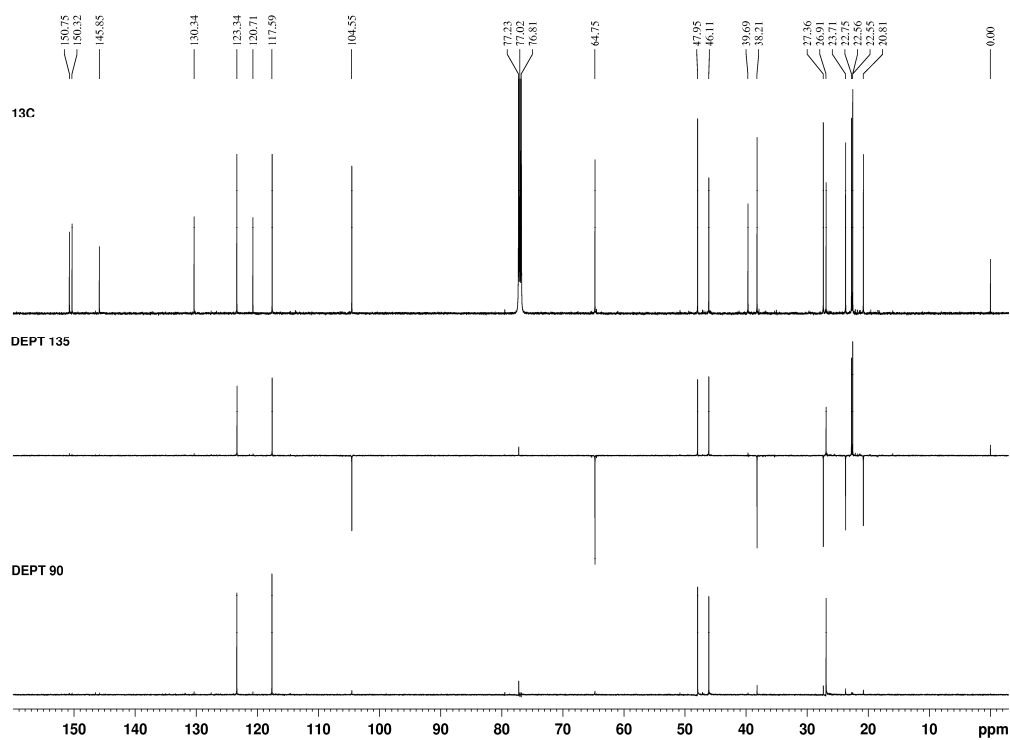


Figure S56. <sup>13</sup>C and DEPT NMR spectra of compound 6 in CDCl<sub>3</sub>.

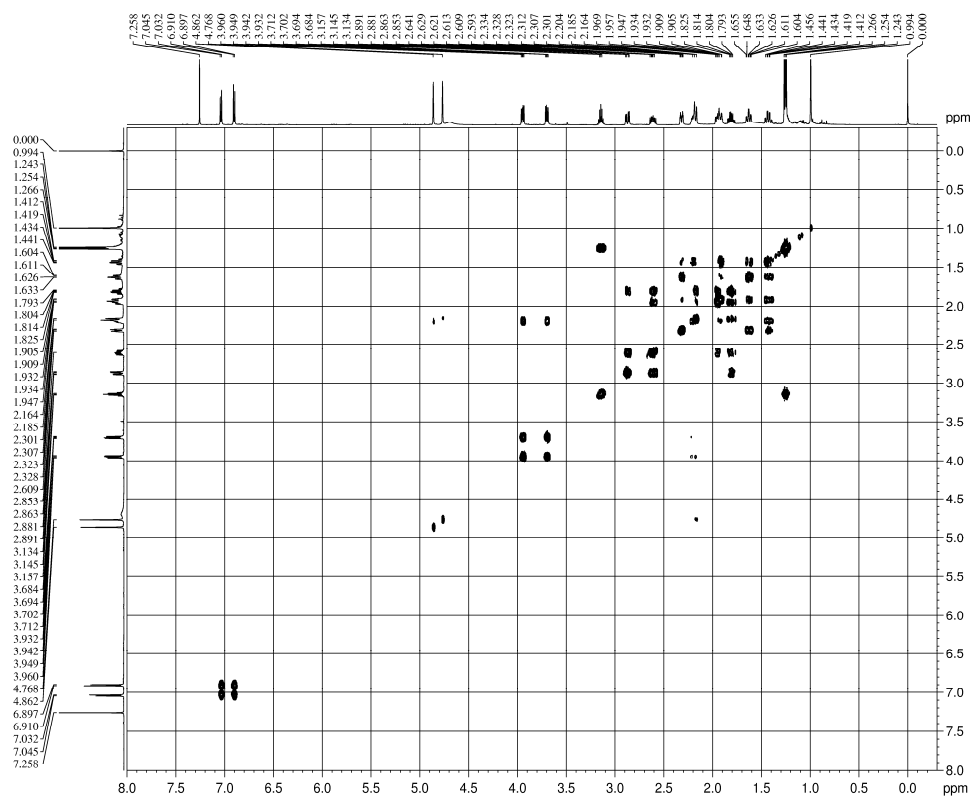


Figure S57.  $^1\text{H}$ - $^1\text{H}$  COSY spectrum of compound 6 in  $\text{CDCl}_3$ .

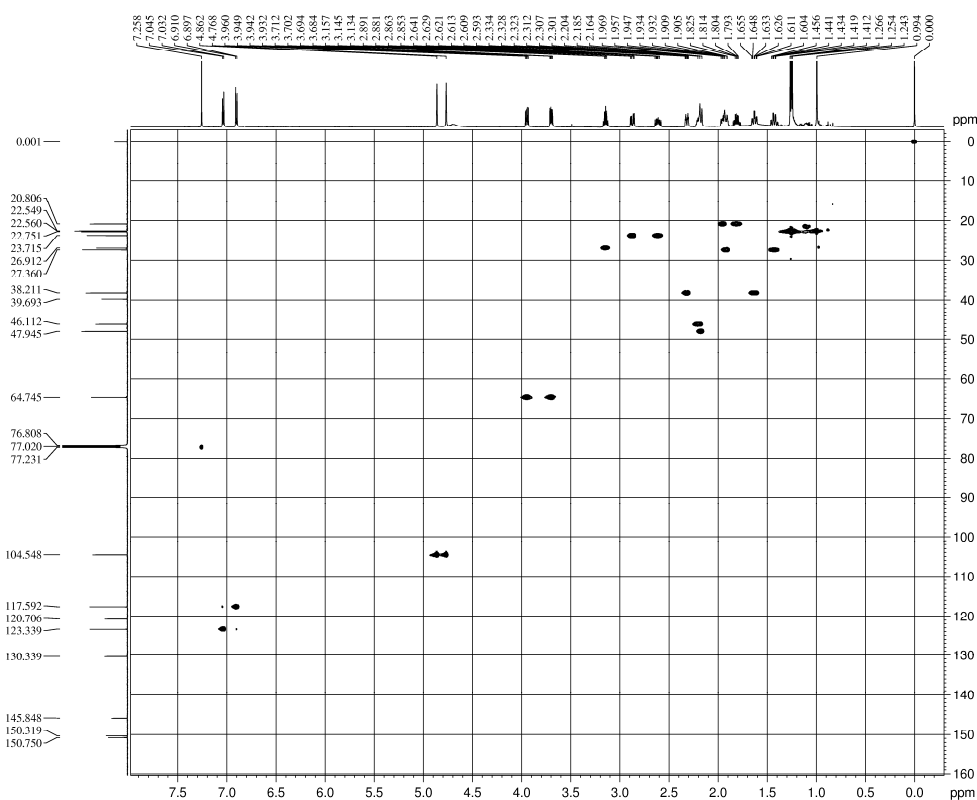


Figure S58. HSQC spectrum of compound 6 in  $\text{CDCl}_3$ .

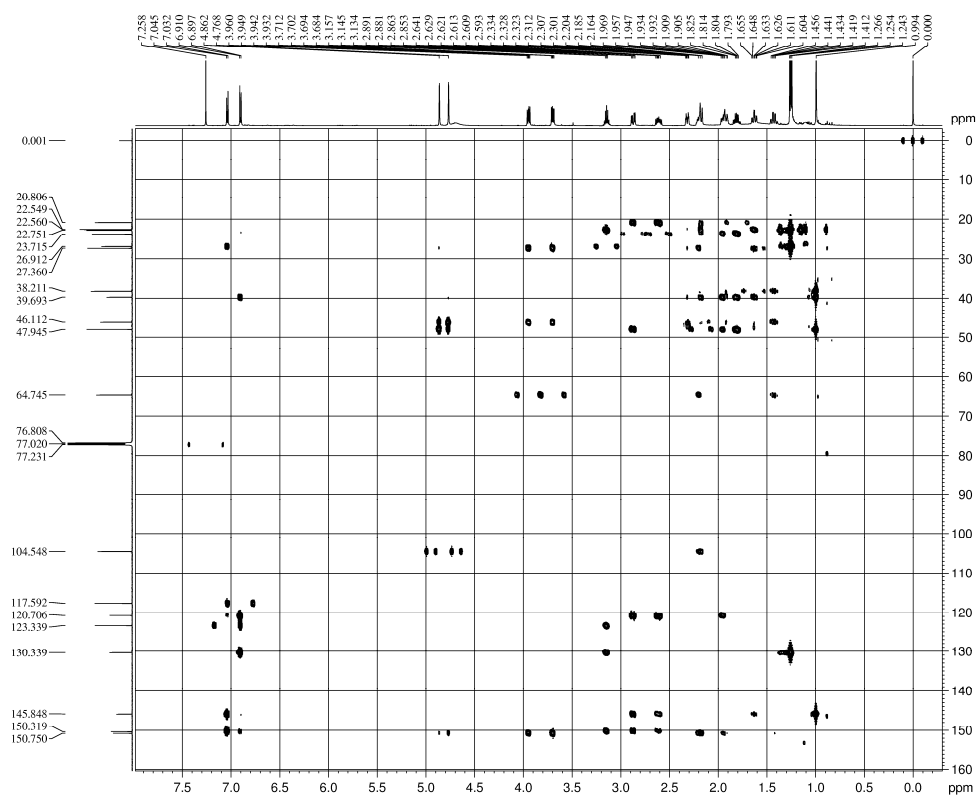


Figure S59. HMBC spectrum of compound 6 in CDCl<sub>3</sub>.

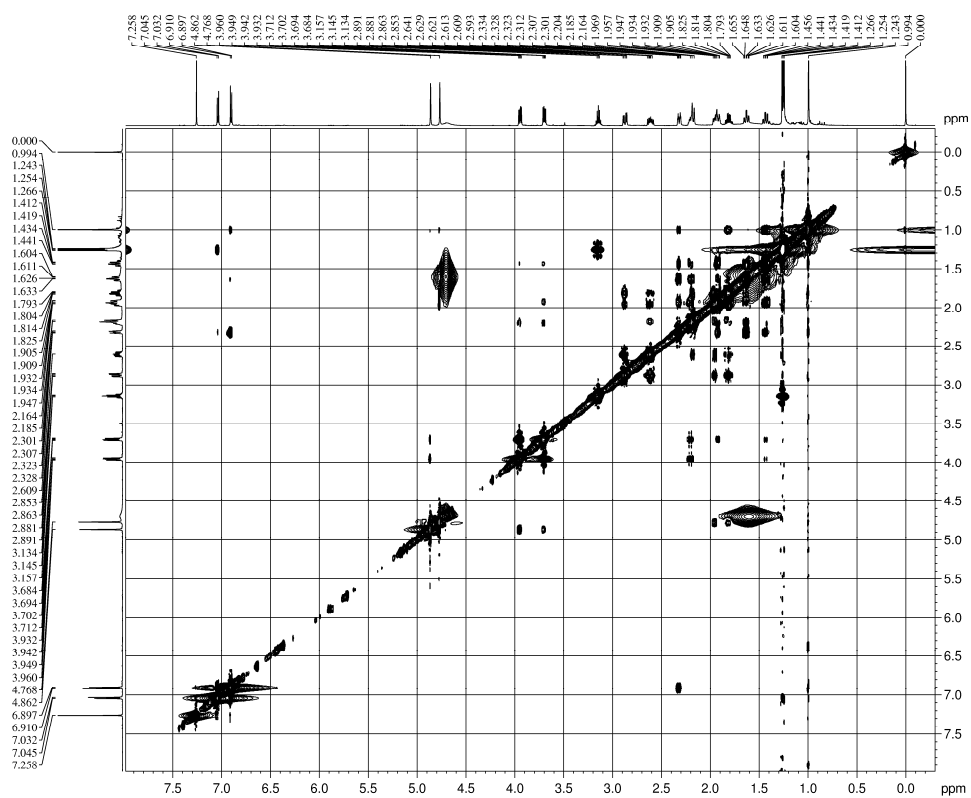


Figure S60. NOESY spectrum of compound 6 in CDCl<sub>3</sub>.

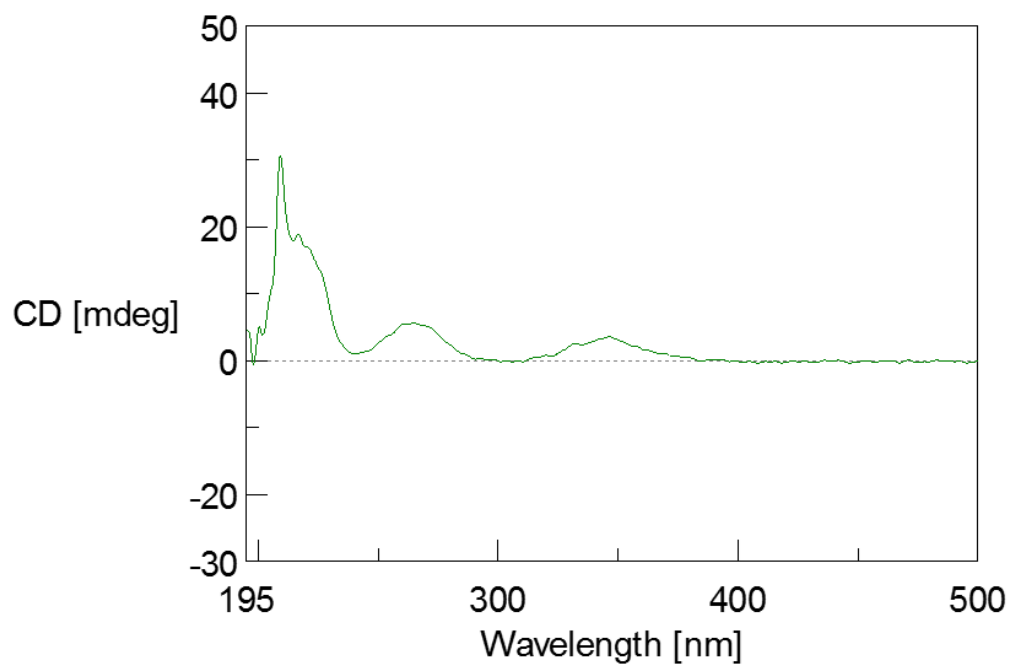


Figure S61. CD spectrum of compound 6 in MeOH.

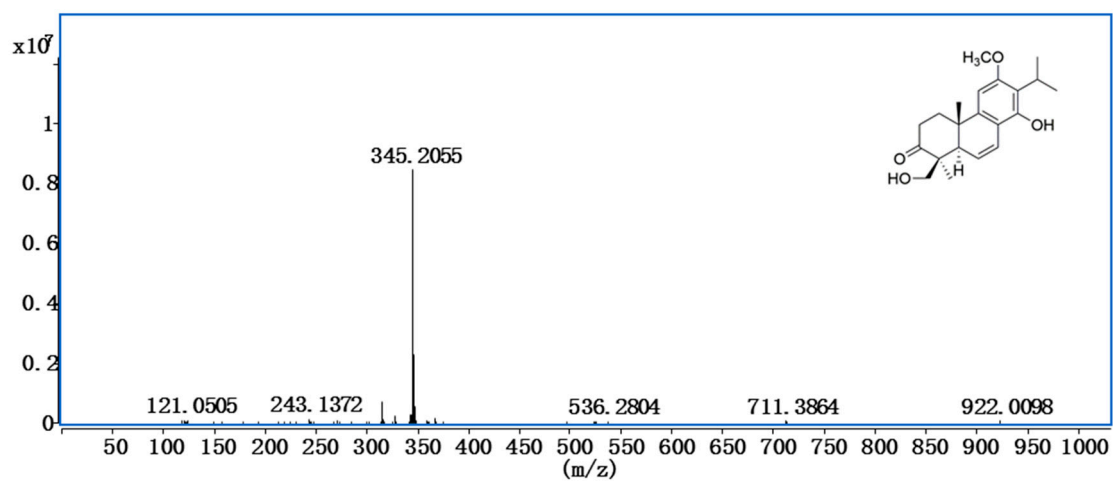


Figure S62. HRESIMS spectrum of compound 7.

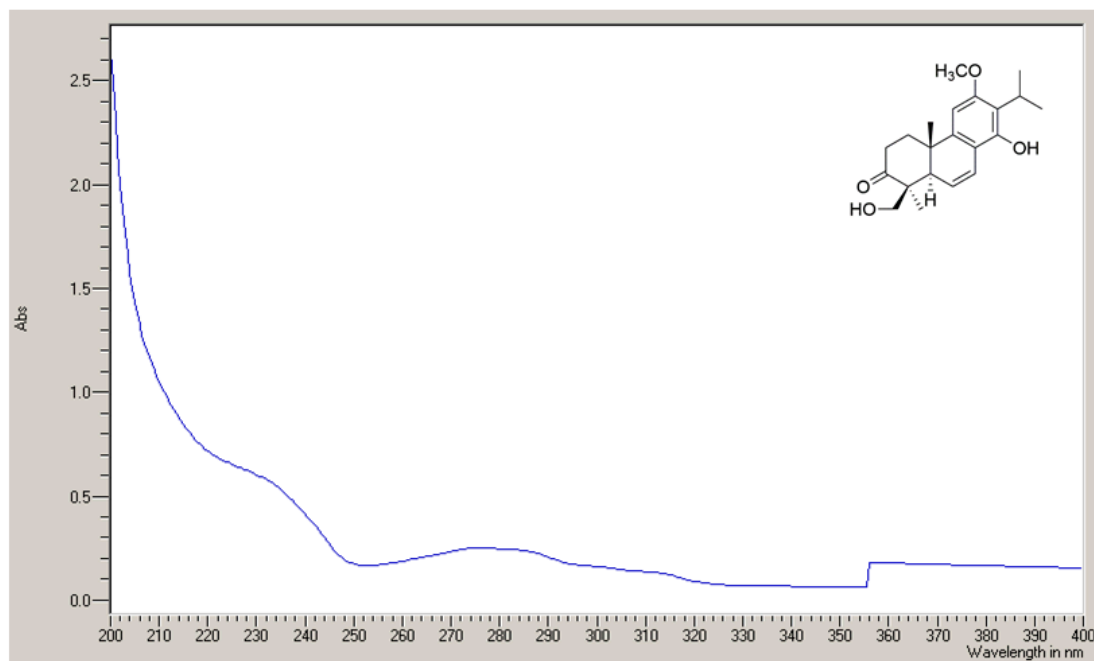


Figure S63. UV spectrum of compound 7 in MeOH.

