

Supplementary Materials

Chemical Composition, Anti-Breast Cancer Activity and Extraction Techniques of Ent-Abietane Diterpenoids from *Euphorbia fischeriana* Steud

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Abstract

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Figure S48. HRESIMS data of compound **11**.

Figure S49. The purity of compound **11**.

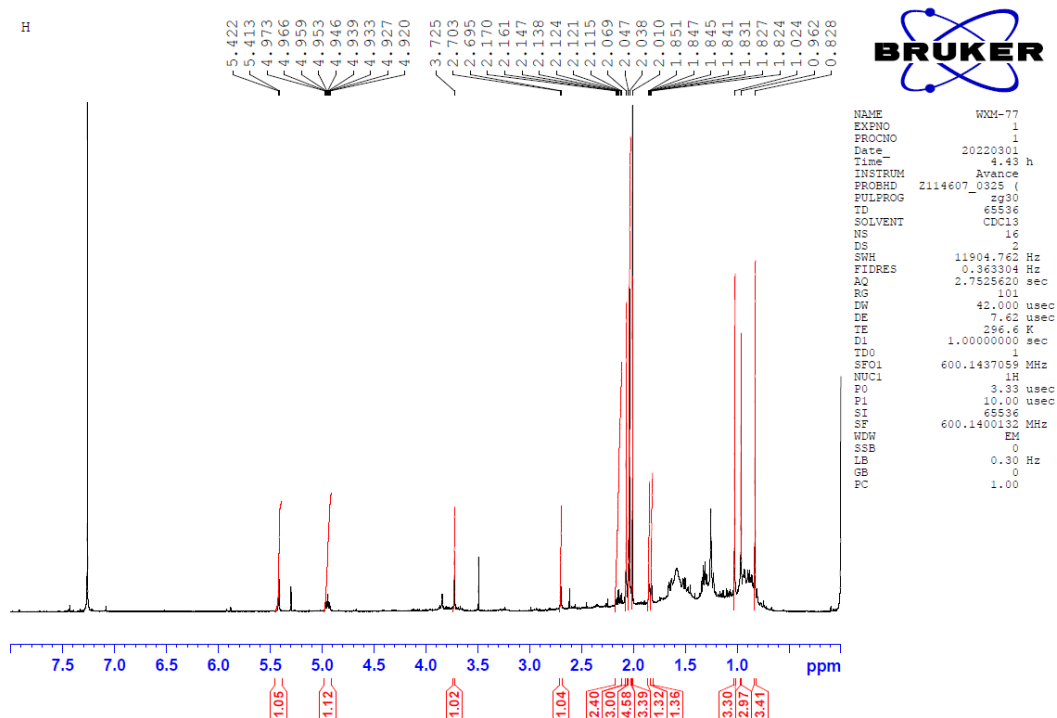


Figure S1. ¹H-NMR spectrum of compound **1**.

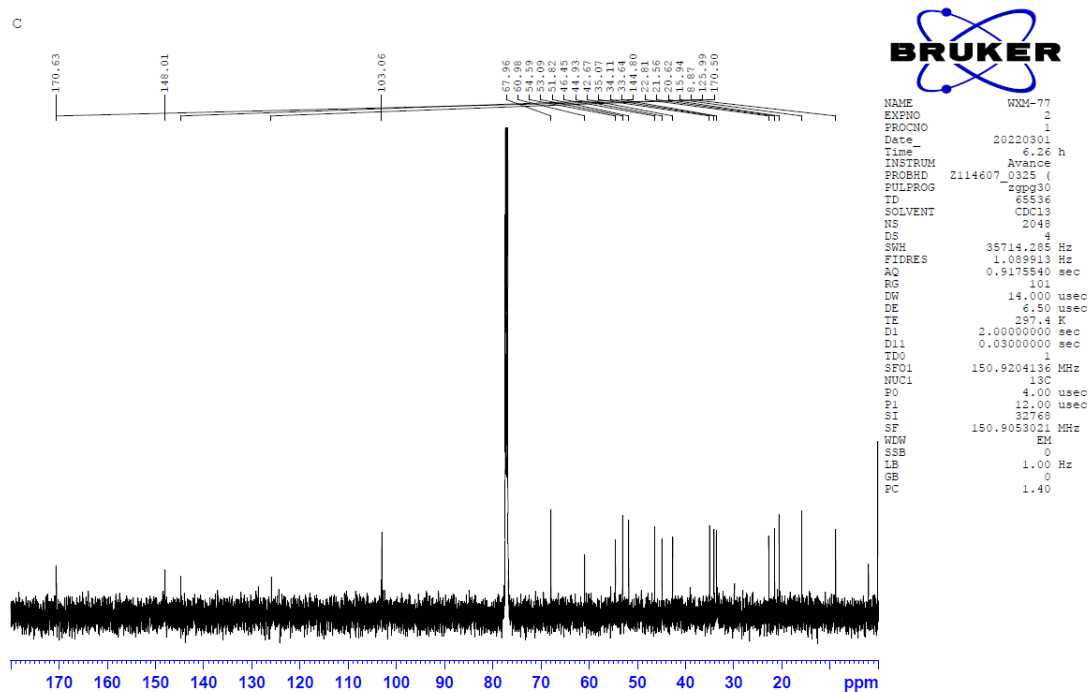
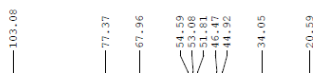


Figure S2. ¹³C-NMR spectrum of compound **1**.