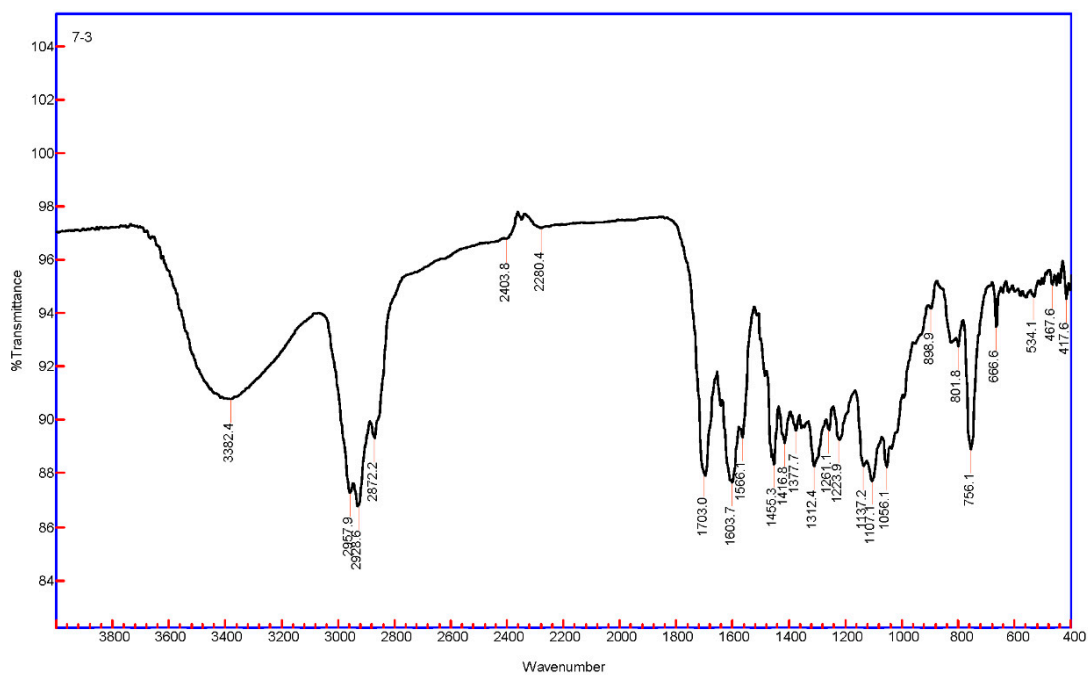


Figure S64. IR spectrum of compound 7.



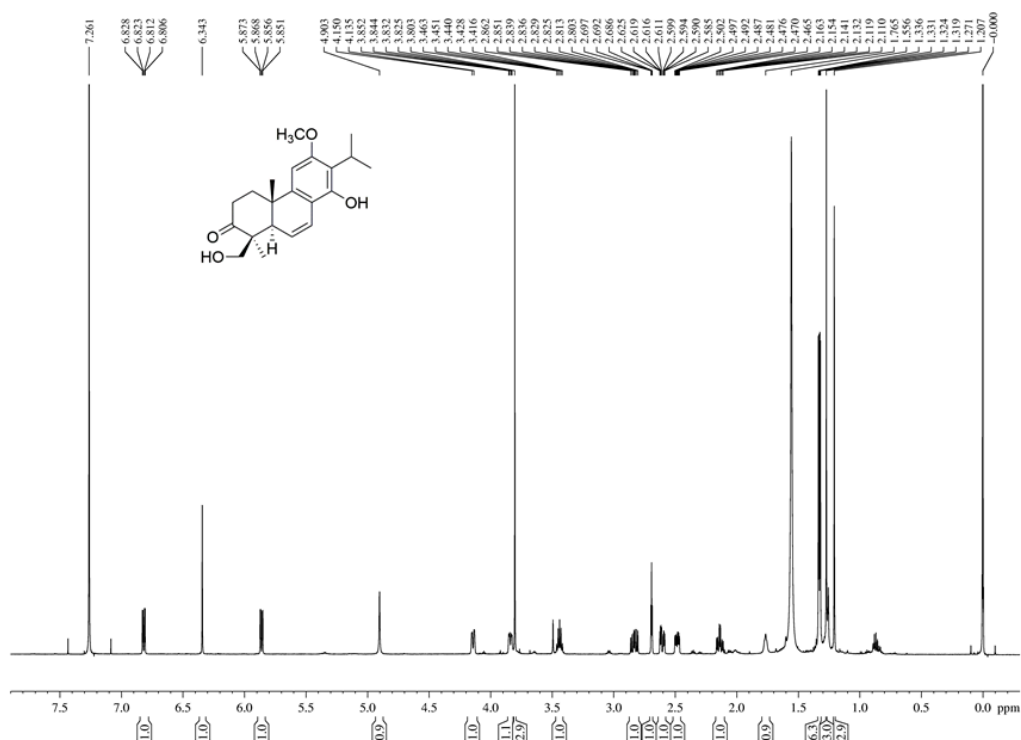


Figure S65. <sup>1</sup>H NMR spectrum of compound 7 in CDCl<sub>3</sub>.

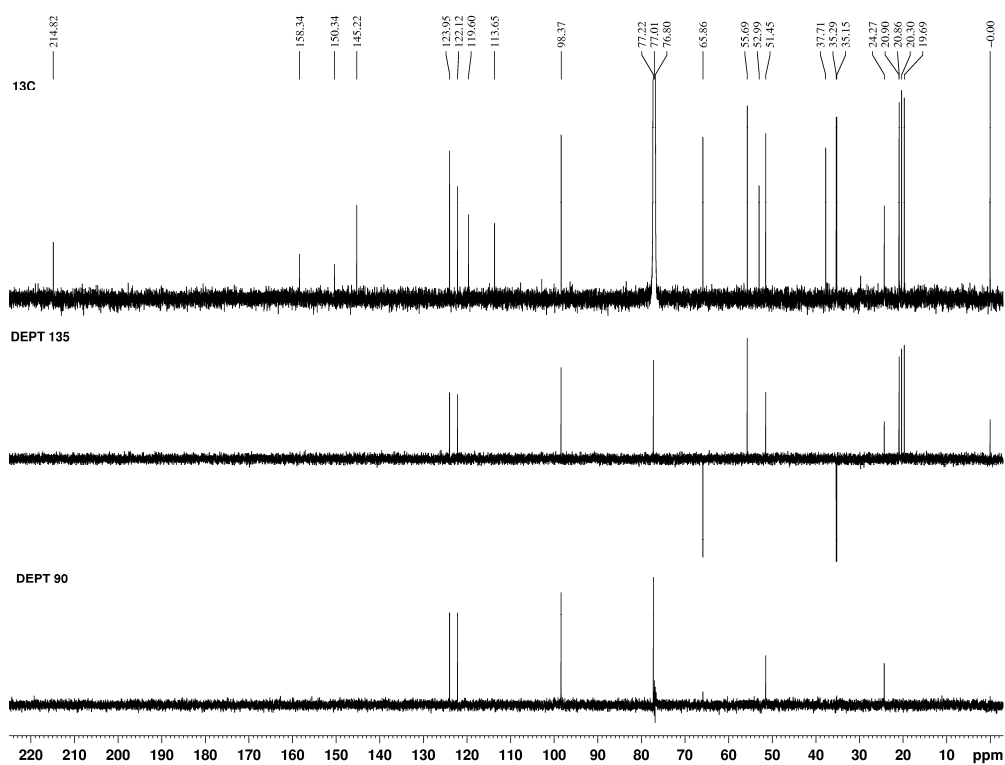


Figure S66. <sup>13</sup>C and DEPT NMR spectra of compound 7 in CDCl<sub>3</sub>.

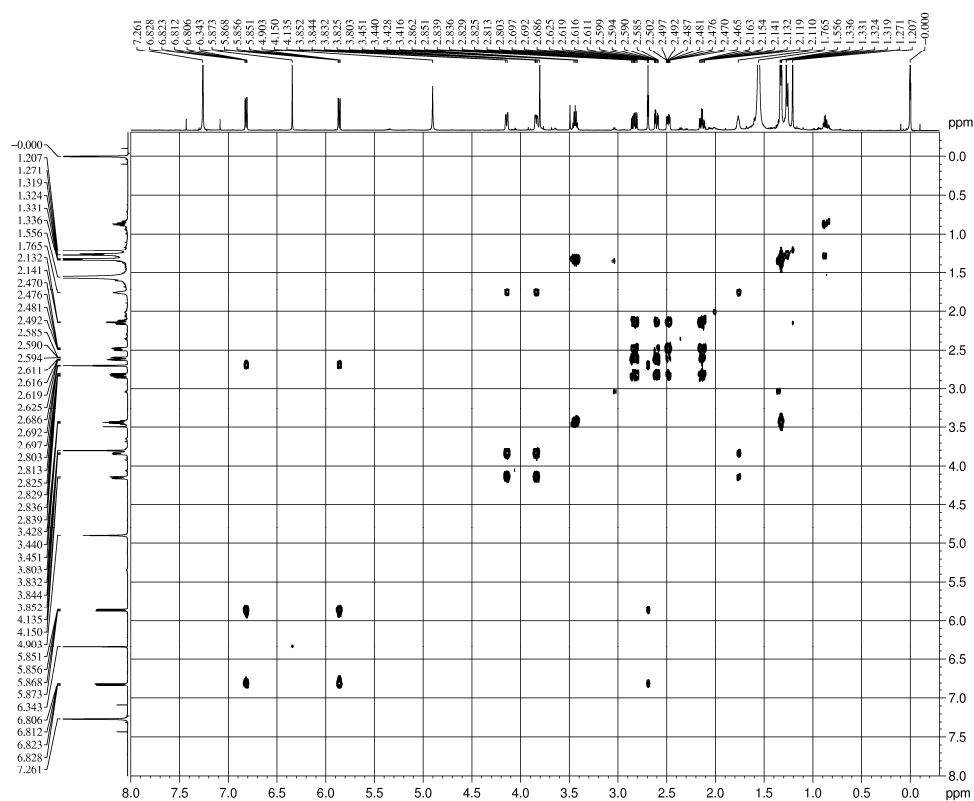


Figure S67.  $^1\text{H}$ - $^1\text{H}$  COSY spectrum of compound 7 in  $\text{CDCl}_3$ .

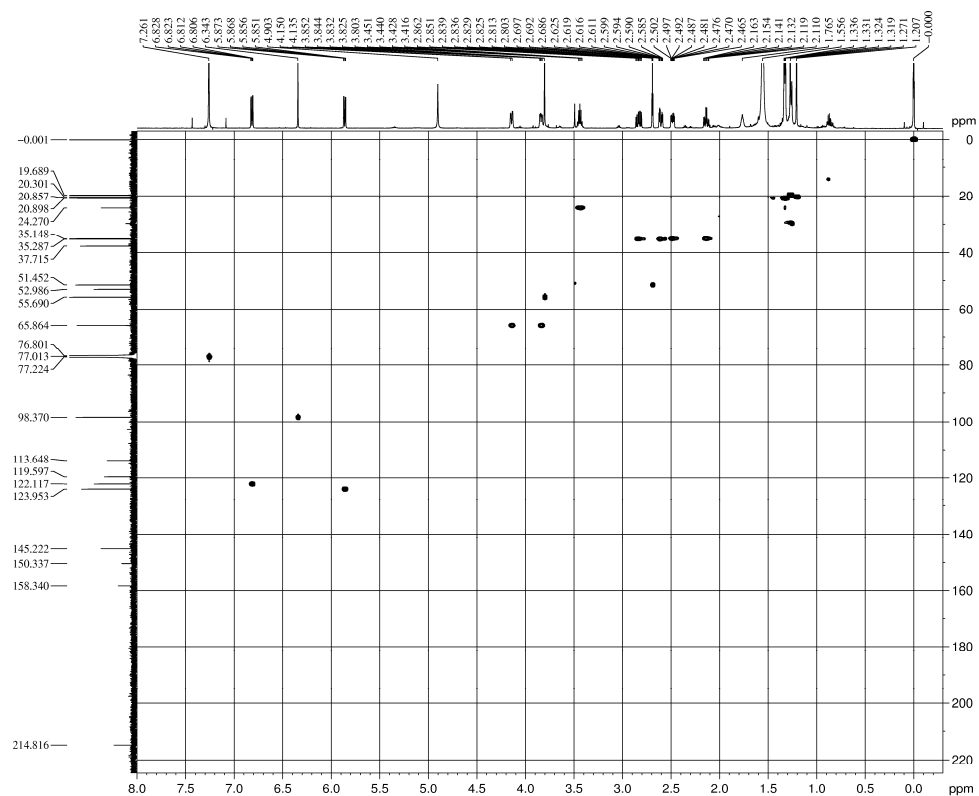


Figure S68. HSQC spectrum of compound 7 in  $\text{CDCl}_3$ .

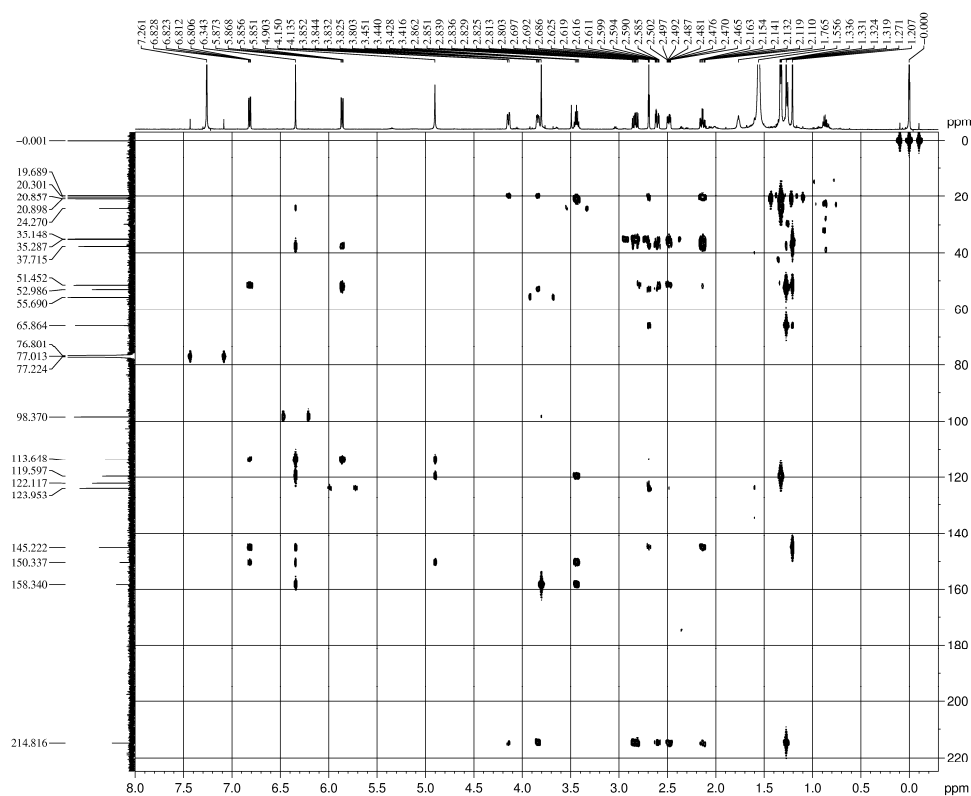


Figure S69. HMBC spectrum of compound 7 in CDCl<sub>3</sub>.

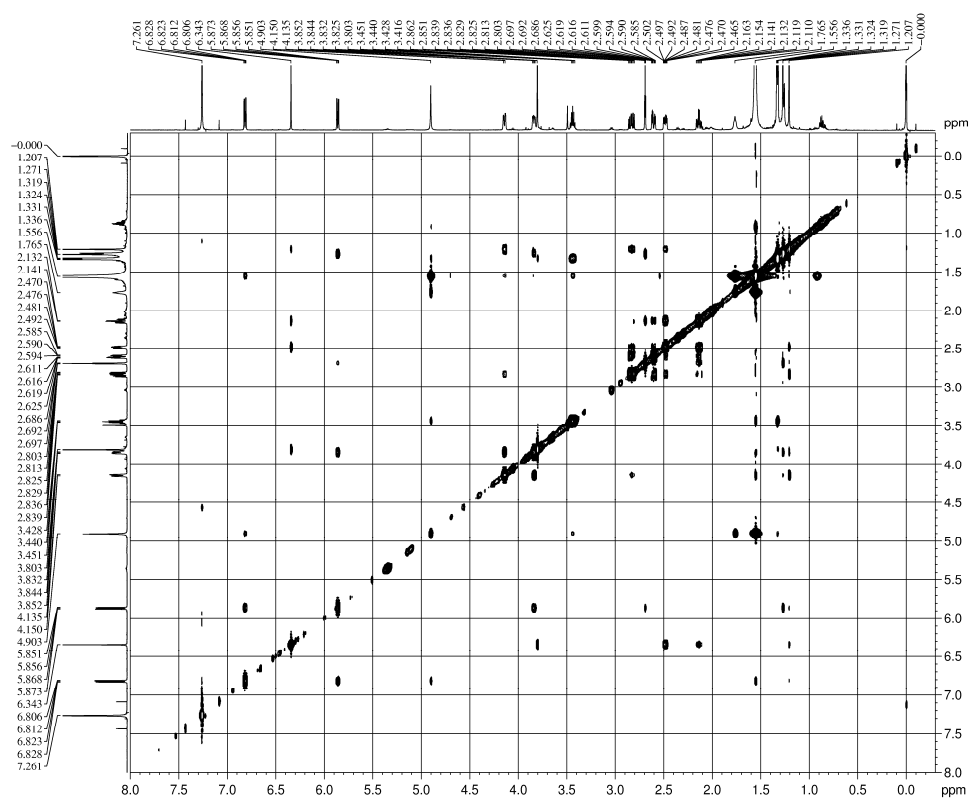


Figure S70. NOESY spectrum of compound 7 in CDCl<sub>3</sub>.

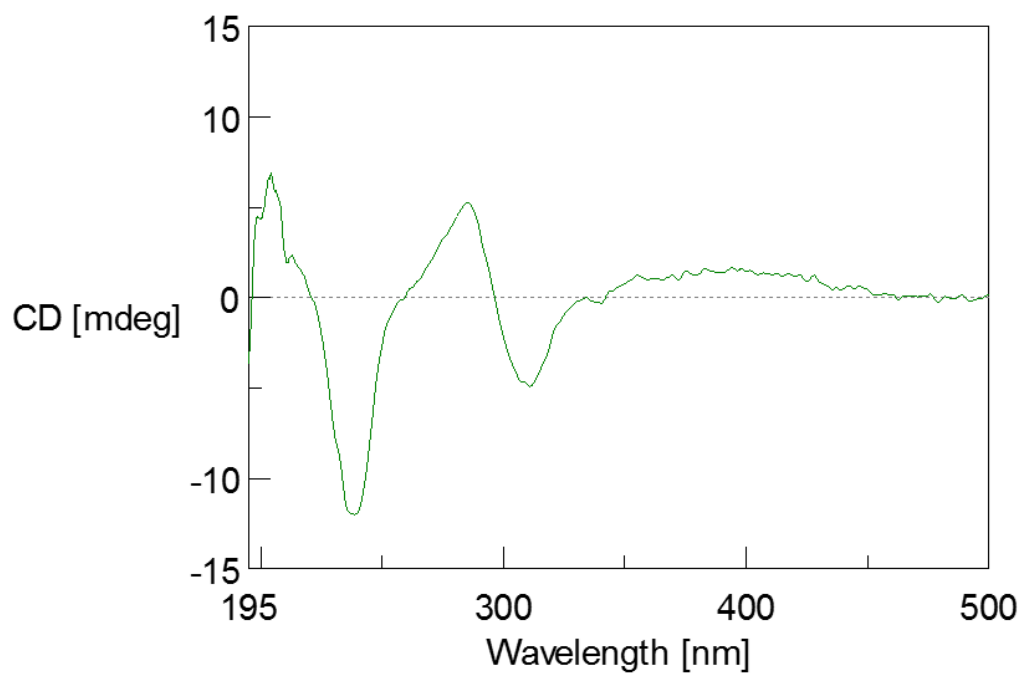


Figure S71. CD spectrum of compound 7 in MeOH.

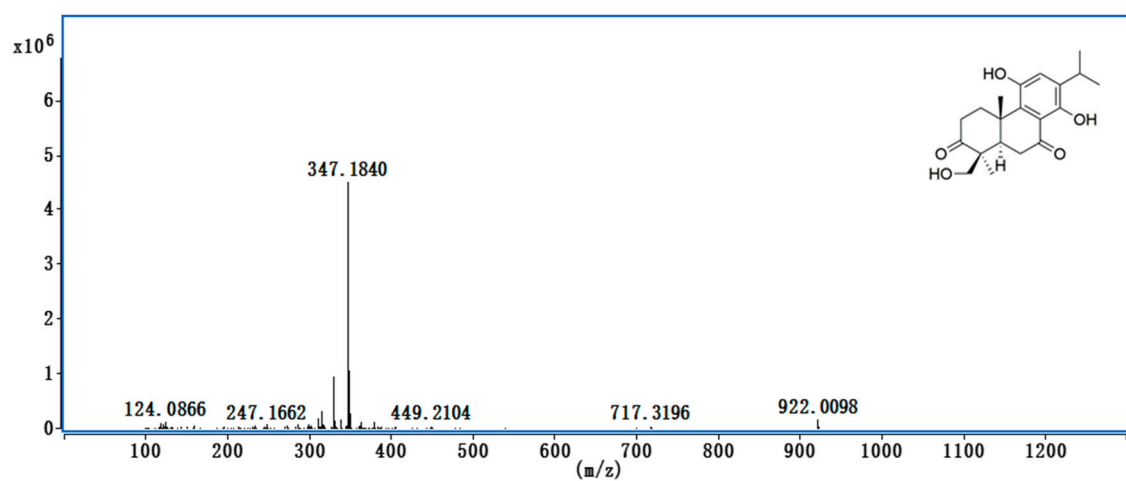


Figure S72. HRESIMS spectrum of compound 8.

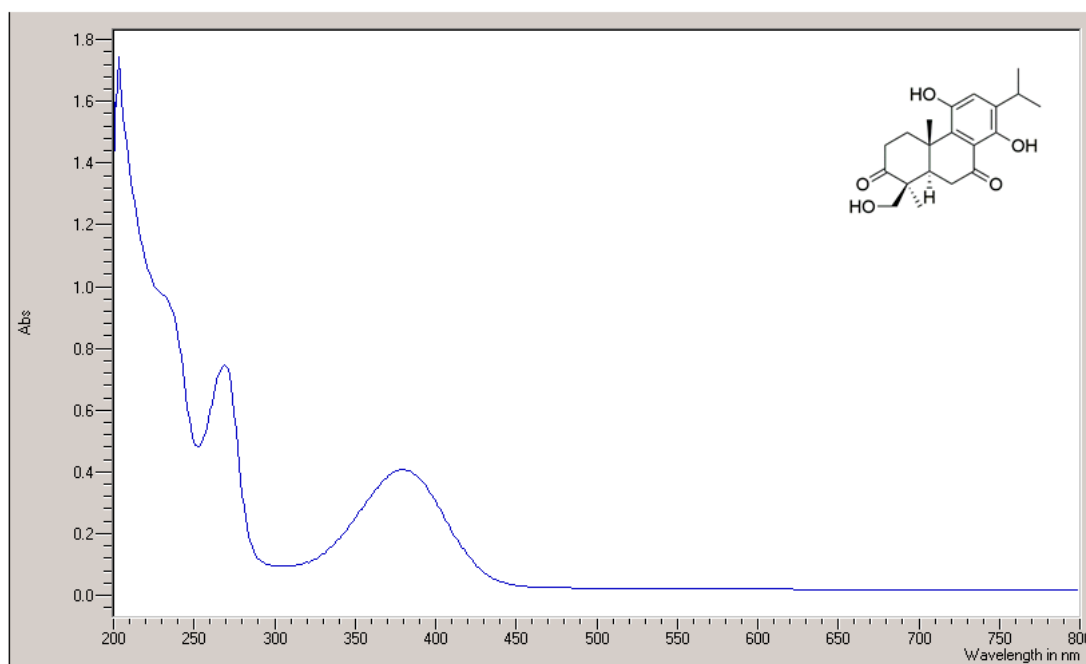


Figure S73. UV spectrum of compound 8 in MeOH.

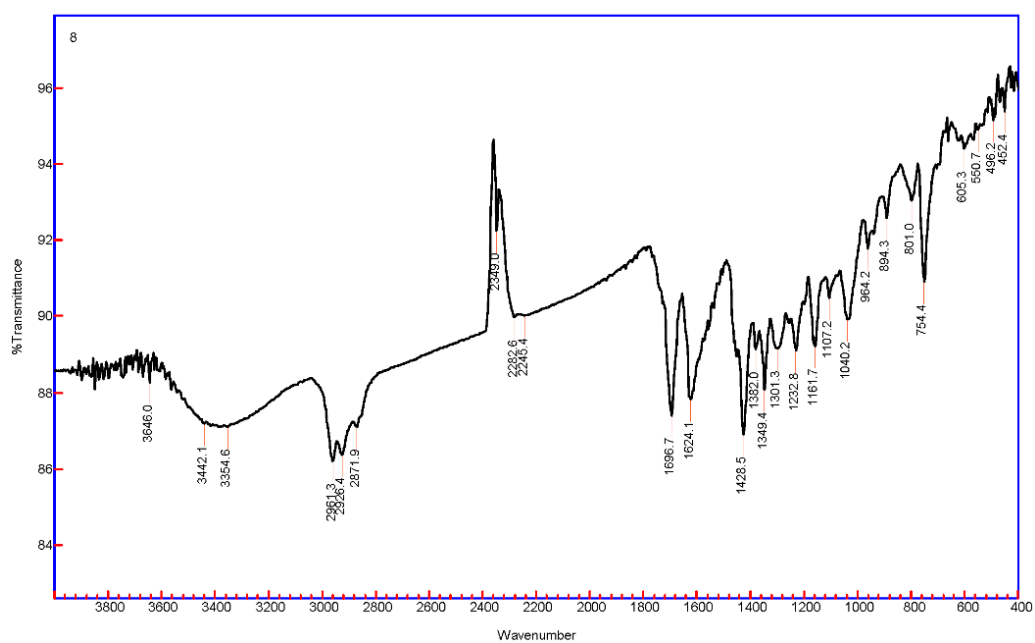


Figure S74. IR spectrum of compound 8.

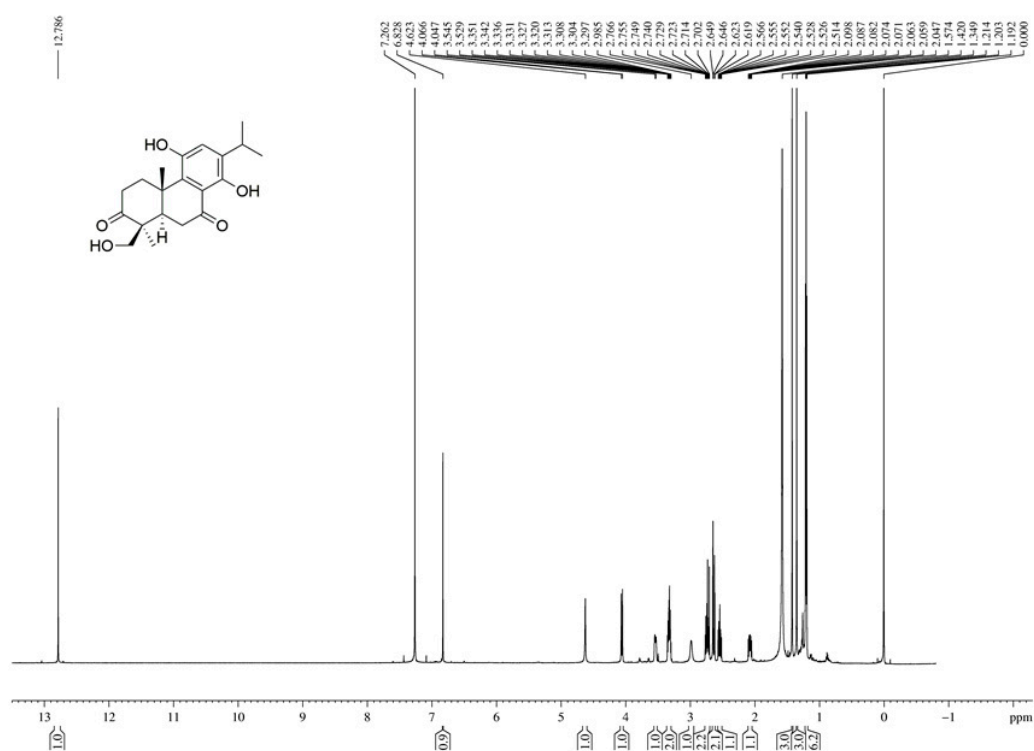


Figure S75. <sup>1</sup>H NMR spectrum of compound 8 in CDCl<sub>3</sub>.

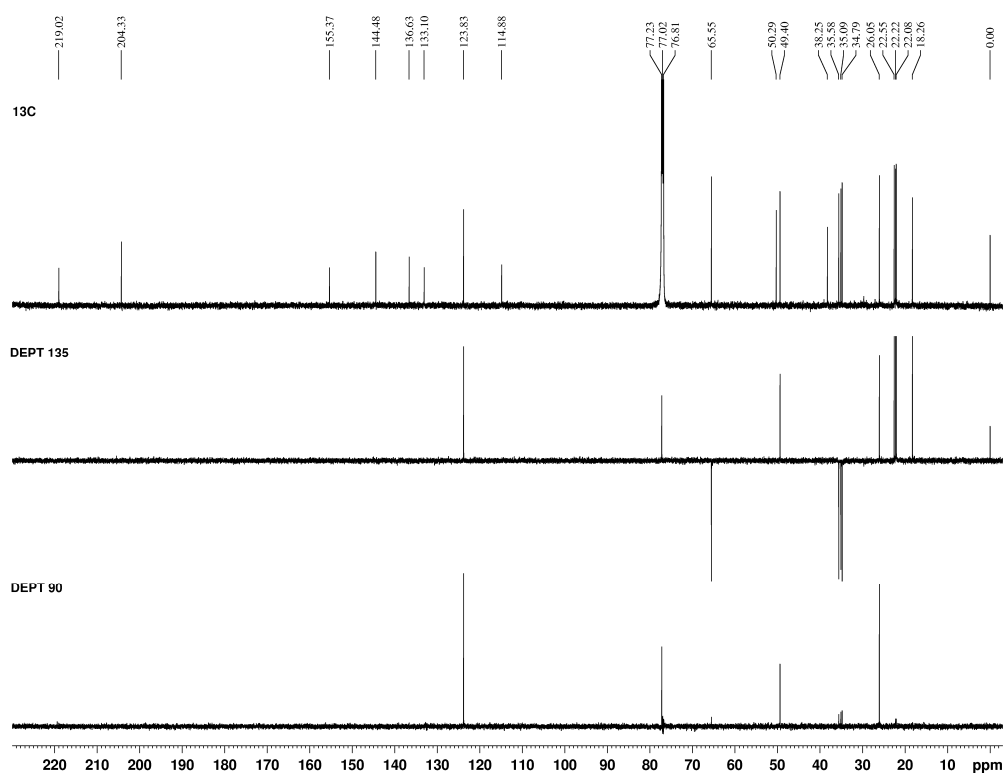


Figure S76. <sup>13</sup>C and DEPT NMR spectra of compound 8 in CDCl<sub>3</sub>.

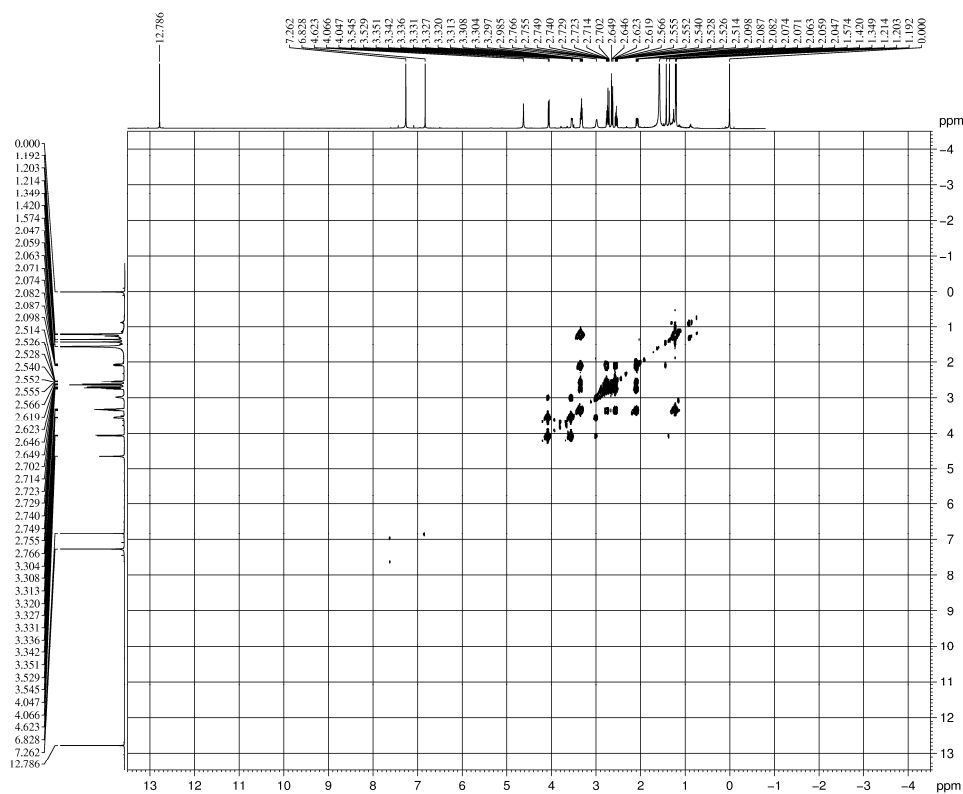


Figure S77.  $^1\text{H}$ - $^1\text{H}$  COSY spectrum of compound 8 in  $\text{CDCl}_3$ .

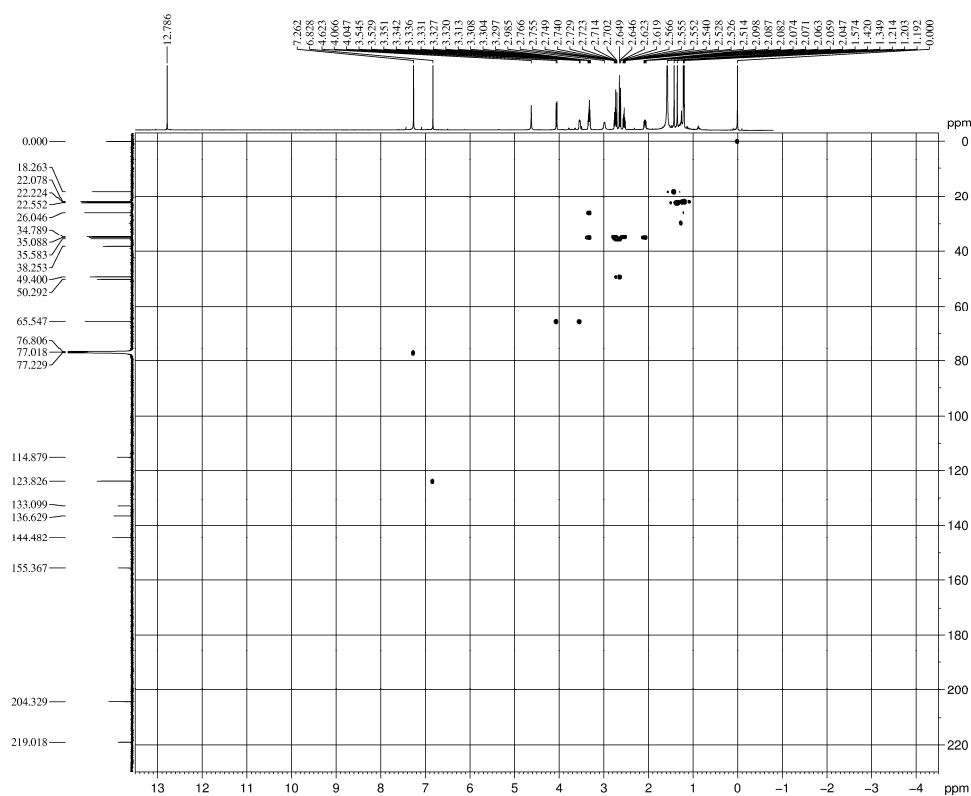


Figure S78. HSQC spectrum of compound 8 in  $\text{CDCl}_3$ .

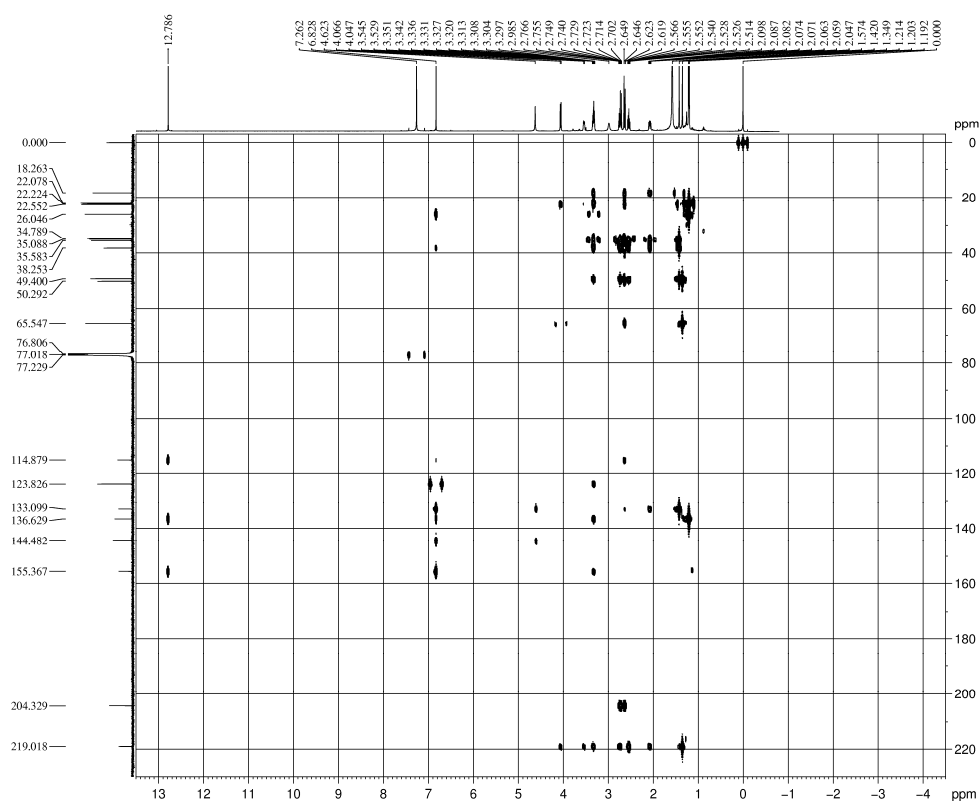


Figure S79. HMBC spectrum of compound 8 in CDCl<sub>3</sub>.

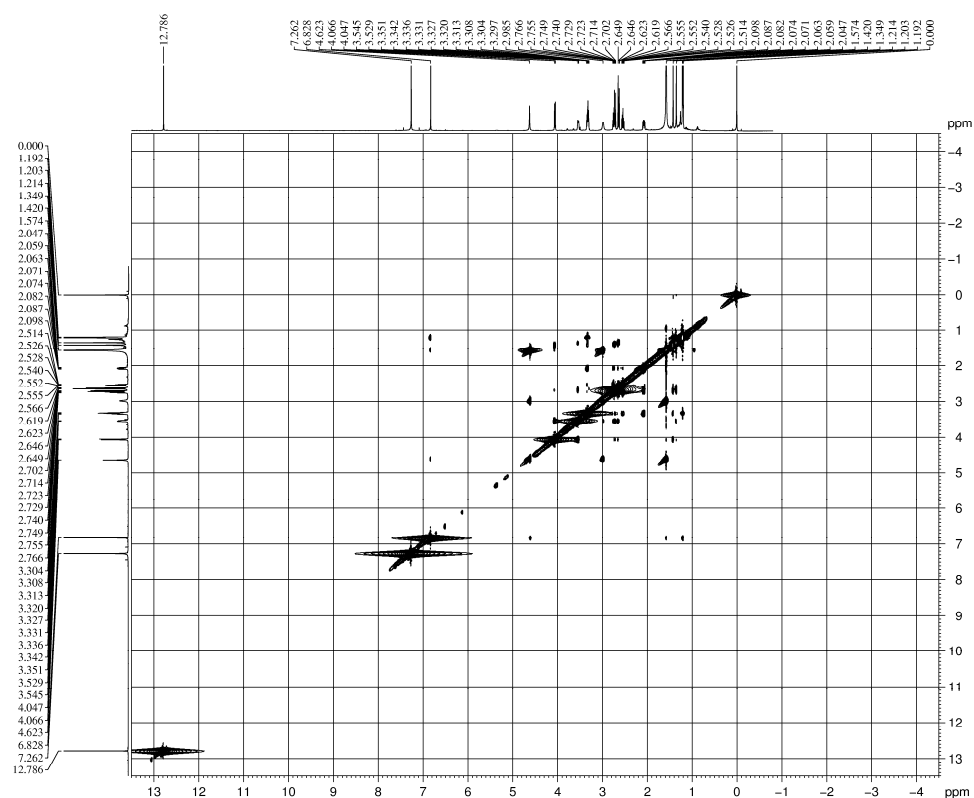


Figure S80. NOESY spectrum of compound 8 in CDCl<sub>3</sub>.