DEPT



NAME WNM-77-2
EXPNO 12
PROCNO 1
Date_ 20220323
Time_ 17.57 h
INSTRUM Avance
PROBHD Z114607 0325 ()
PULPROG deptsp135
TD 65536
SOLVENT CDCl3
NS 256
DS 8
SWH 35714.285 Hz
FIDRES 1.089913 Hz
AQ 0.9175540 sec
RG 101
DW 14.000 usec
DE 6.50 usec
TE 295.3 K
CNST2 145.0000000
D1 2.00000000 sec
D2 0.00344828 sec
D12 0.00002000 sec
TD0 1
SFO1 150.9173955 MHz
NUC1 13C
P1 12.00 usec
P13 2000.00 usec
SI 32768
SF 150.9053025 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

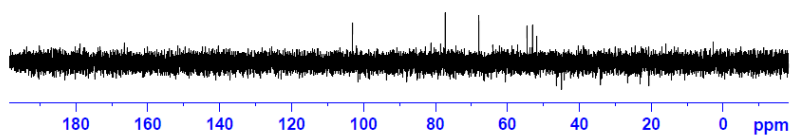
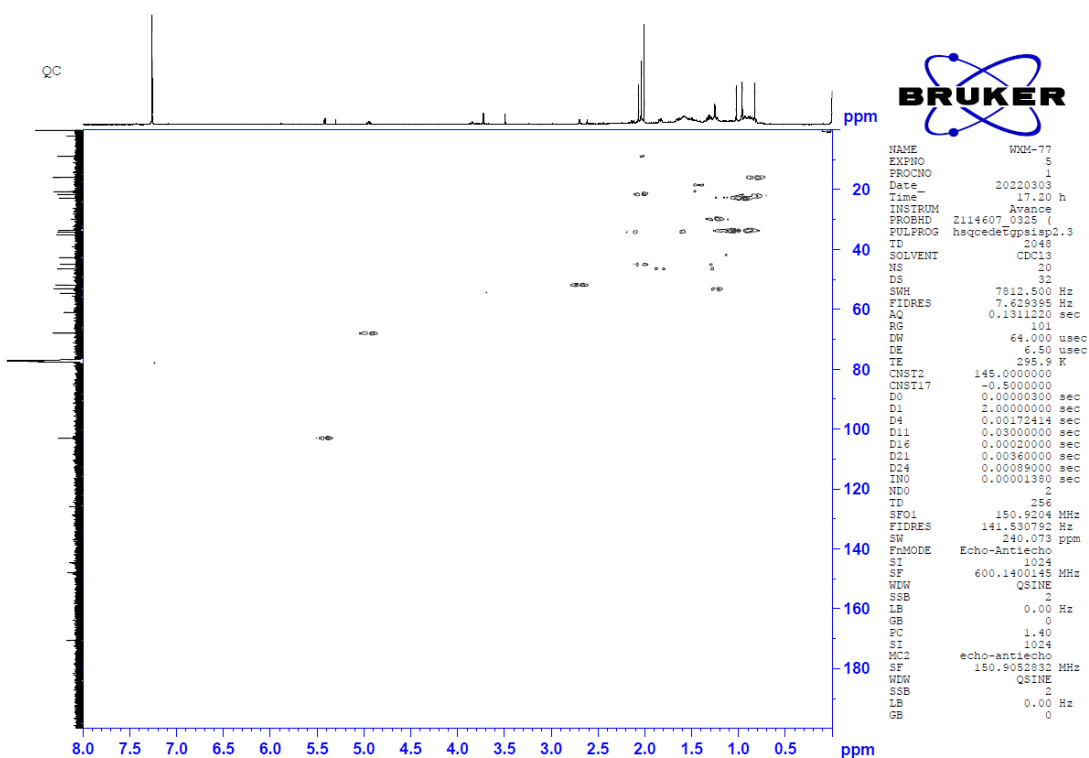


Figure S3. DEPT spectrum of compound 1.



NAME WNM-77
EXPNO 5
PROCNO 1
Date_ 20220303
Time_ 17.20 h
INSTRUM Avance
PROBHD Z114607 0325 ()
PULPROG hsqcdeftgpcisp2.3
TD 2048
SOLVENT CDCl3
NS 20
DS 32
SWH 7812.500 Hz
FIDRES 7.629395 Hz
AQ 0.1311220 sec
RG 101
DW 64.000 usec
DE 6.50 usec
TE 295.9 K
CNST2 145.0000000
D0 -0.5000000 sec
D1 0.00000300 sec
D4 2.00000000 sec
D4 0.00172414 sec
D11 0.03000000 sec
D16 0.00020000 sec
D21 0.00360000 sec
D24 0.00089000 sec
IND0 0.00001350 sec
ND0 2
TD 256
SFO1 150.9204 MHz
FIDRES 141.530792 Hz
SW 240.073 ppm
F2MODE Echo-Antiecho
SI 1024
SF 600.1400145 MHz
WDW QSINE
SSB 2
LB 0.00 Hz
GB 0
PC 1.40
SI 1024
MCR2 echo-antiecho
SF 150.9052832 MHz
WDW QSINE
SSB 2
LB 0.00 Hz
GB 0

Figure S4. HSQC spectrum of compound 1.

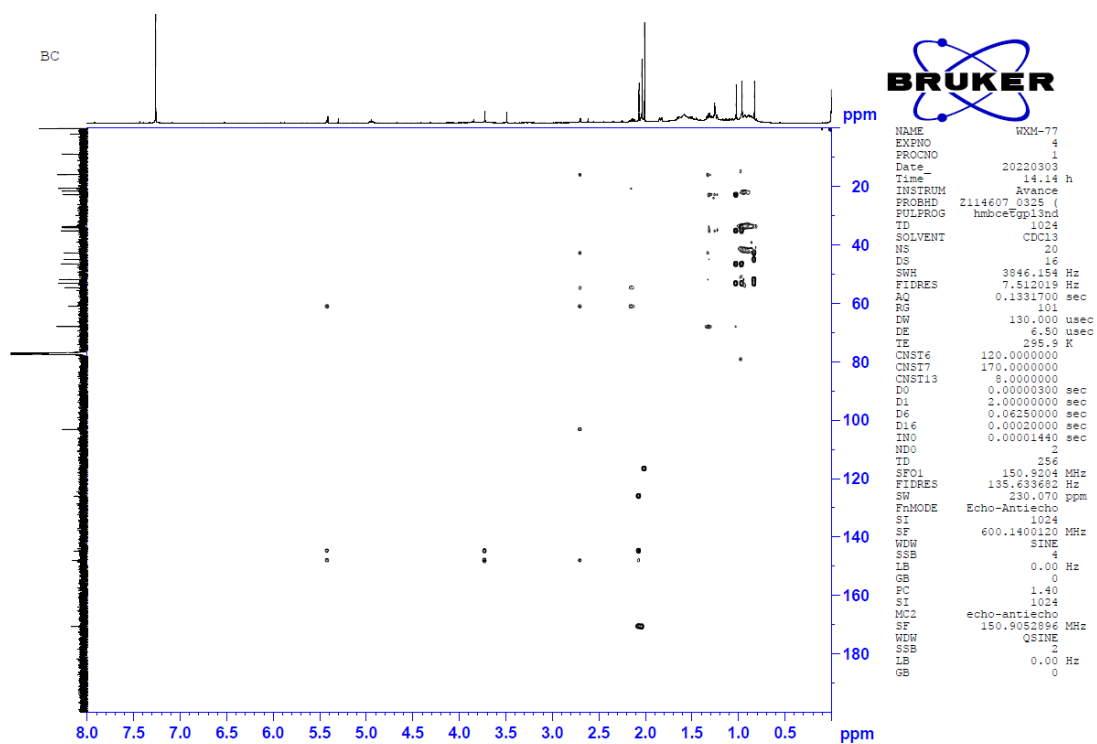


Figure S5. HMBC spectrum of compound **1**.