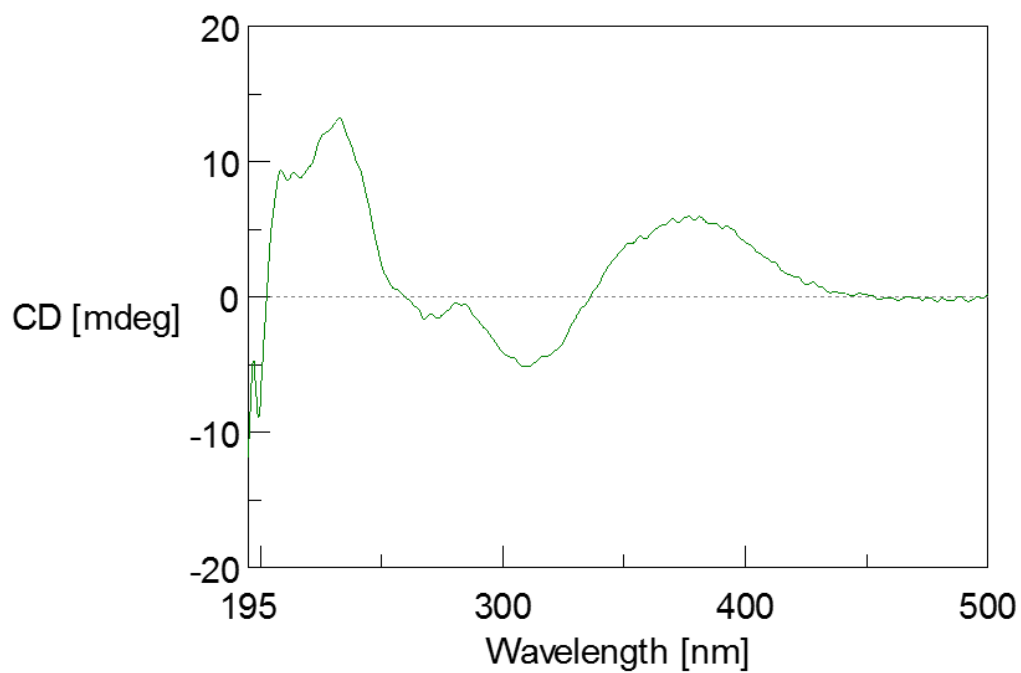


Figure S81. CD spectrum of compound 8 in MeOH.

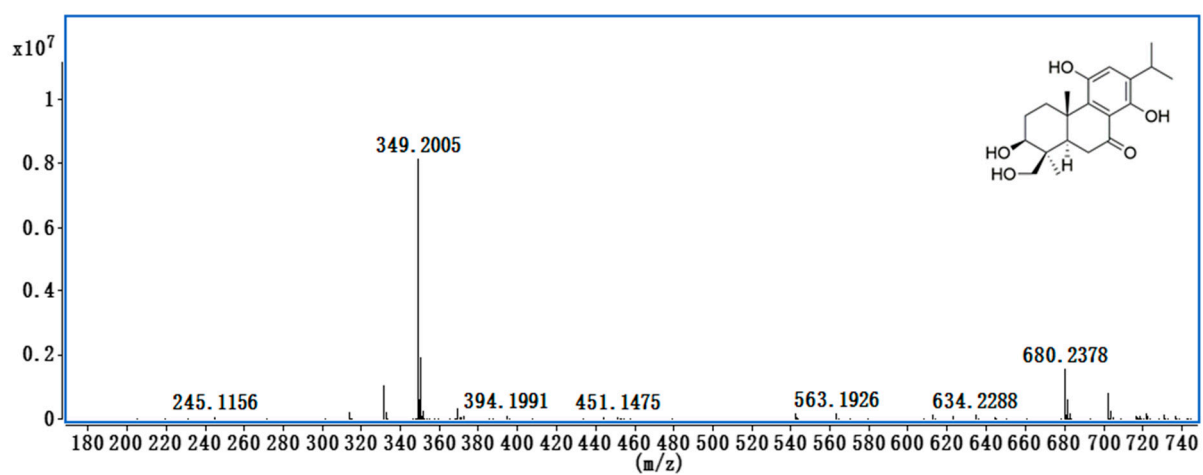


Figure S82. HRESIMS spectrum of compound 9.

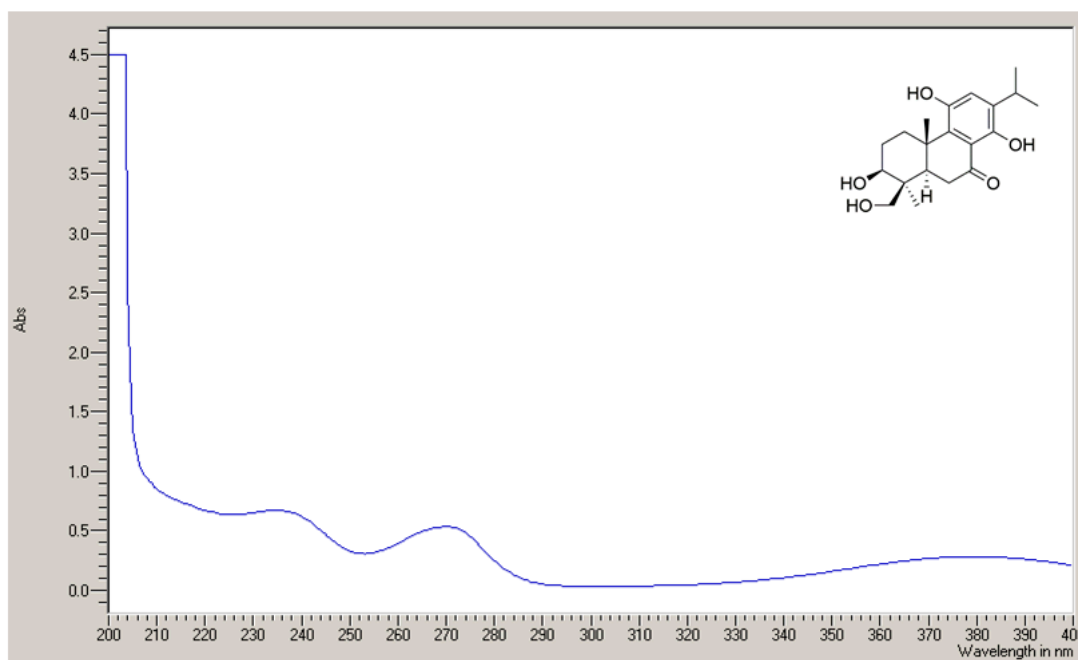


Figure S83. UV spectrum of compound 9 in MeOH.

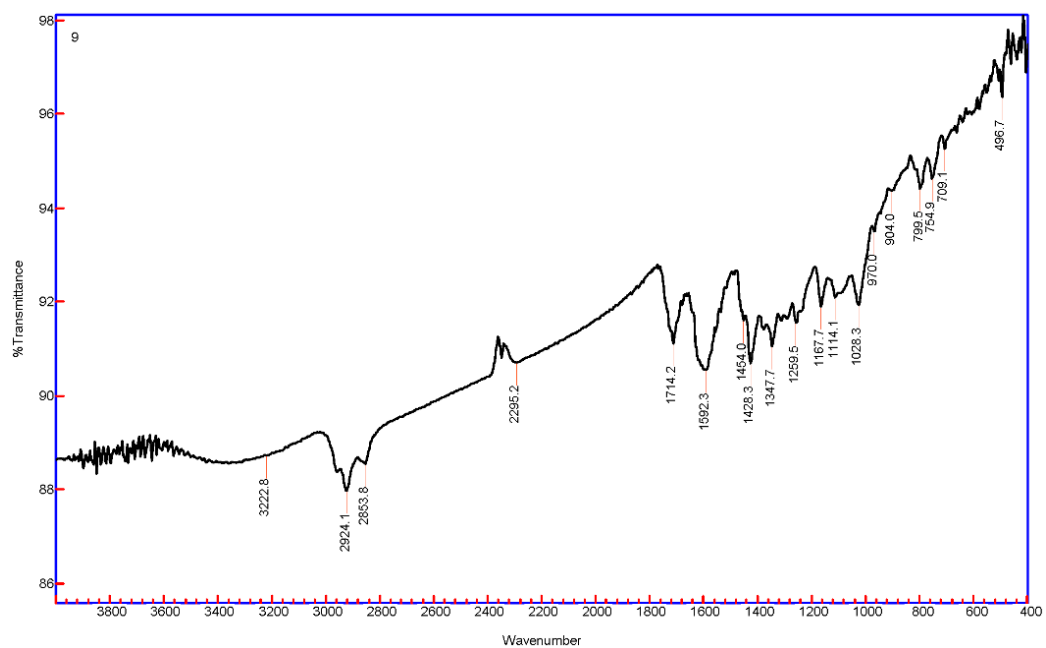


Figure S84. IR spectrum of compound 9.

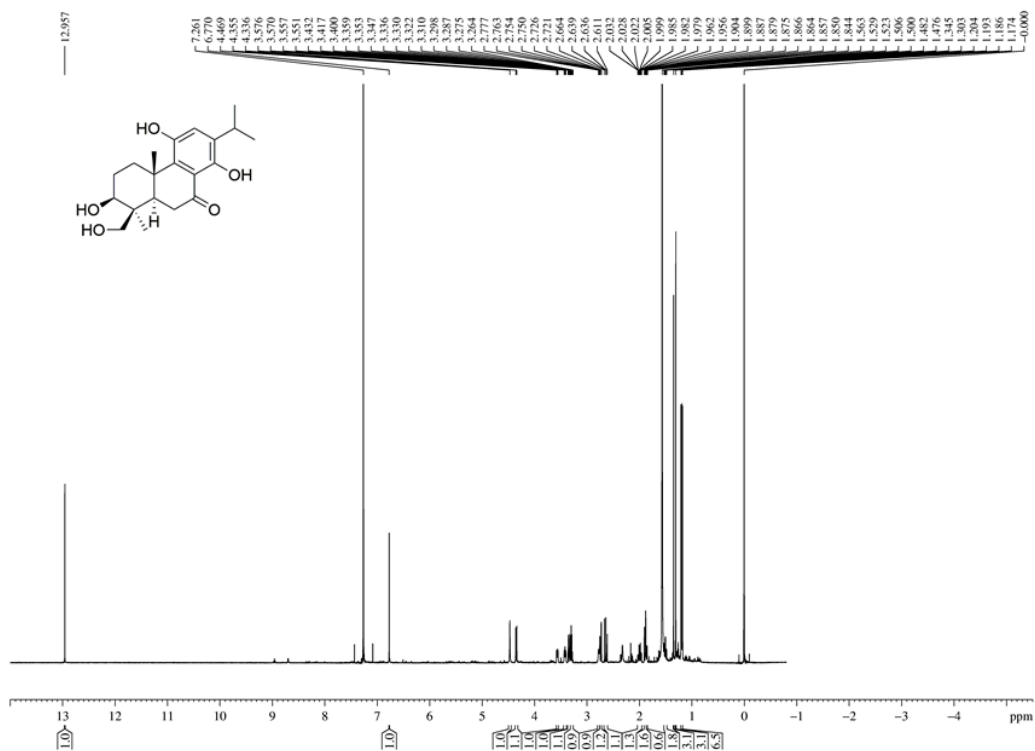


Figure S85. <sup>1</sup>H NMR spectrum of compound 9 in CDCl<sub>3</sub>.

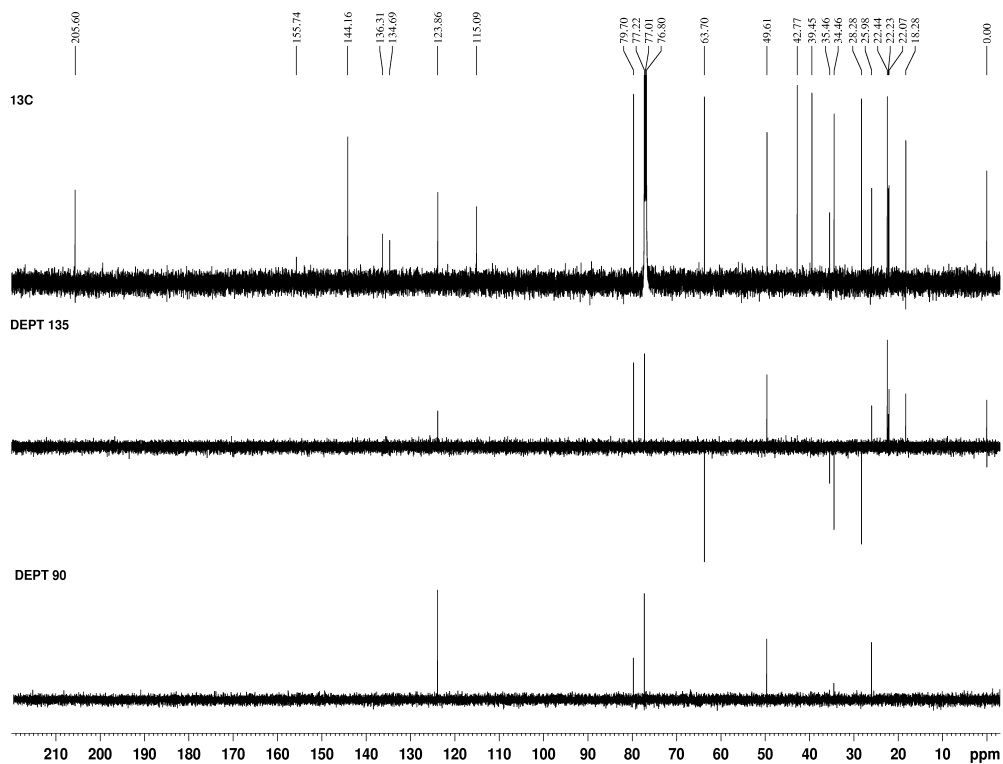


Figure S86. <sup>13</sup>C and DEPT NMR spectra of compound 9 in CDCl<sub>3</sub>.

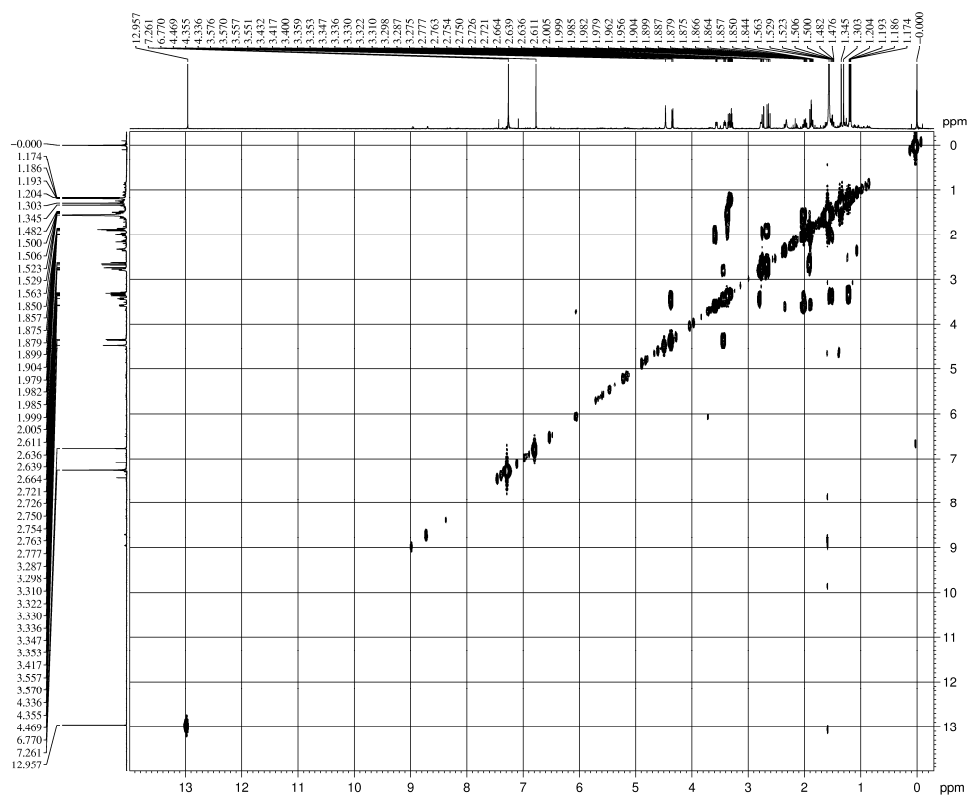


Figure S87.  $^1\text{H}$ - $^1\text{H}$  COSY spectrum of compound 9 in  $\text{CDCl}_3$ .

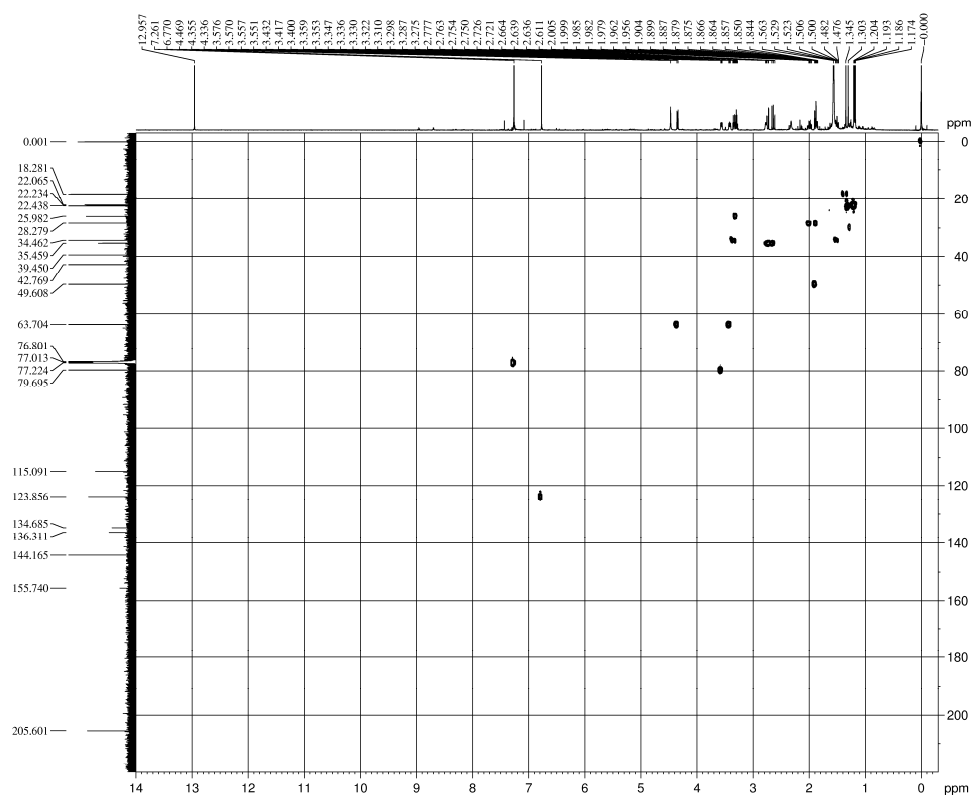


Figure S88. HSQC spectrum of compound 9 in  $\text{CDCl}_3$ .

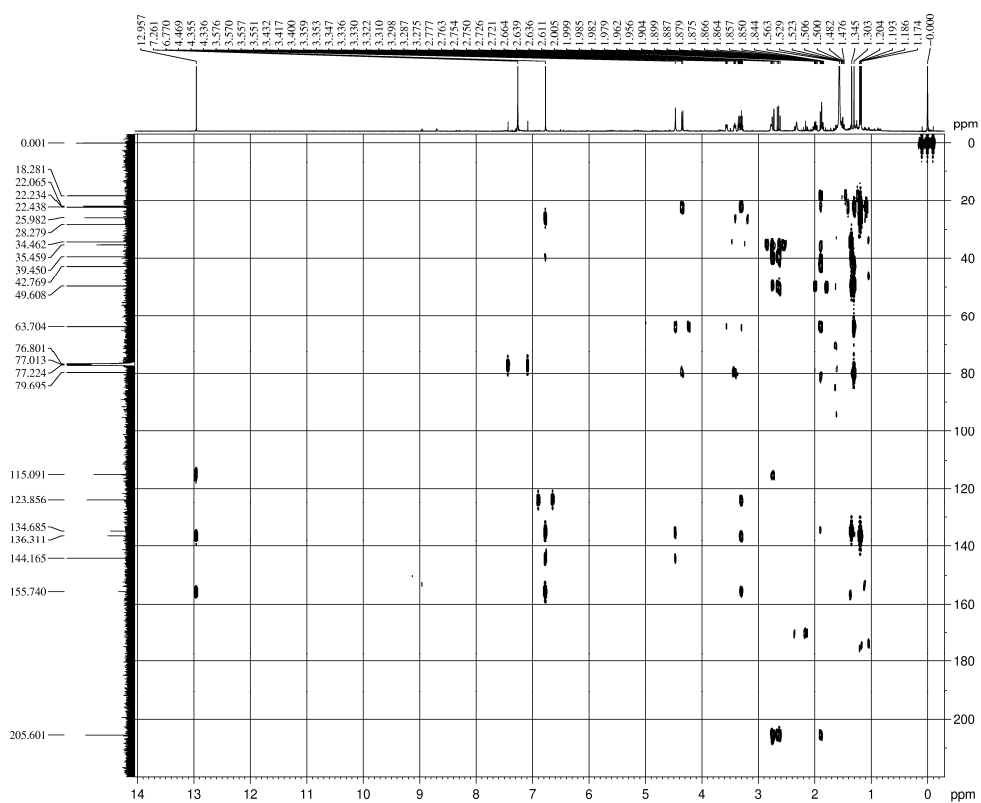


Figure S89. HMBC spectrum of compound 9 in CDCl<sub>3</sub>.

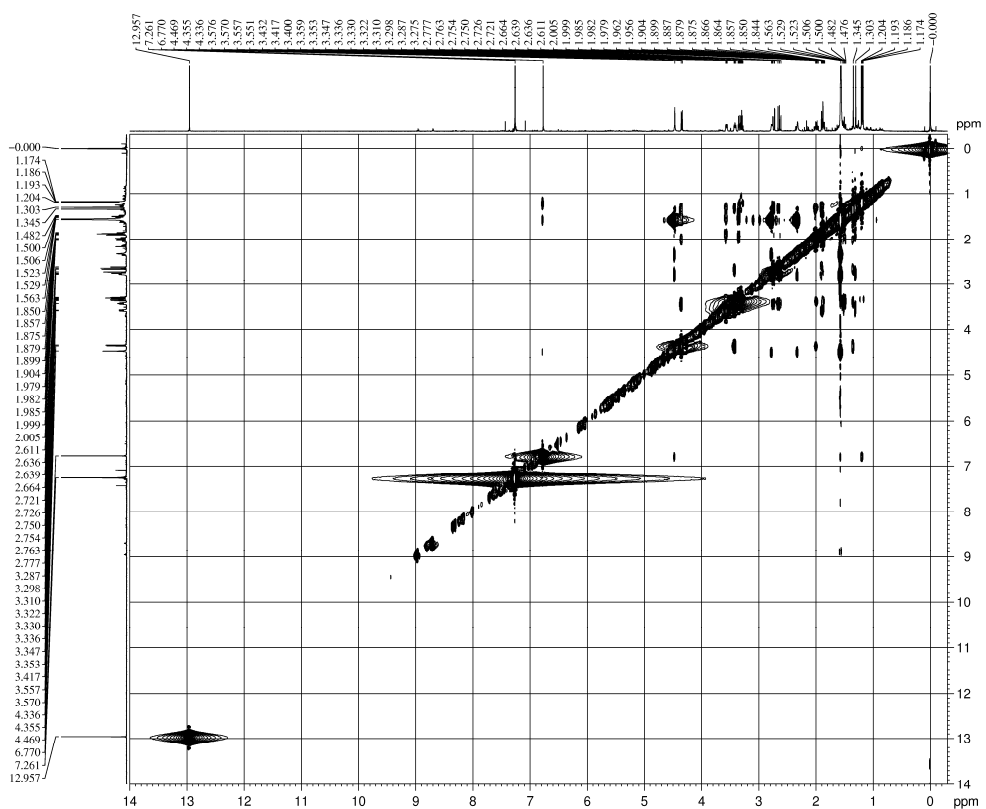


Figure S90. NOESY spectrum of compound 9 in CDCl<sub>3</sub>.

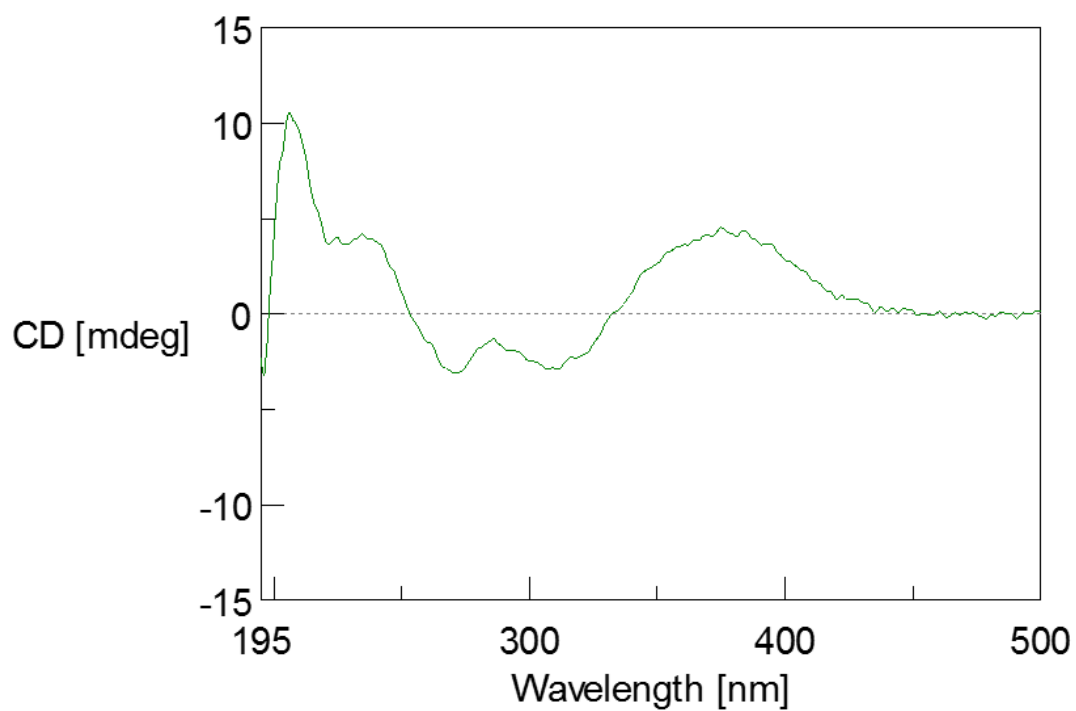


Figure S91. CD spectrum of compound 9 in MeOH.

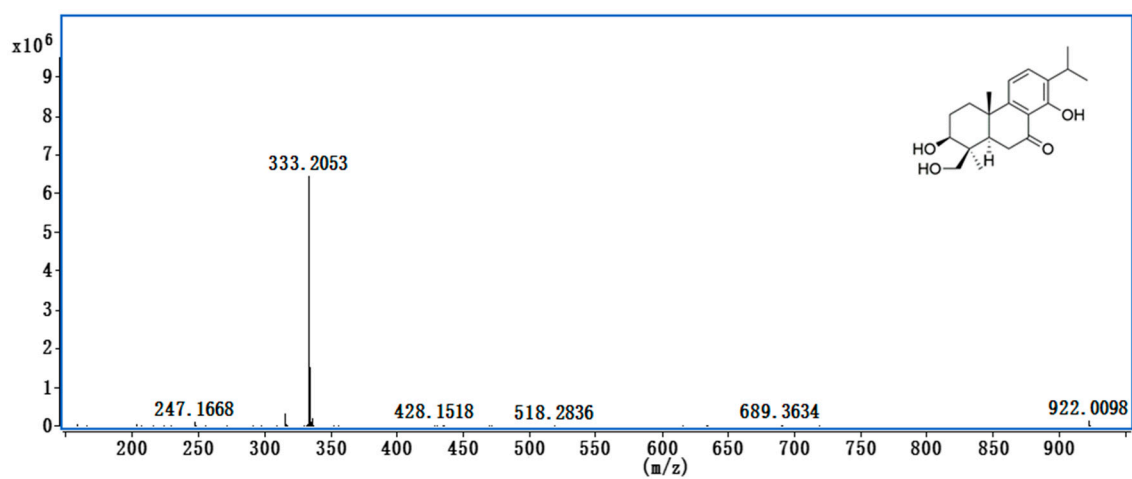


Figure S92. HRESIMS spectrum of compound 10.

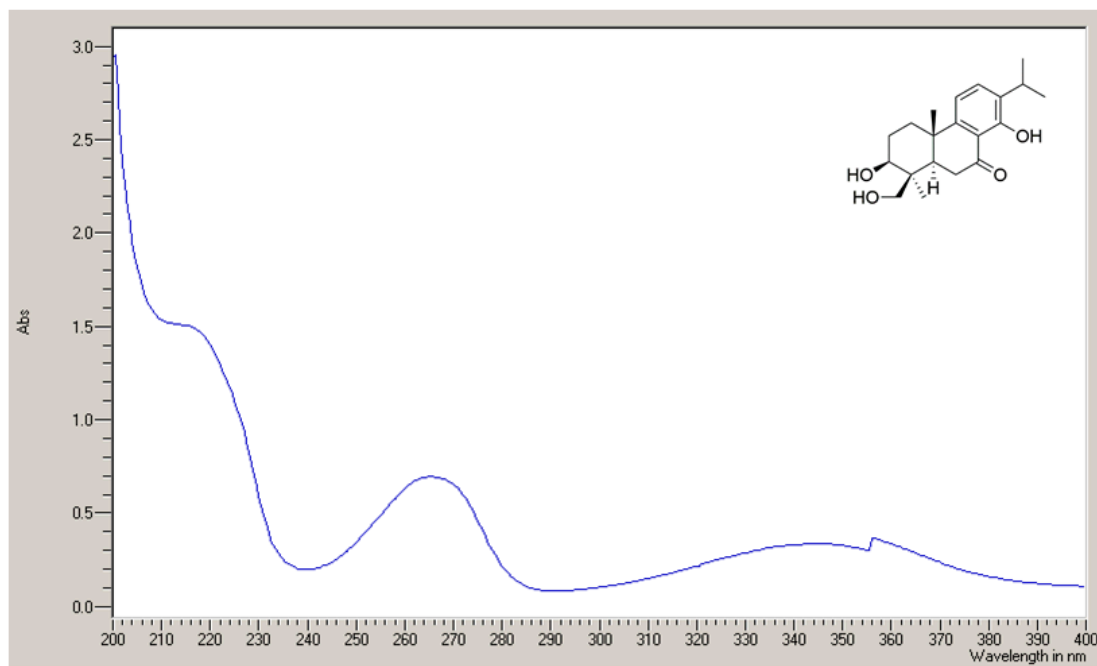


Figure S93. UV spectrum of compound 10 in MeOH.

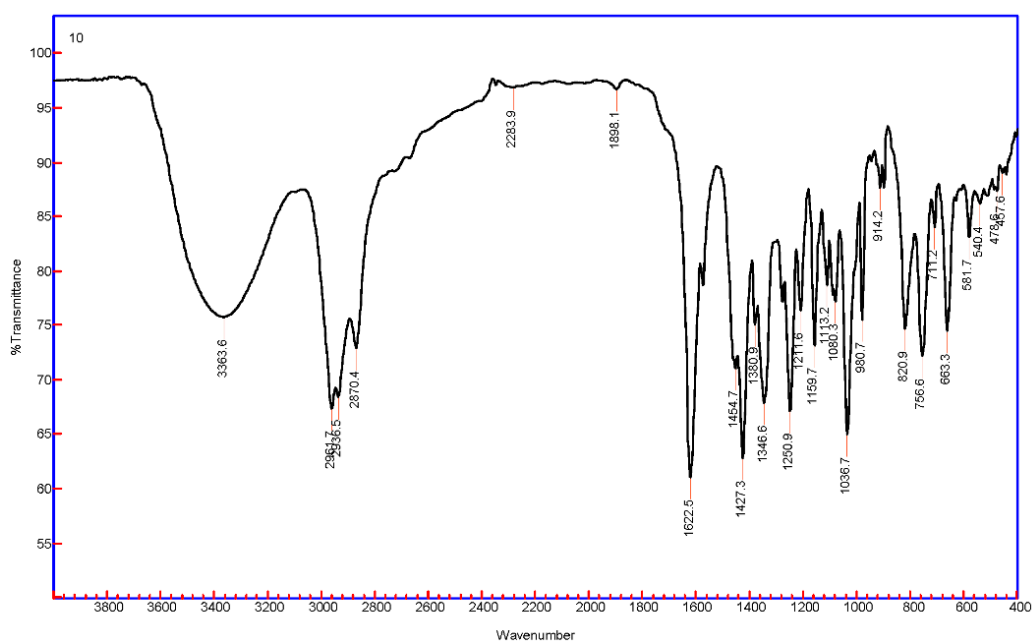


Figure S94. IR spectrum of compound 10.

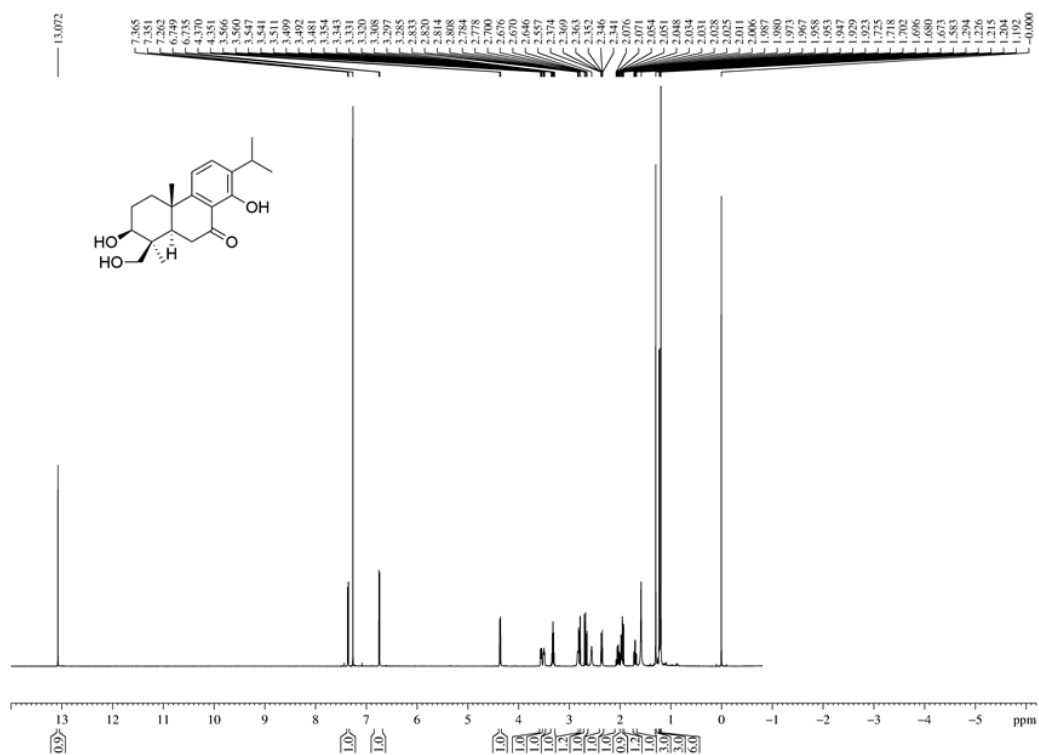


Figure S95. <sup>1</sup>H NMR spectrum of compound 10 in CDCl<sub>3</sub>.

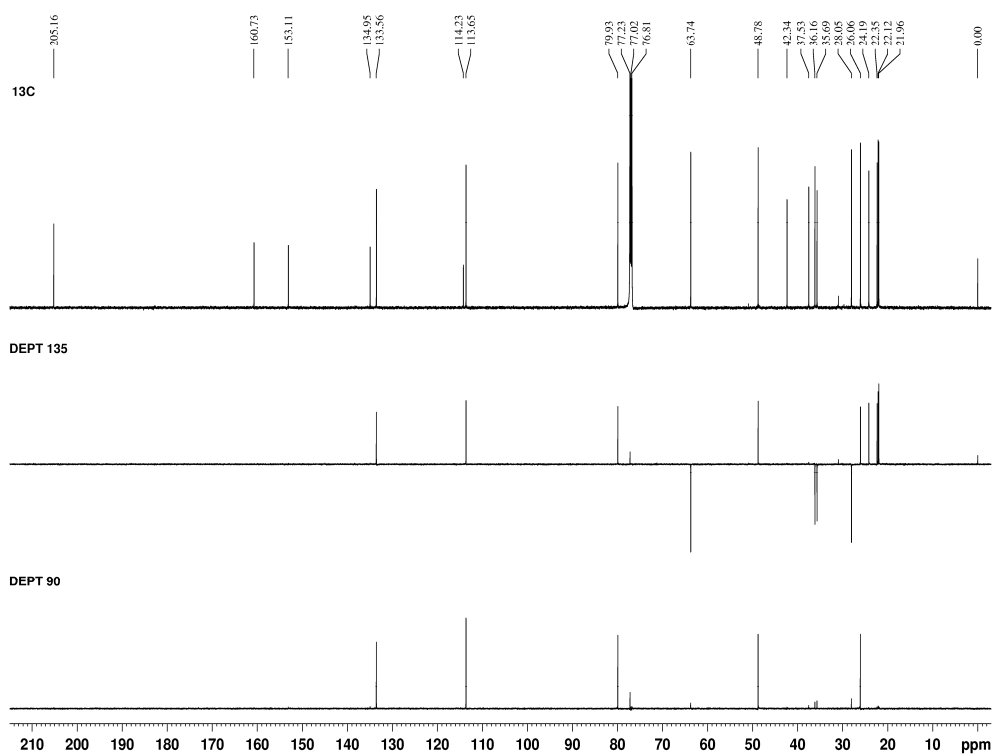


Figure S96. <sup>13</sup>C and DEPT NMR spectra of compound 10 in CDCl<sub>3</sub>.



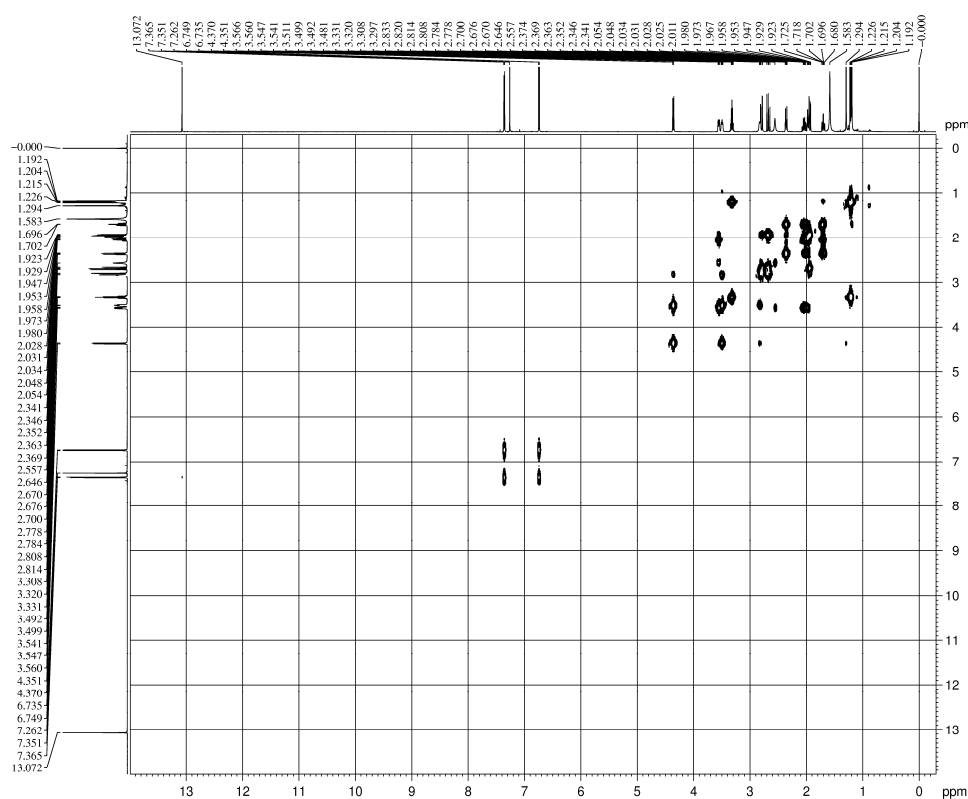


Figure S97. <sup>1</sup>H-<sup>1</sup>H COSY spectrum of compound 10 in CDCl<sub>3</sub>.