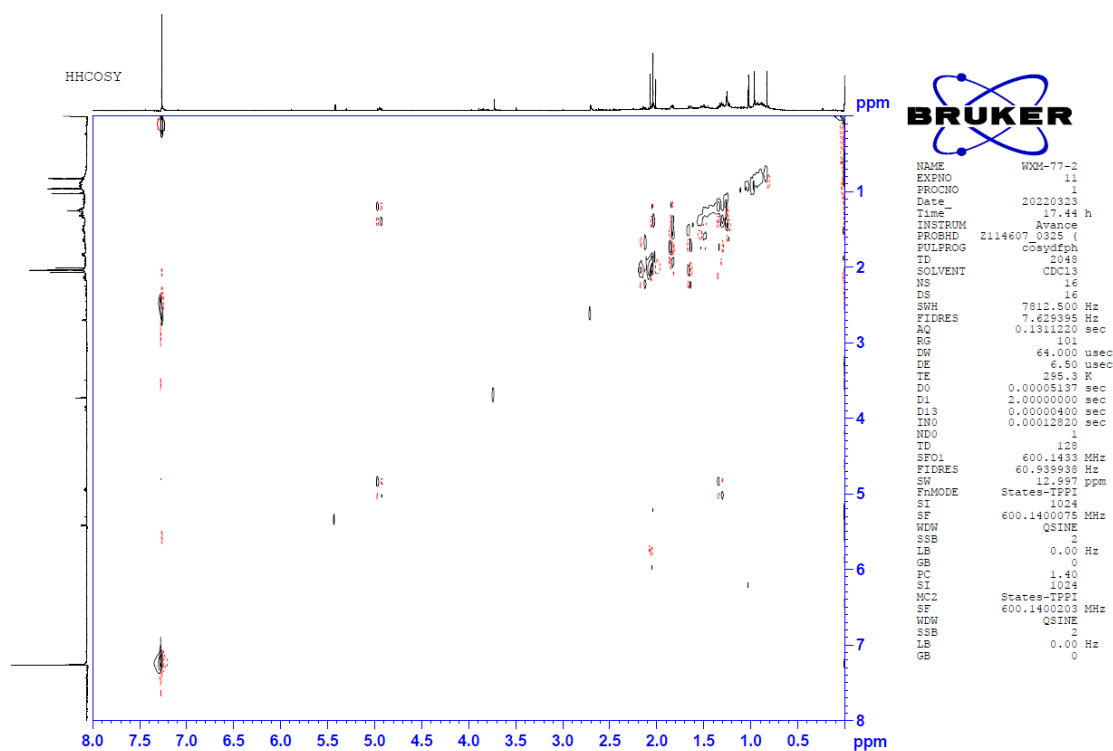


Figure S6. ^1H - ^1H COSY spectrum of compound **1**.

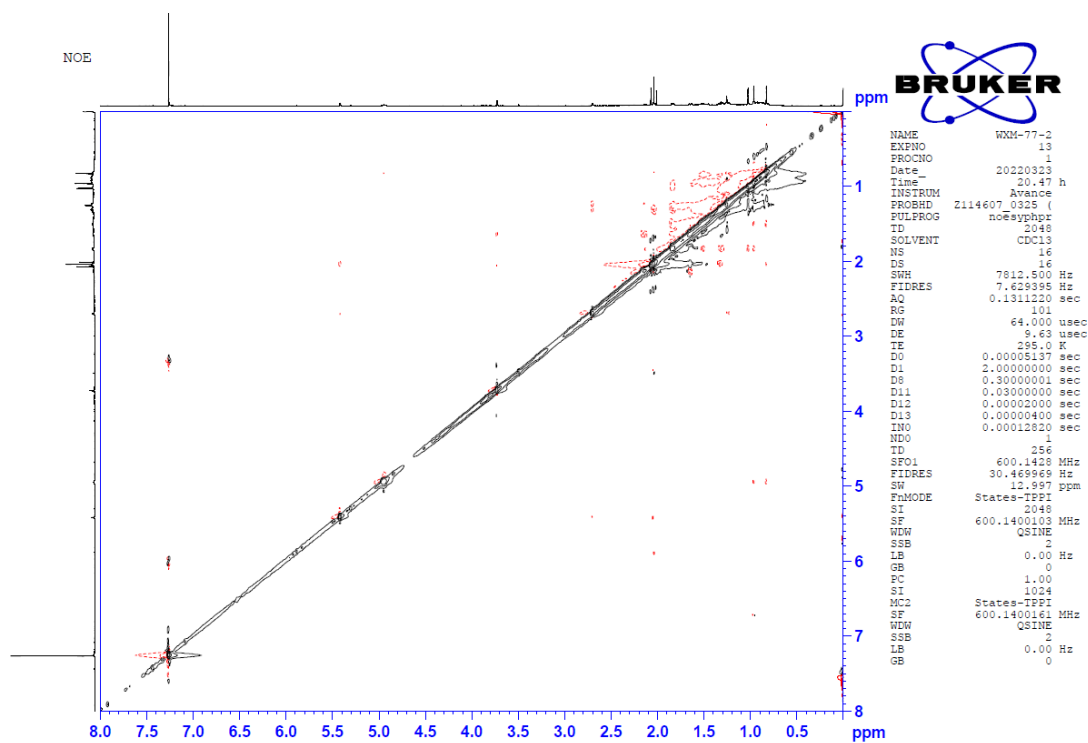


Figure S7. NOESY spectrum of compound **1**.

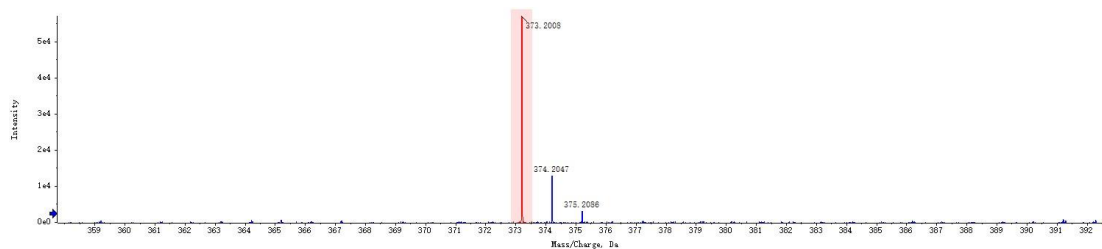


Figure S8. HRESIMS data of compound **1**.

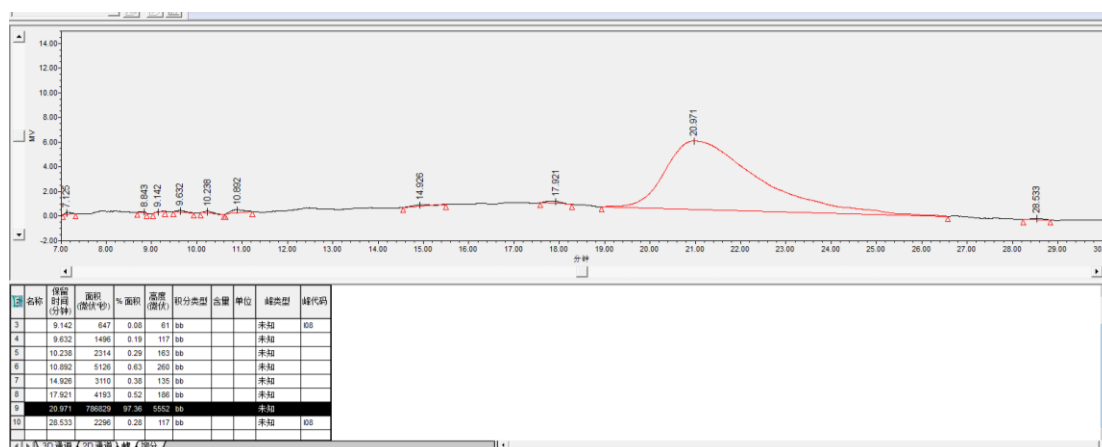


Figure S9. The purity of compound **1**.

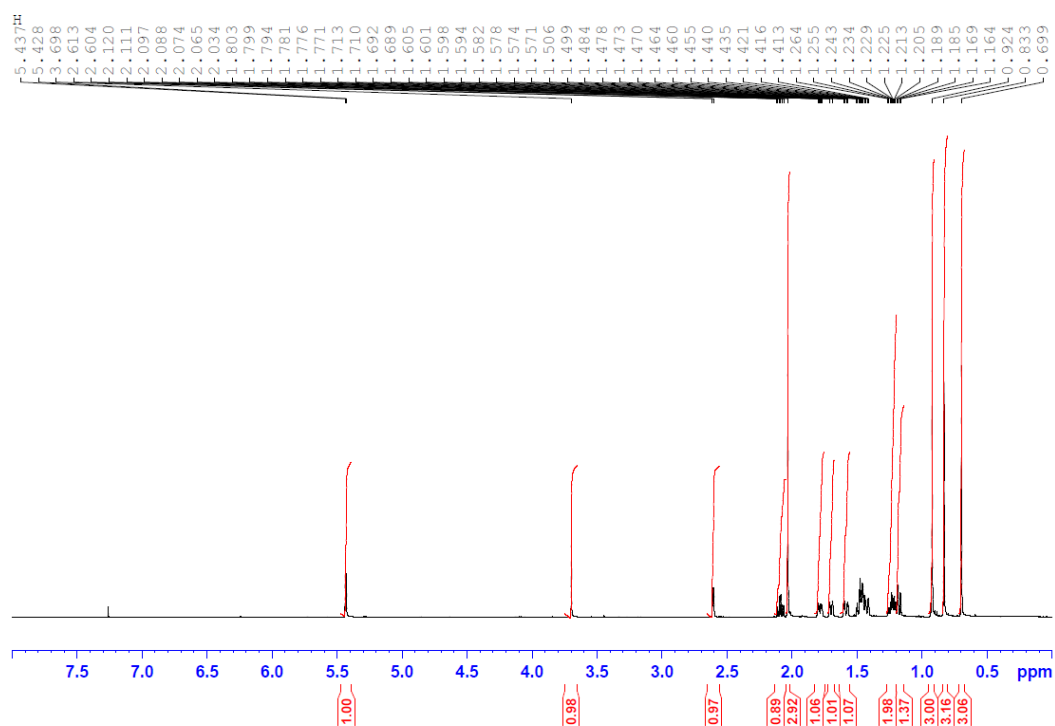


Figure S10. ^1H -NMR spectrum of compound **2**.