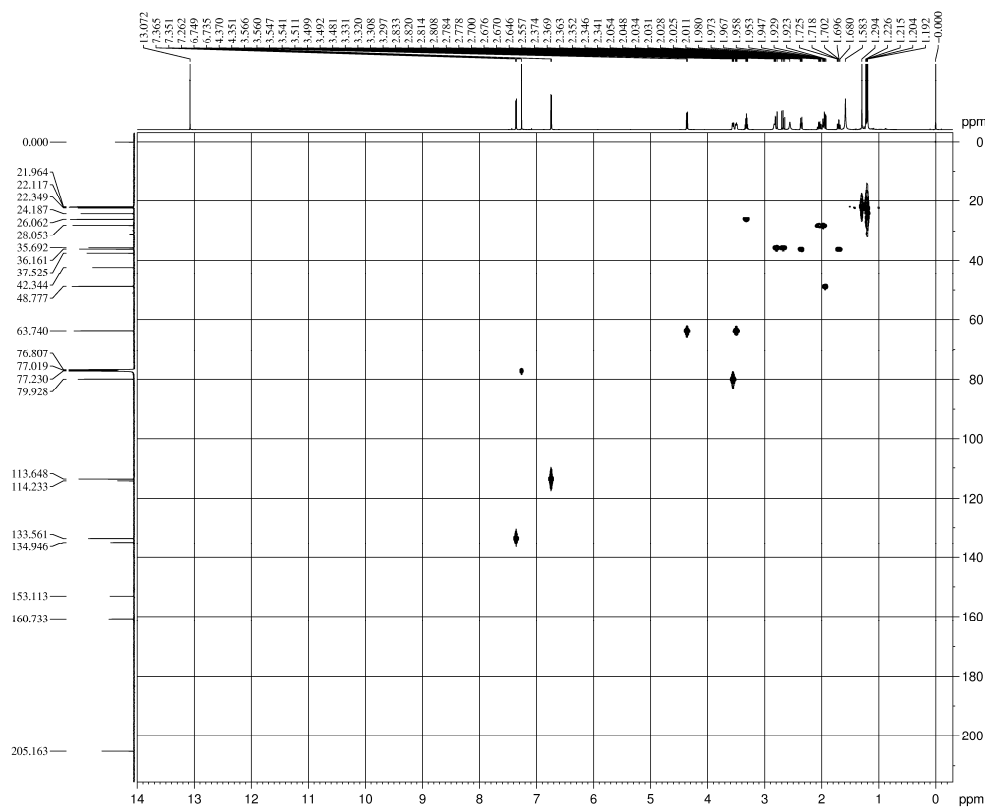


Figure S98. HSQC spectrum of compound 10 in CDCl<sub>3</sub>.

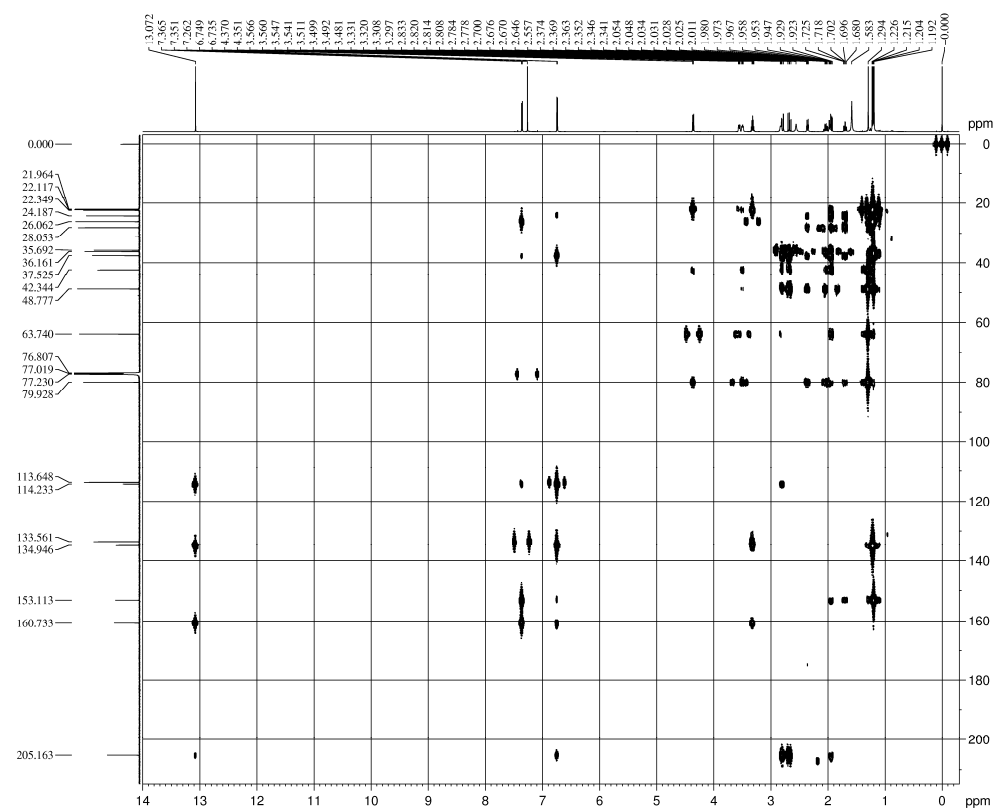


Figure S99. HMBC spectrum of compound 10 in CDCl<sub>3</sub>.

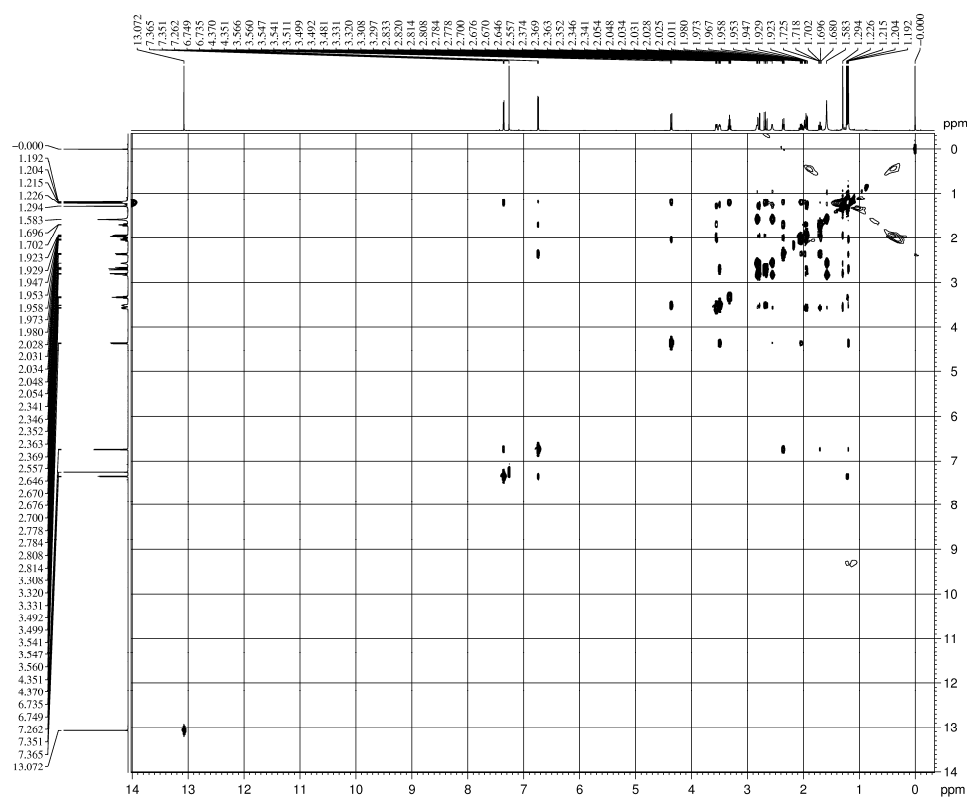


Figure S100. NOESY spectrum of compound 10 in CDCl<sub>3</sub>.

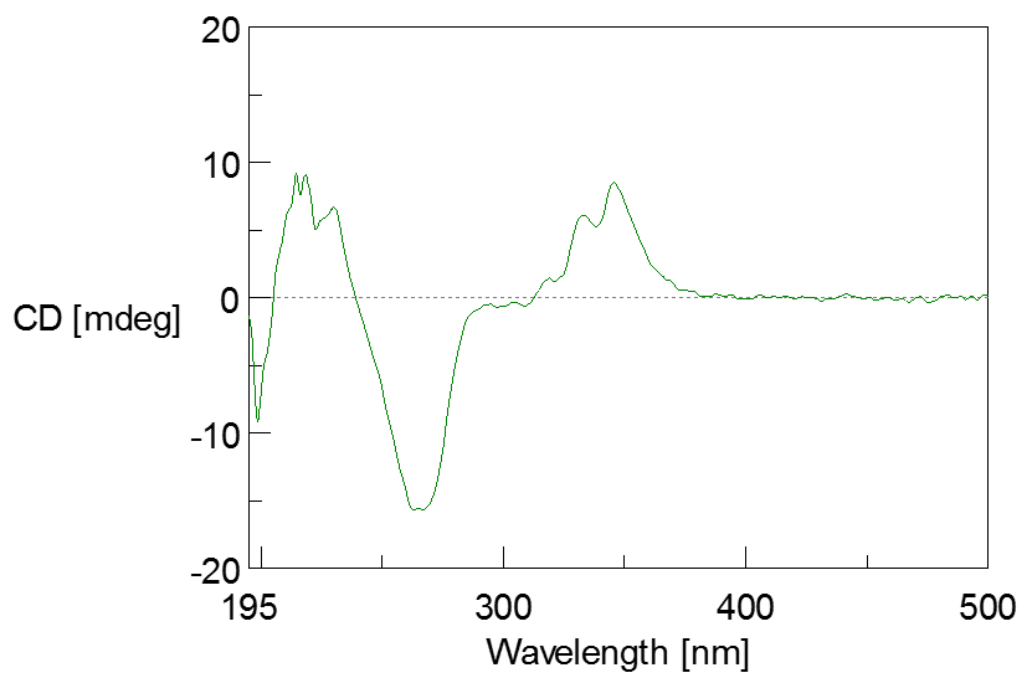


Figure S101. CD spectrum of compound 10 in MeOH.

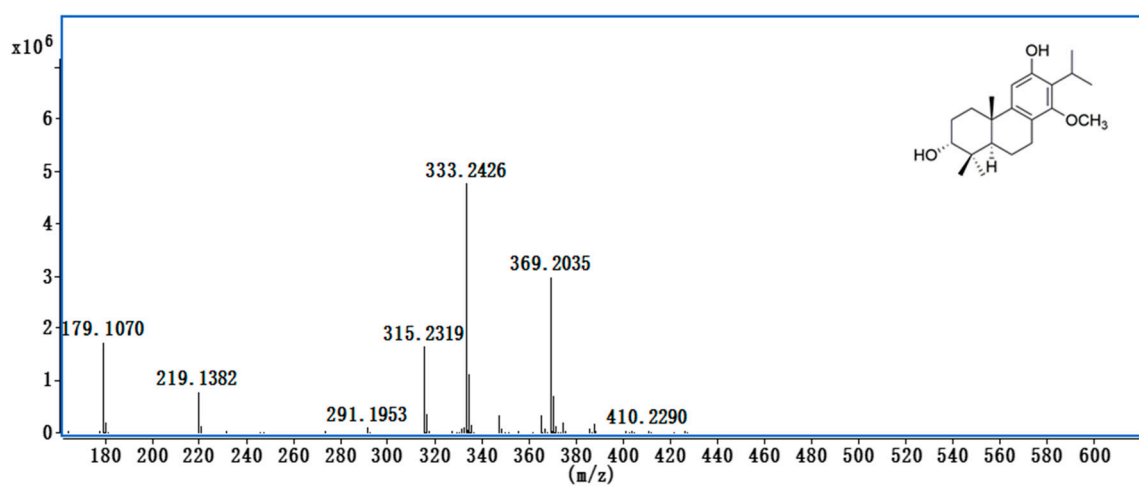


Figure S102. HRESIMS spectrum of compound 11.

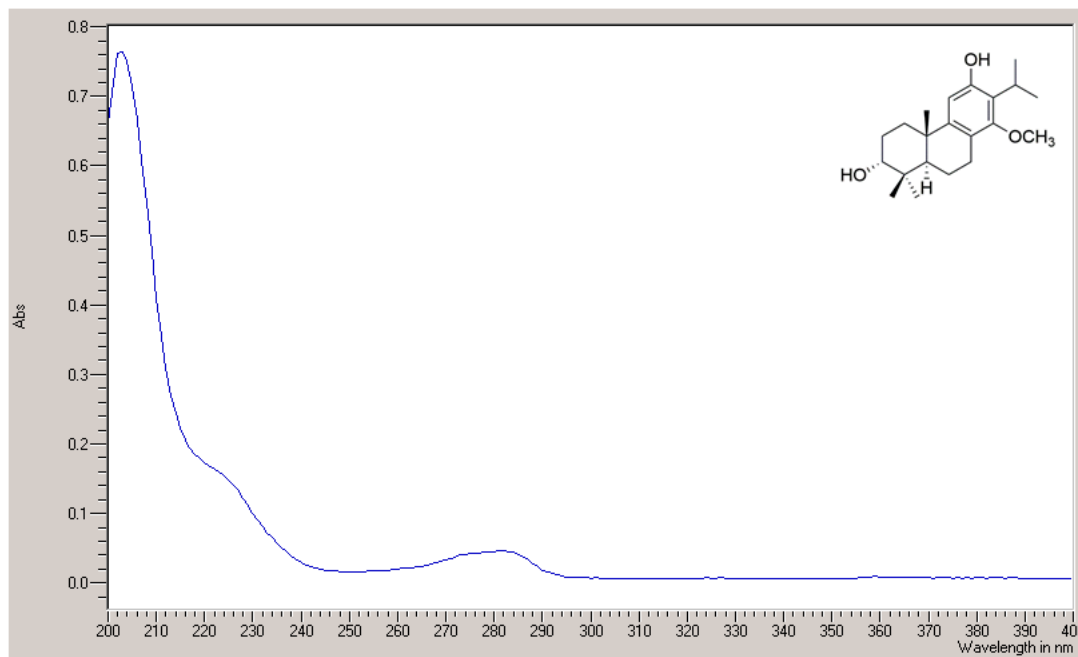


Figure S103. UV spectrum of compound 11 in MeOH.

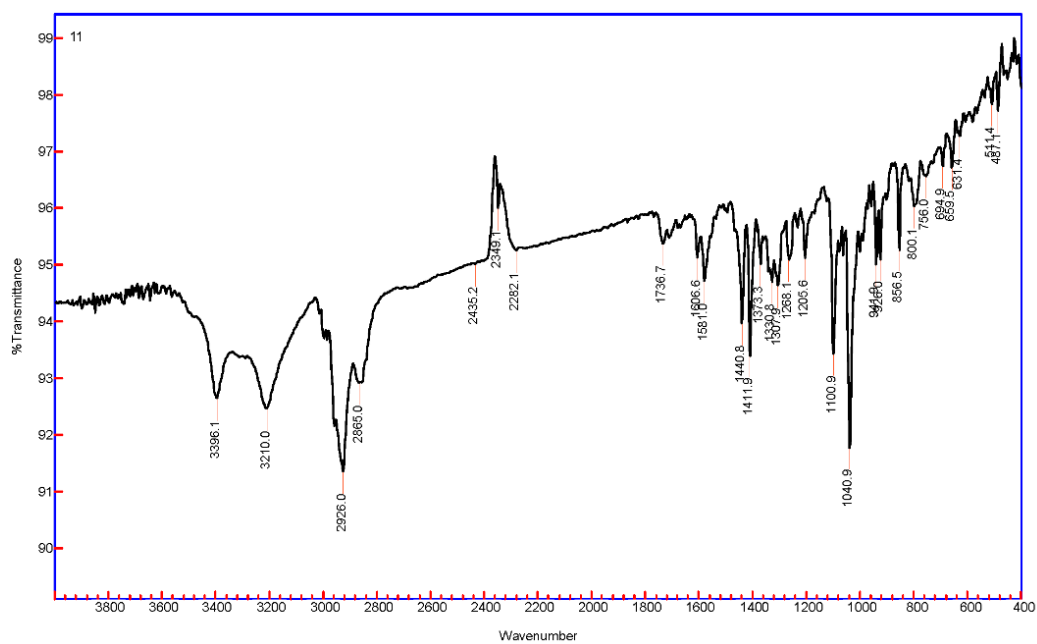


Figure S104. IR spectrum of compound 11.

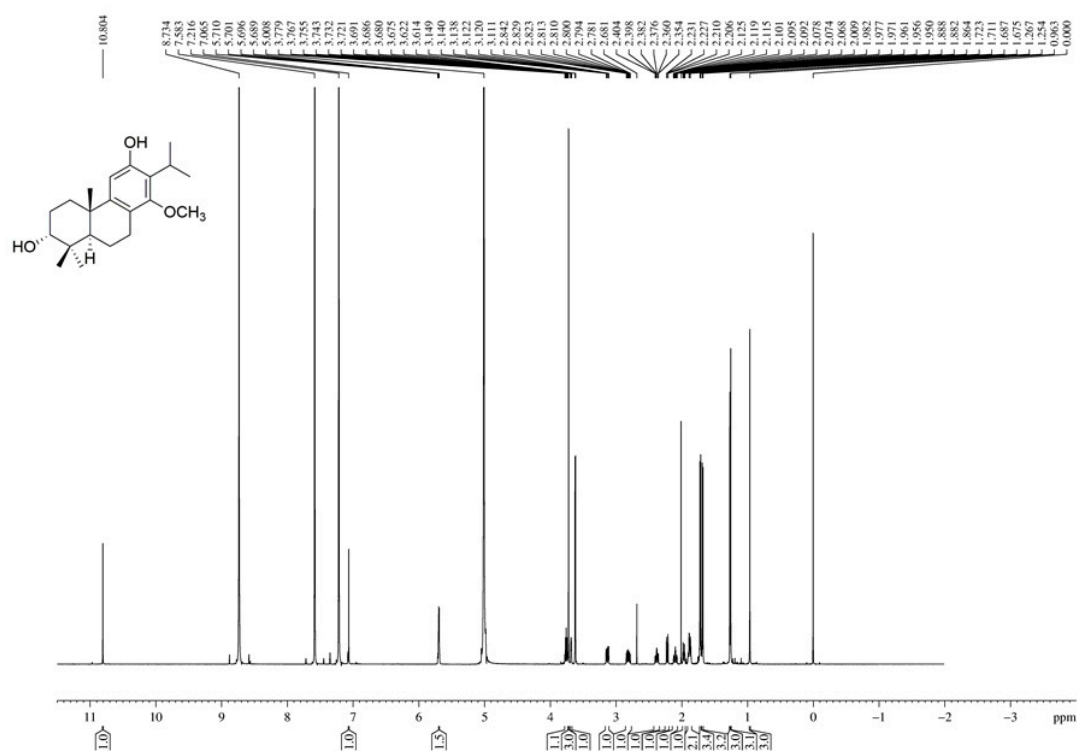


Figure S105. <sup>1</sup>H NMR spectrum of compound 11 in pyridine-*d*<sub>5</sub>.