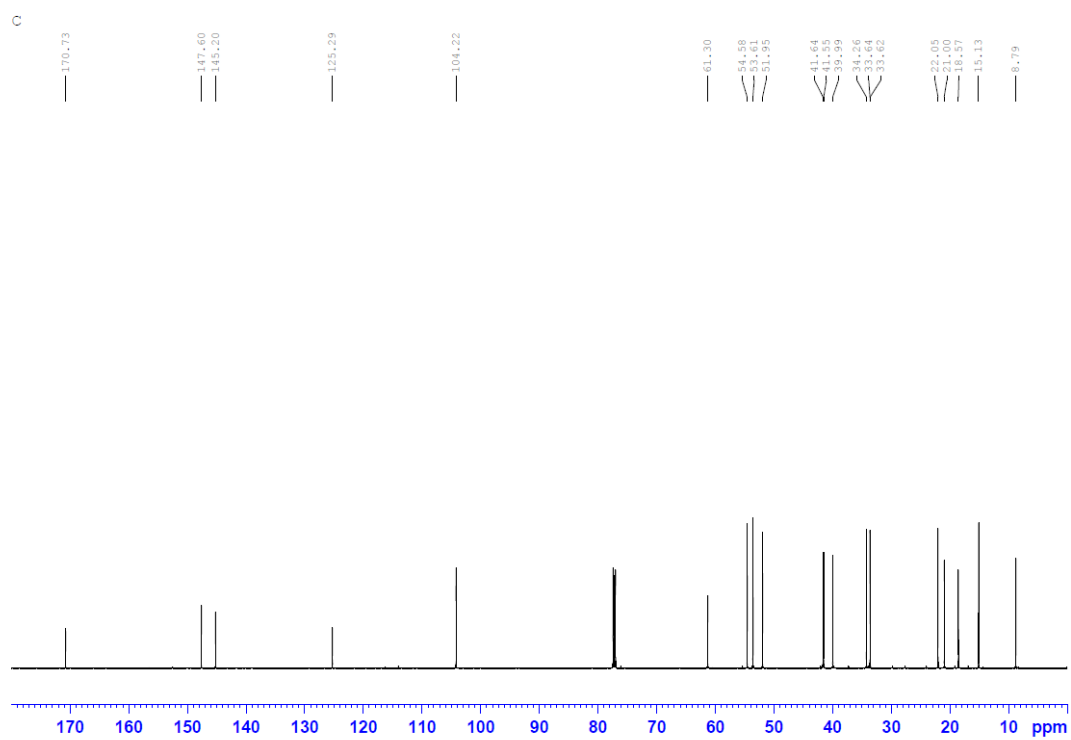


Figure S11. ^{13}C -NMR spectrum of compound **2**.

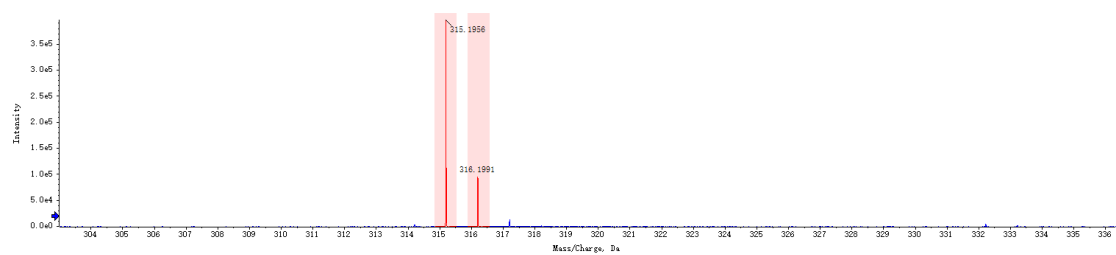


Figure S12. HRESIMS data of compound **2**.

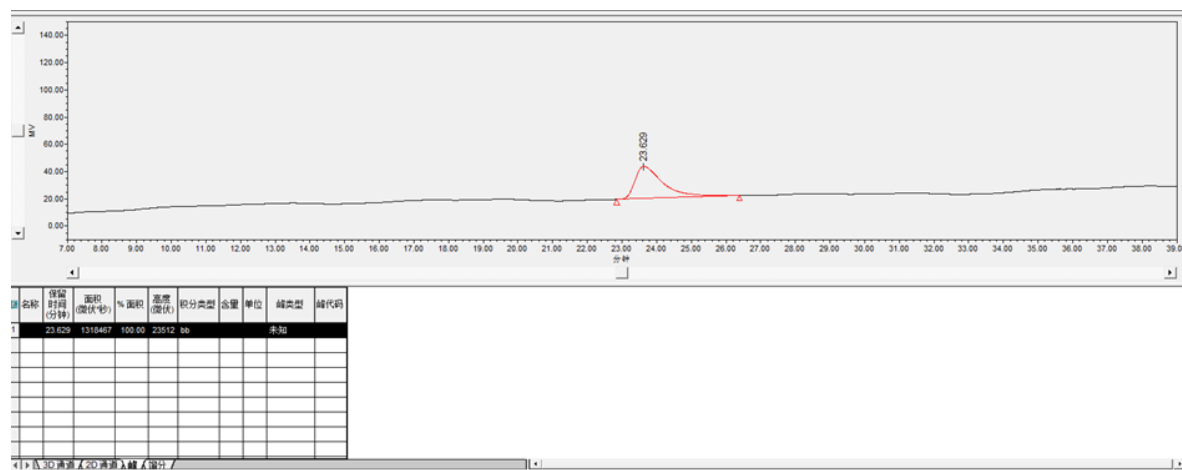


Figure S13. The purity of compound **2**.