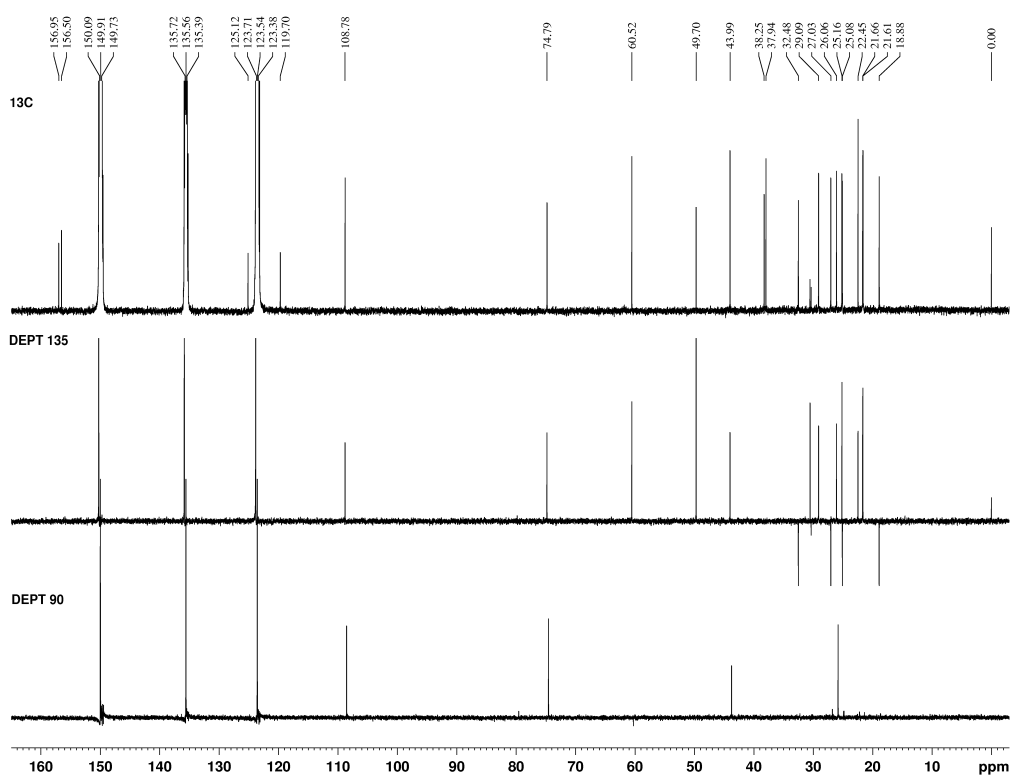


Figure S106. <sup>13</sup>C and DEPT NMR spectra of compound 11 in pyridine-*d*<sub>5</sub>.

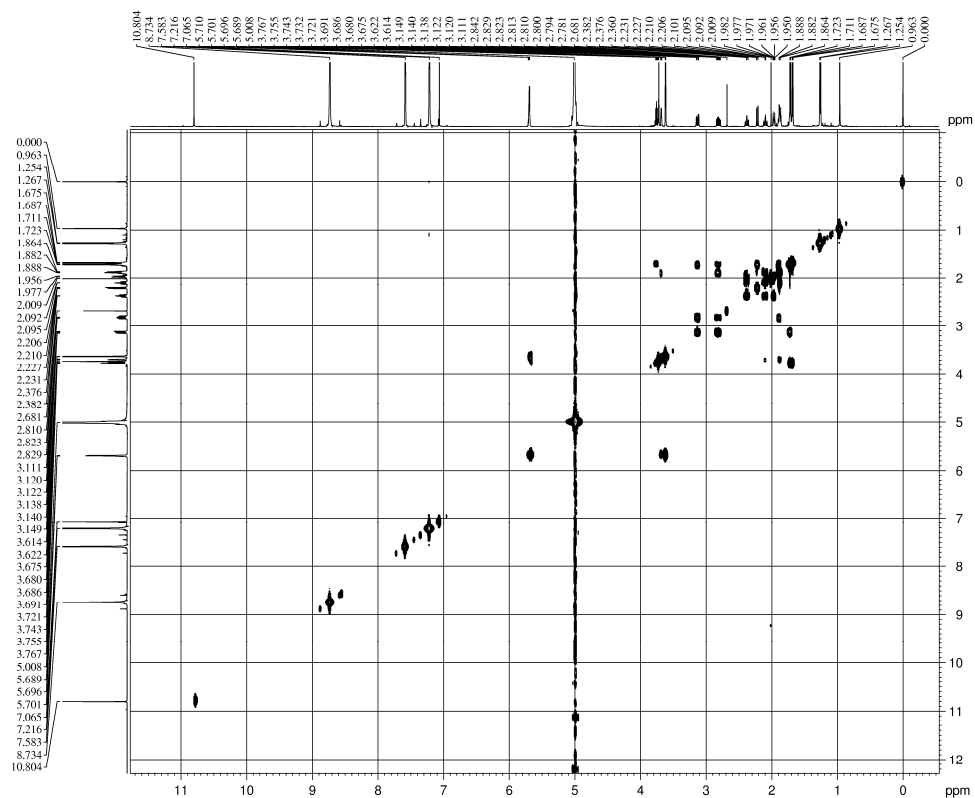


Figure S107.  $^1\text{H}$ - $^1\text{H}$  COSY spectrum of compound 11 in pyridine- $d_5$ .

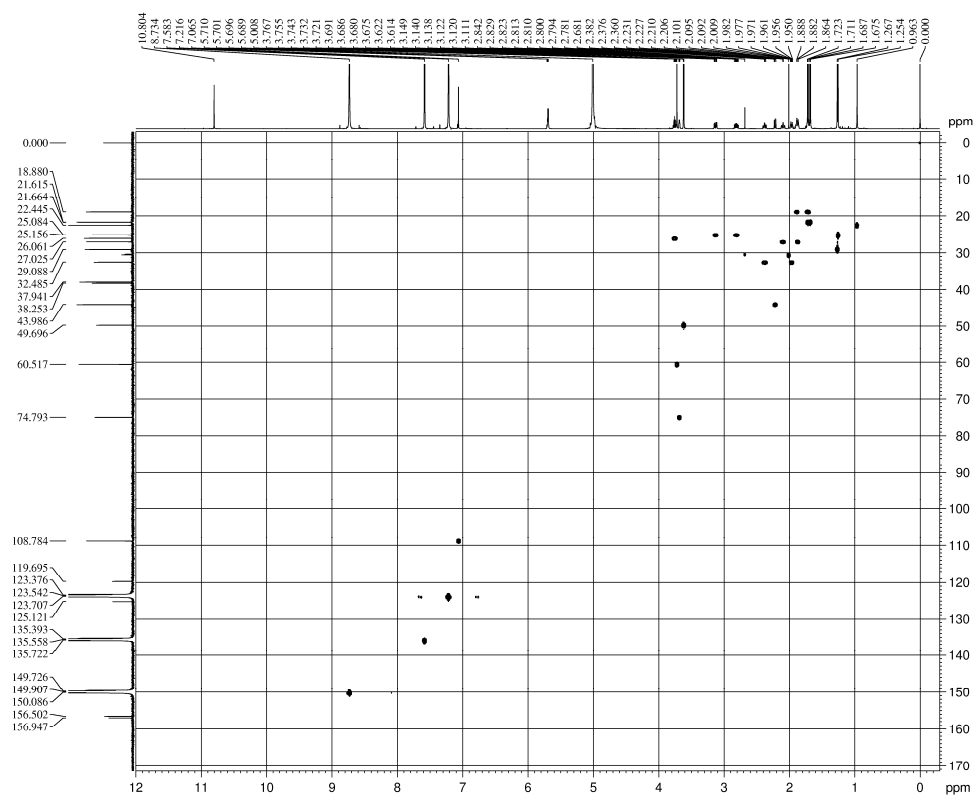


Figure S108. HSQC spectrum of compound 11 in pyridine- $d_5$ .

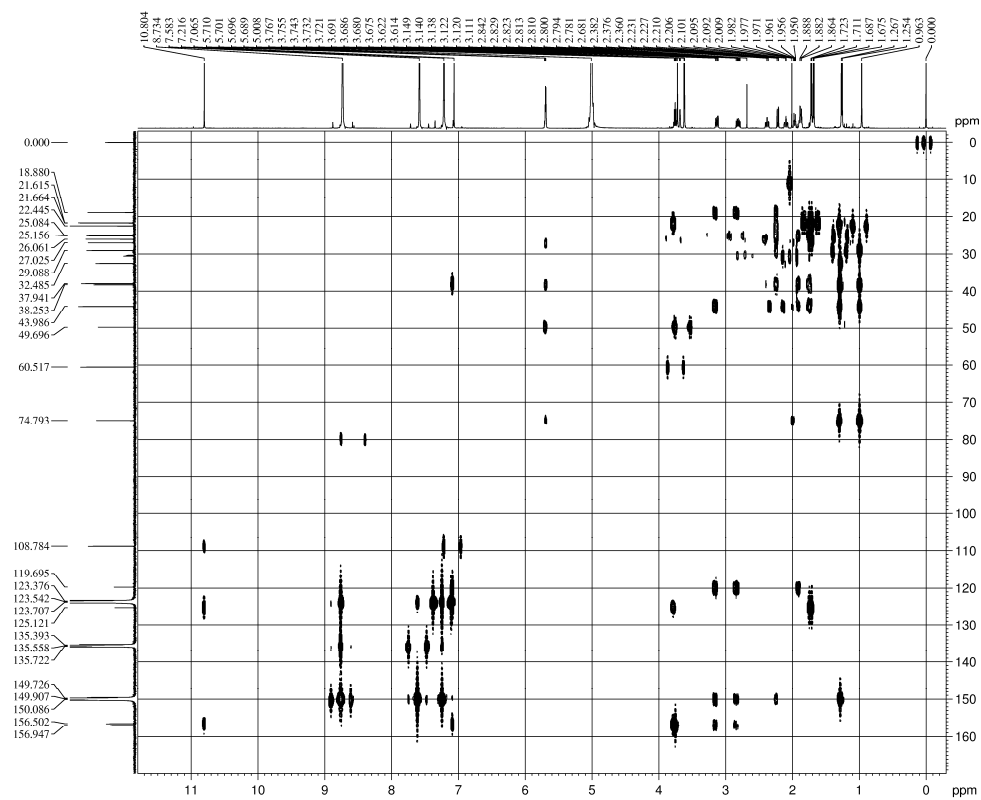


Figure S109. HMBC spectrum of compound 11 in pyridine-*d*<sub>5</sub>.

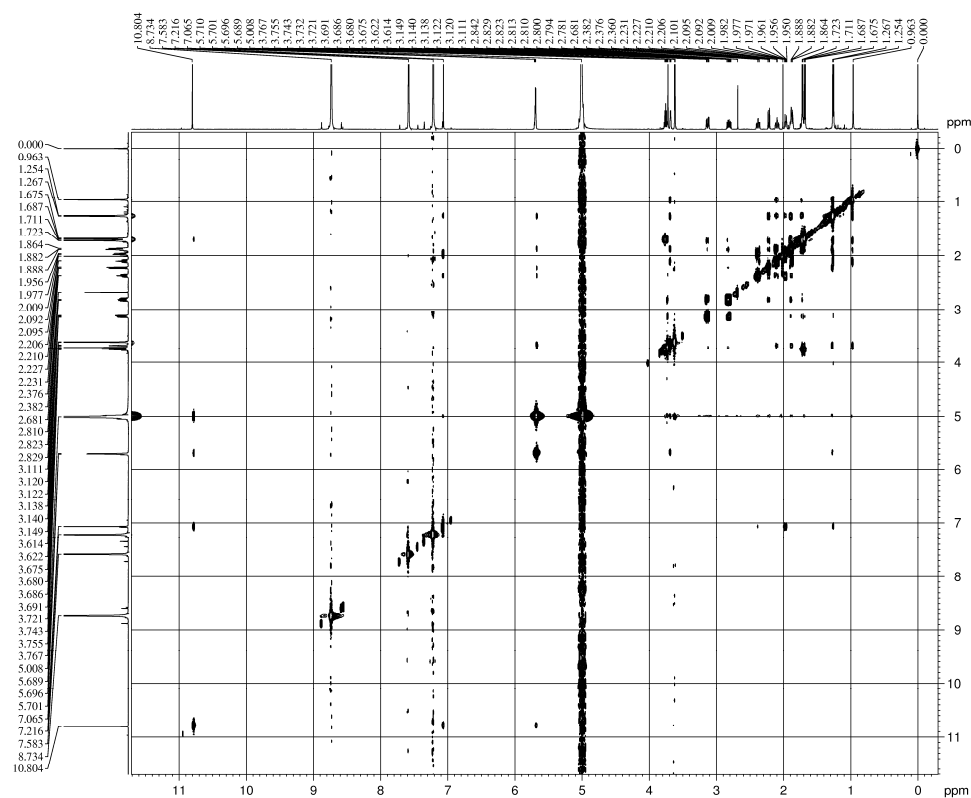


Figure S110. NOESY spectrum of compound 11 in pyridine-*d*<sub>5</sub>.

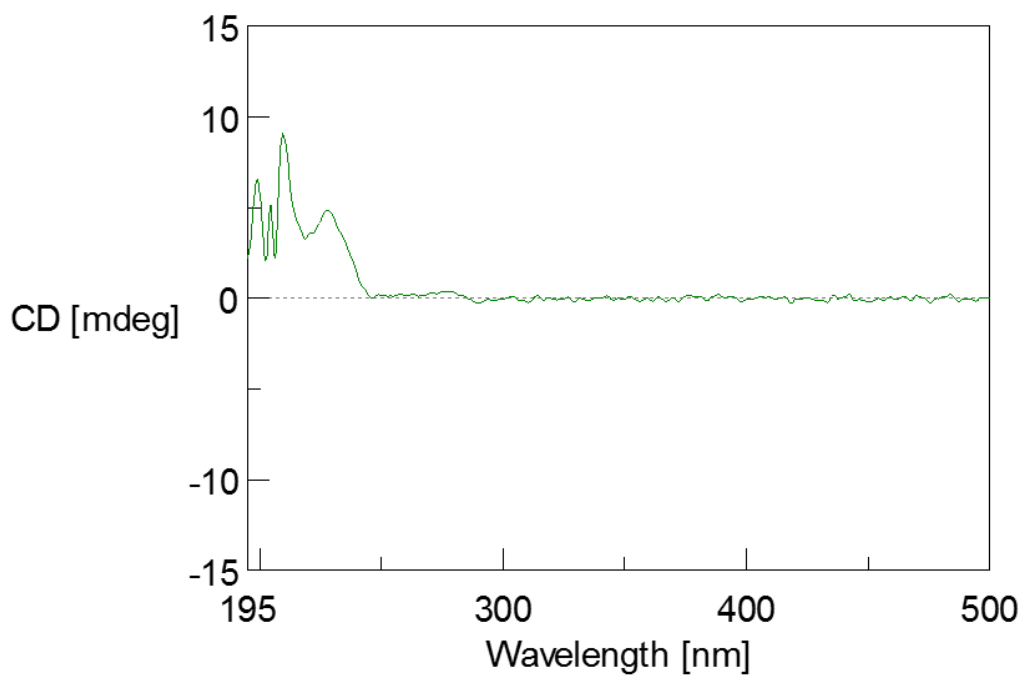


Figure S111. CD spectrum of compound 11 in MeOH.

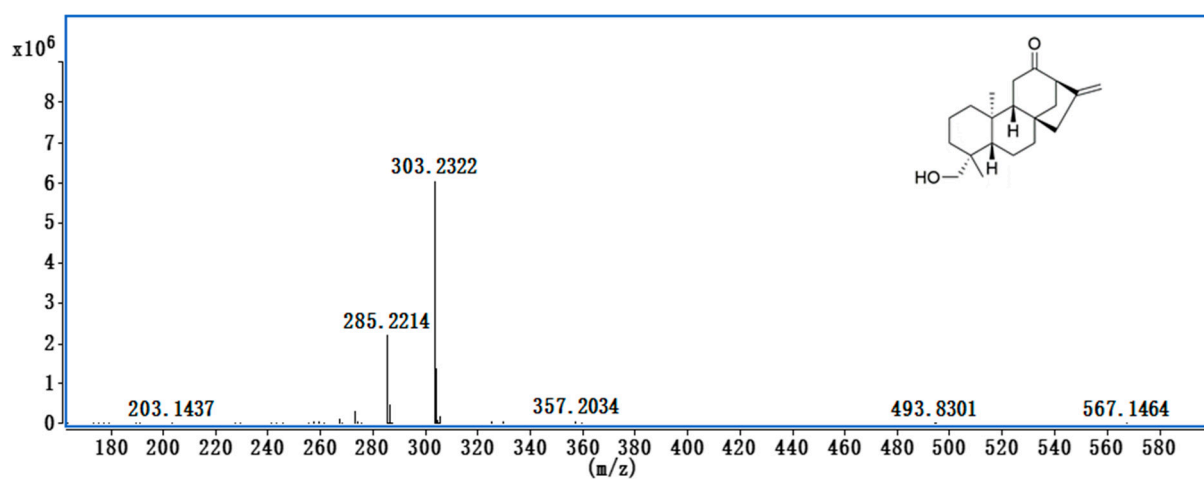


Figure S112. HRESIMS spectrum of compound 12.



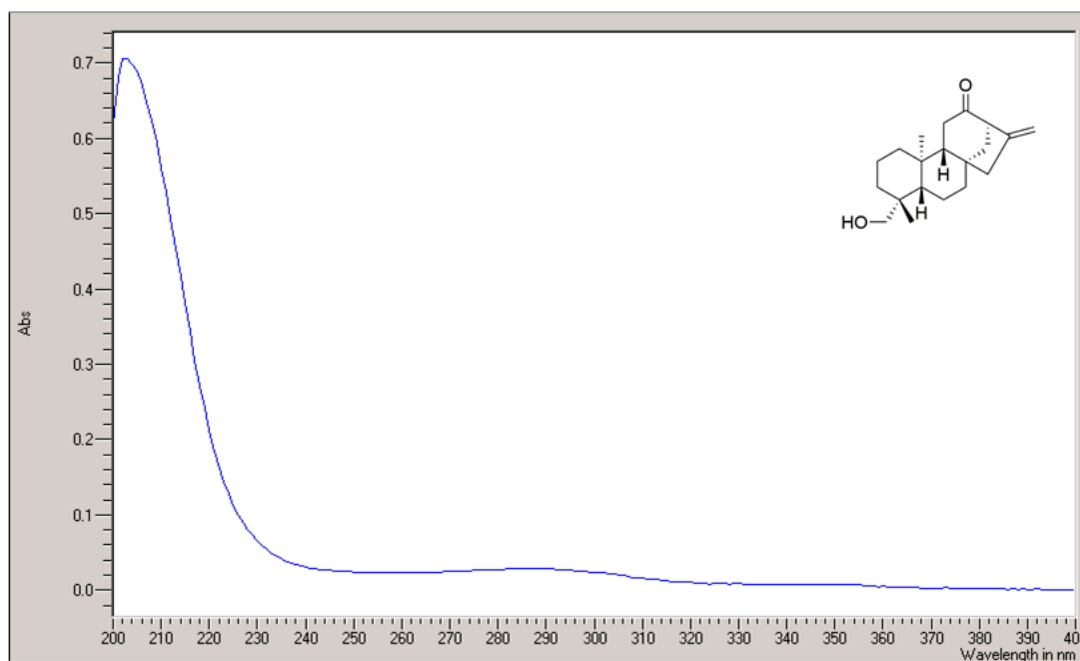


Figure S113. UV spectrum of compound 12 in MeOH.