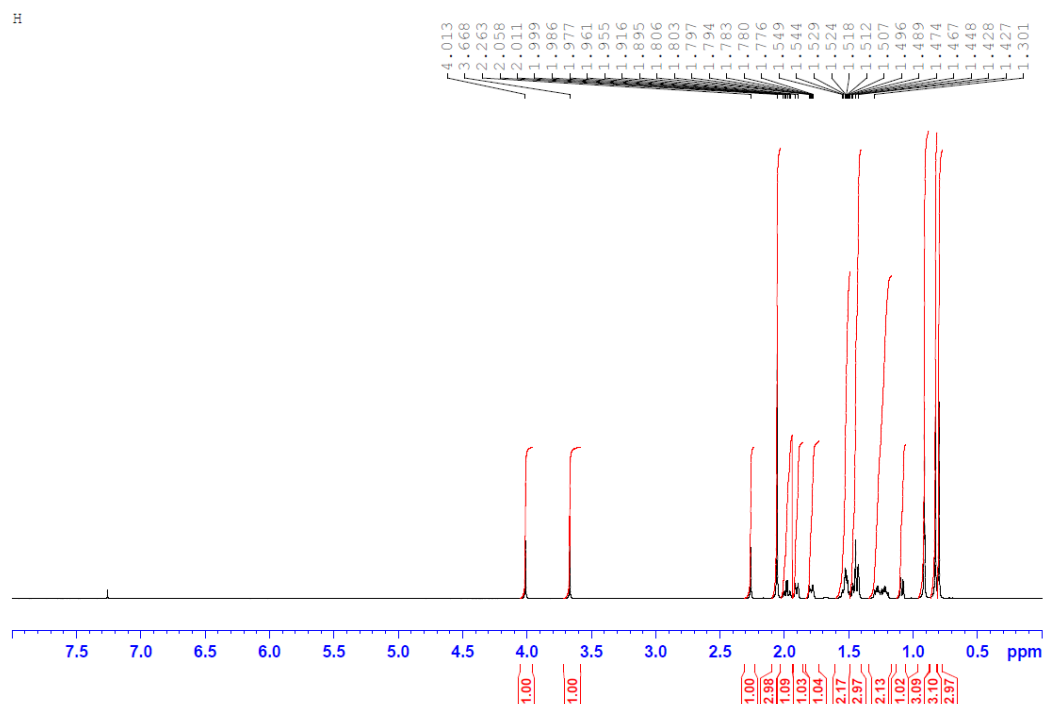


Figure S14. ¹H-NMR spectrum of compound **3**.

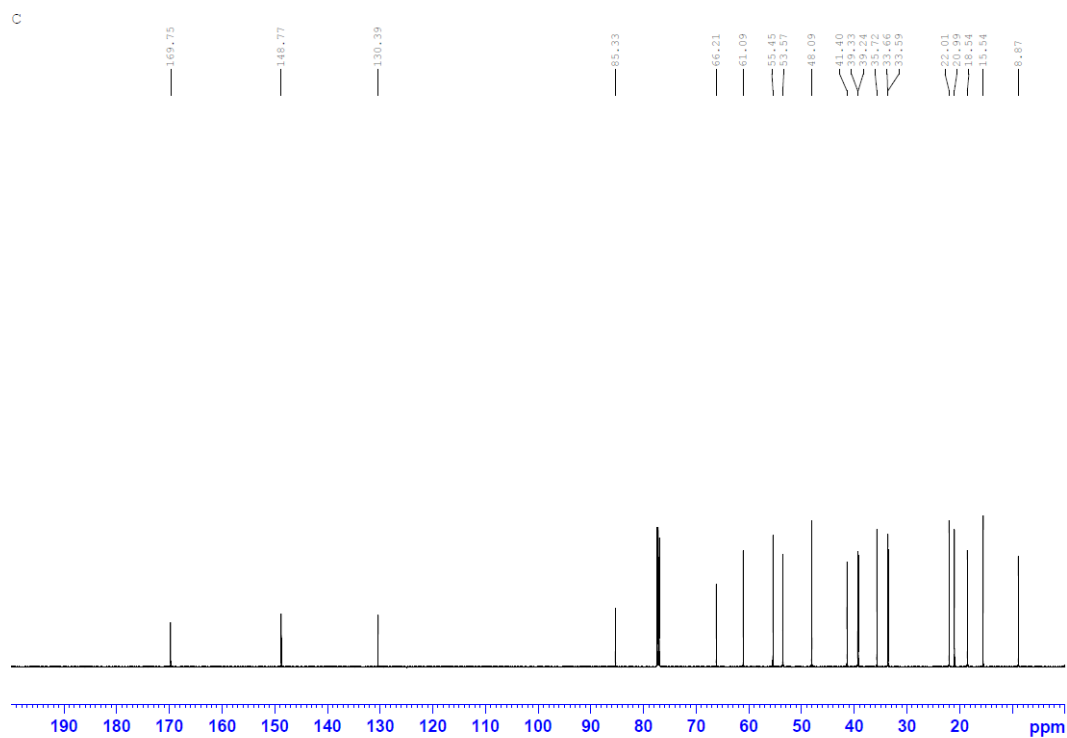


Figure S15. ^{13}C -NMR spectrum of compound **3**.