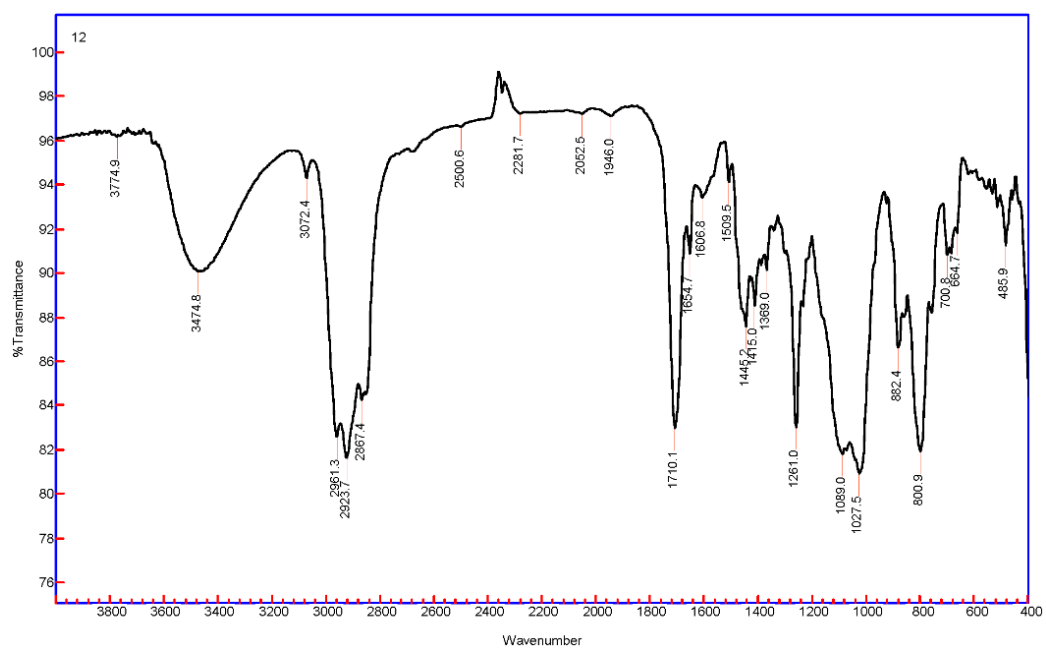


Figure S114. IR spectrum of compound 12.

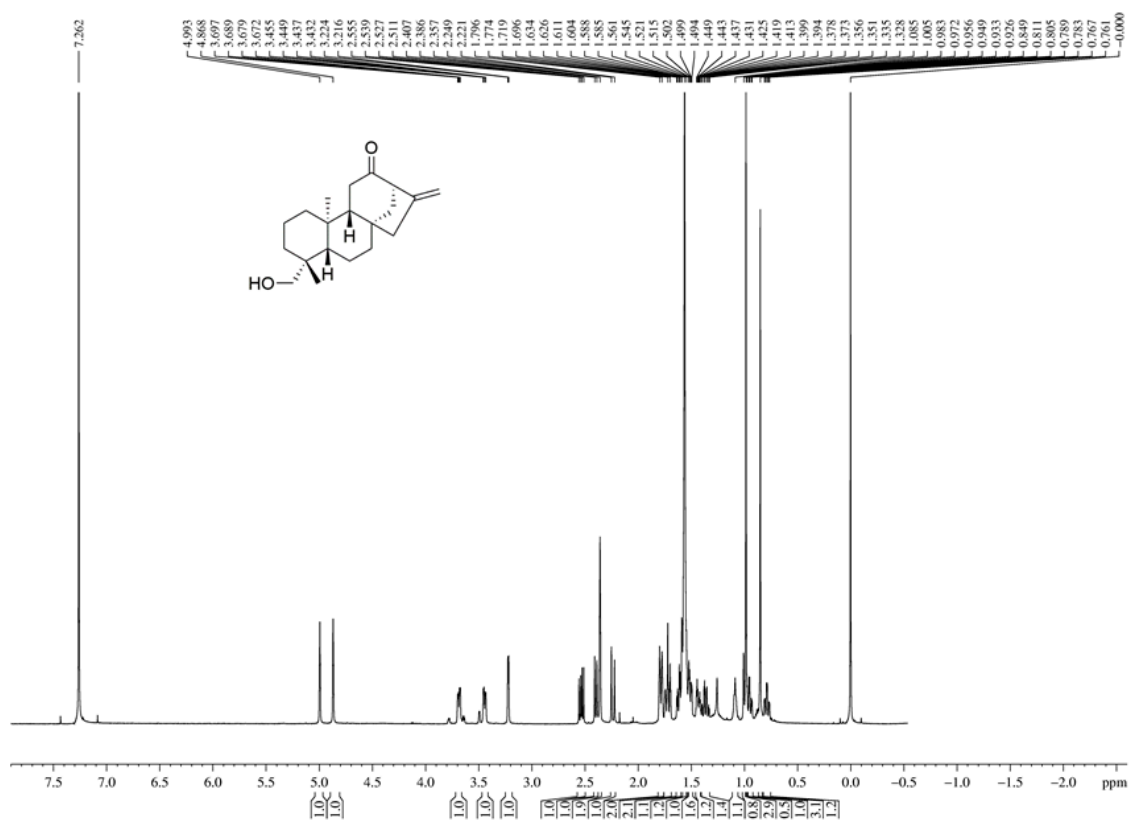


Figure S115. <sup>1</sup>H NMR spectrum of compound 12 in CDCl<sub>3</sub>.

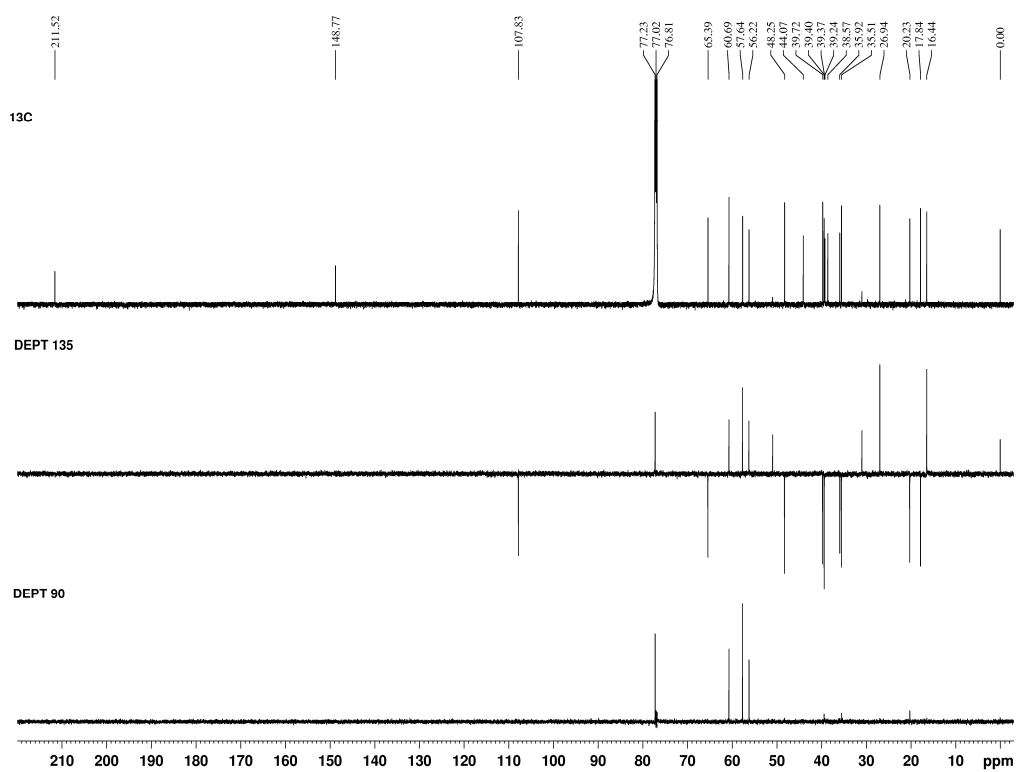


Figure S116. <sup>13</sup>C and DEPT NMR spectra of compound 12 in CDCl<sub>3</sub>.

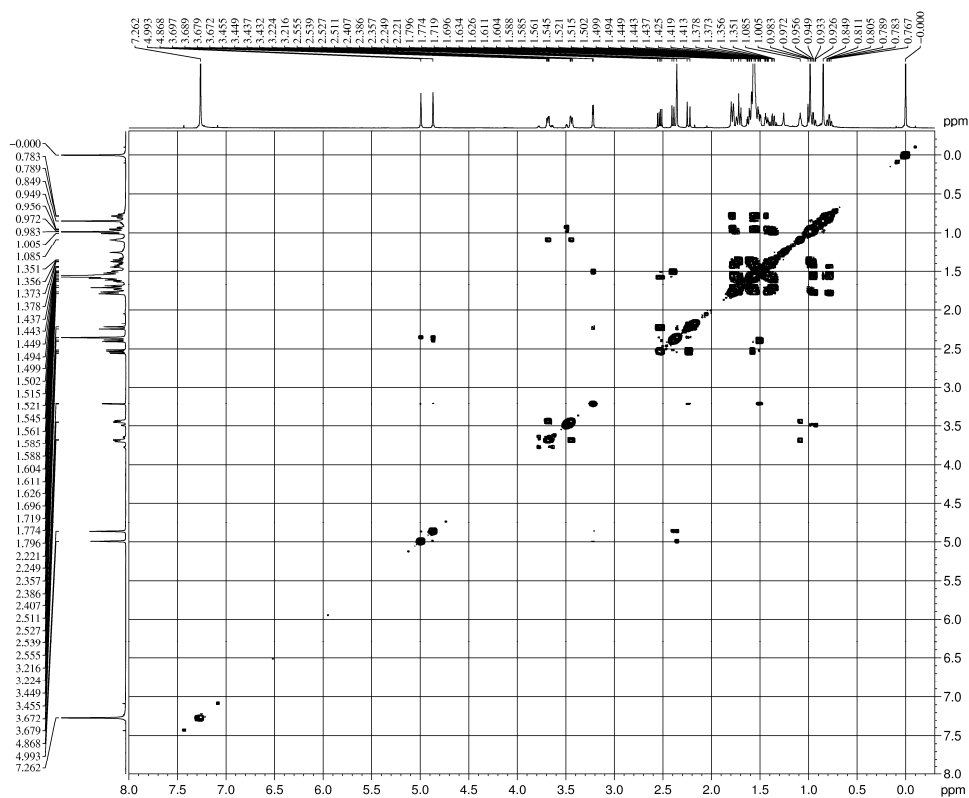


Figure S117.  $^1\text{H}$ - $^1\text{H}$  COSY spectrum of compound 12 in  $\text{CDCl}_3$ .

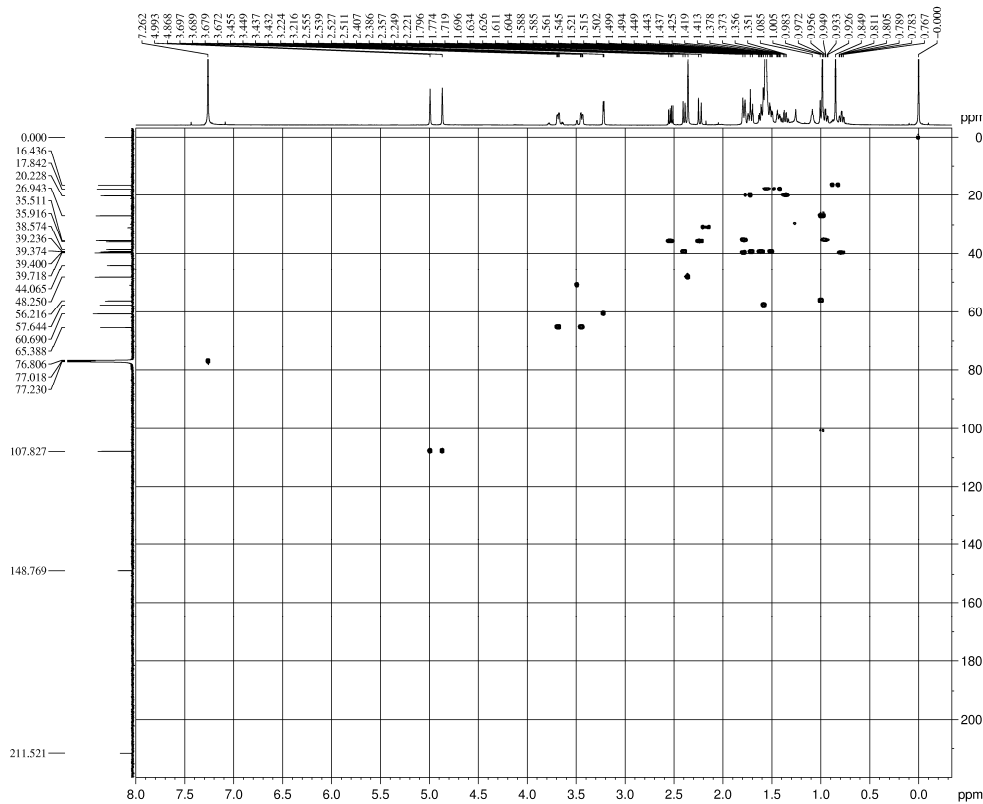


Figure S118. HSQC spectrum of compound 12 in  $\text{CDCl}_3$ .

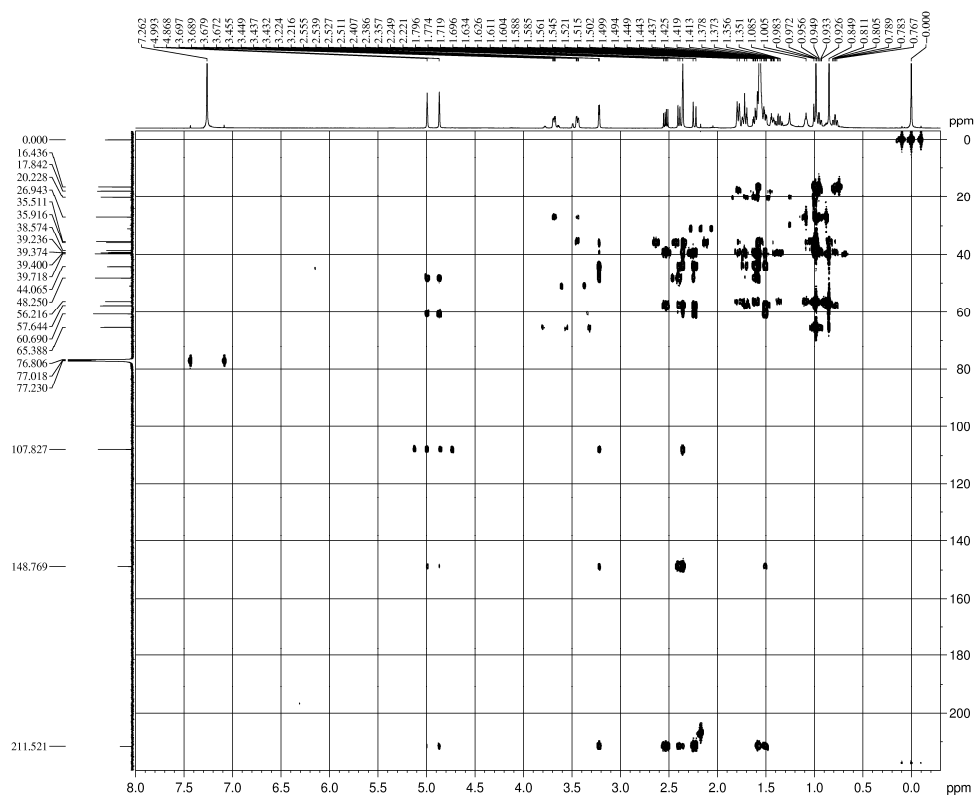


Figure S119. HMBC spectrum of compound 12 in CDCl<sub>3</sub>.

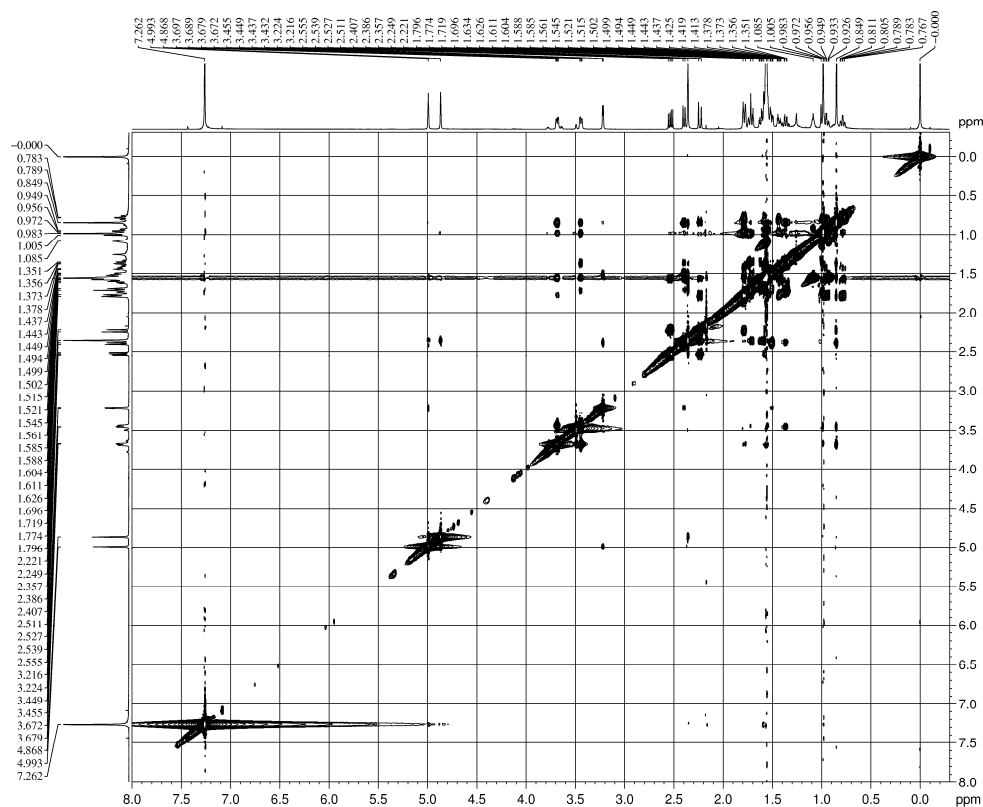


Figure S120. NOESY spectrum of compound 12 in CDCl<sub>3</sub>.

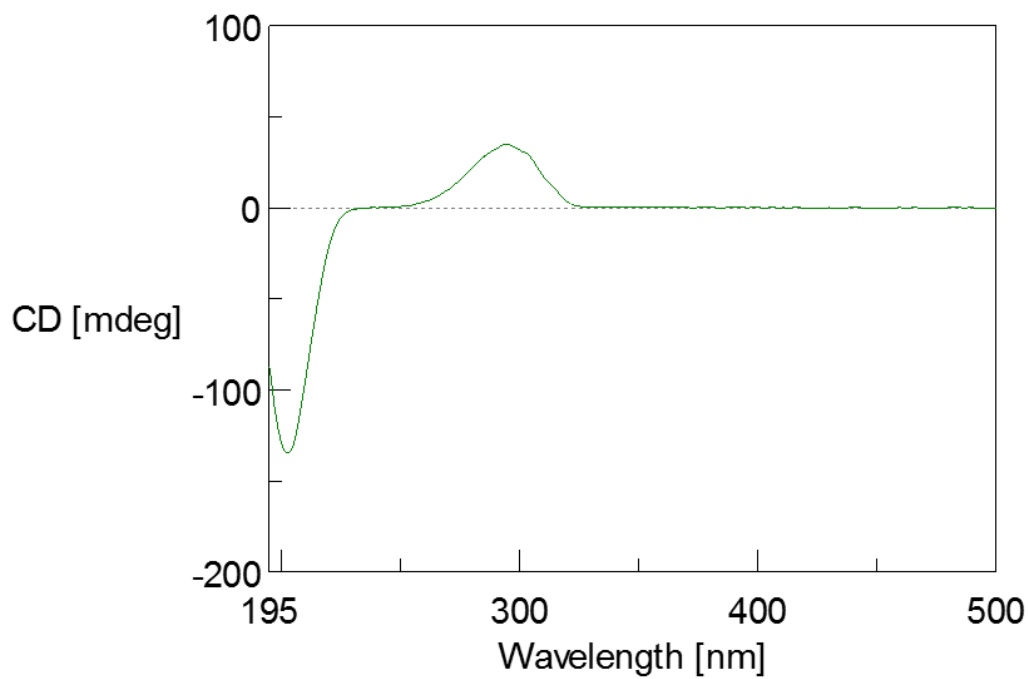


Figure S121. CD spectrum of compound 12 in MeOH.