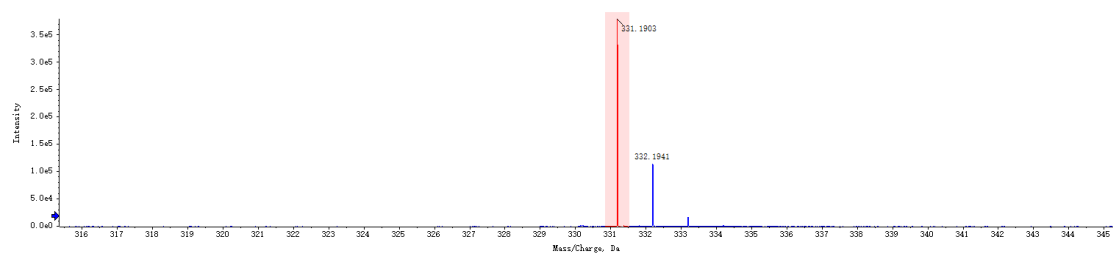


Figure S16. HRESIMS data of compound **3**.

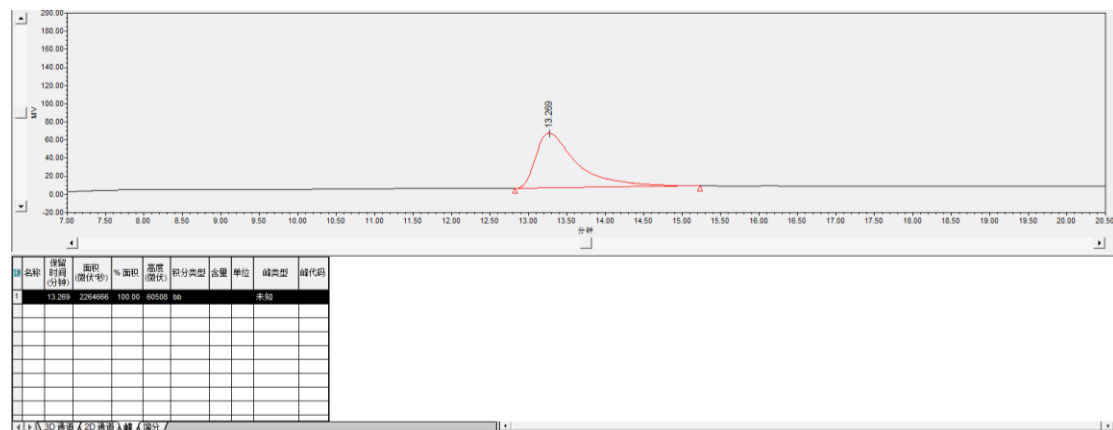


Figure S17. The purity of compound **3**.

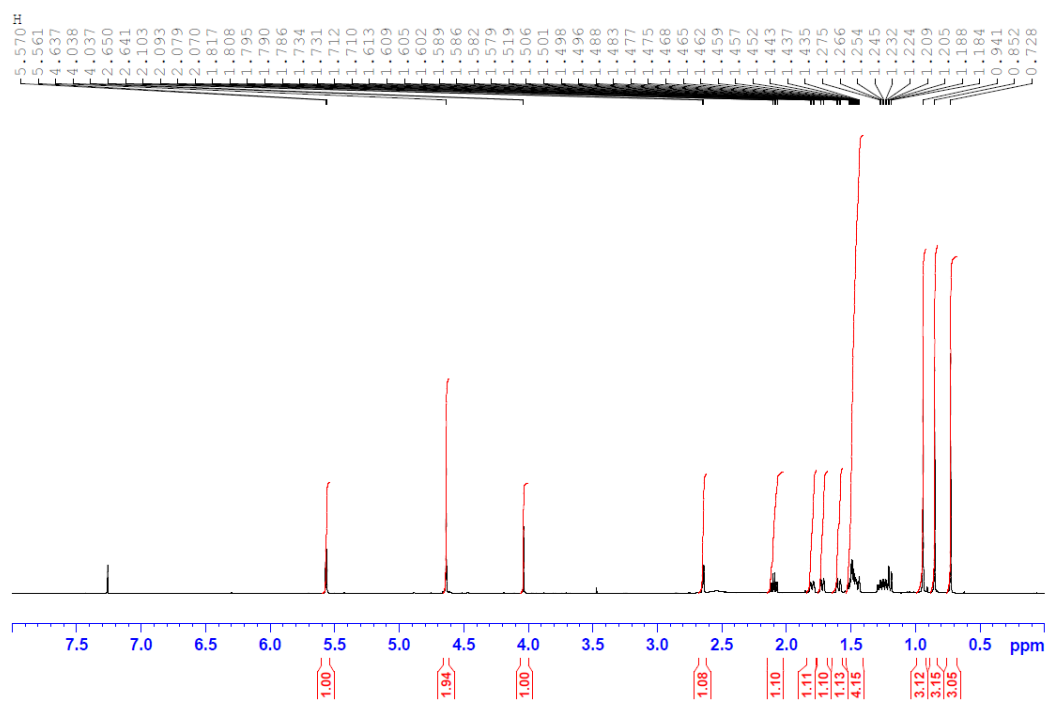


Figure S18. ^1H -NMR spectrum of compound **4**.

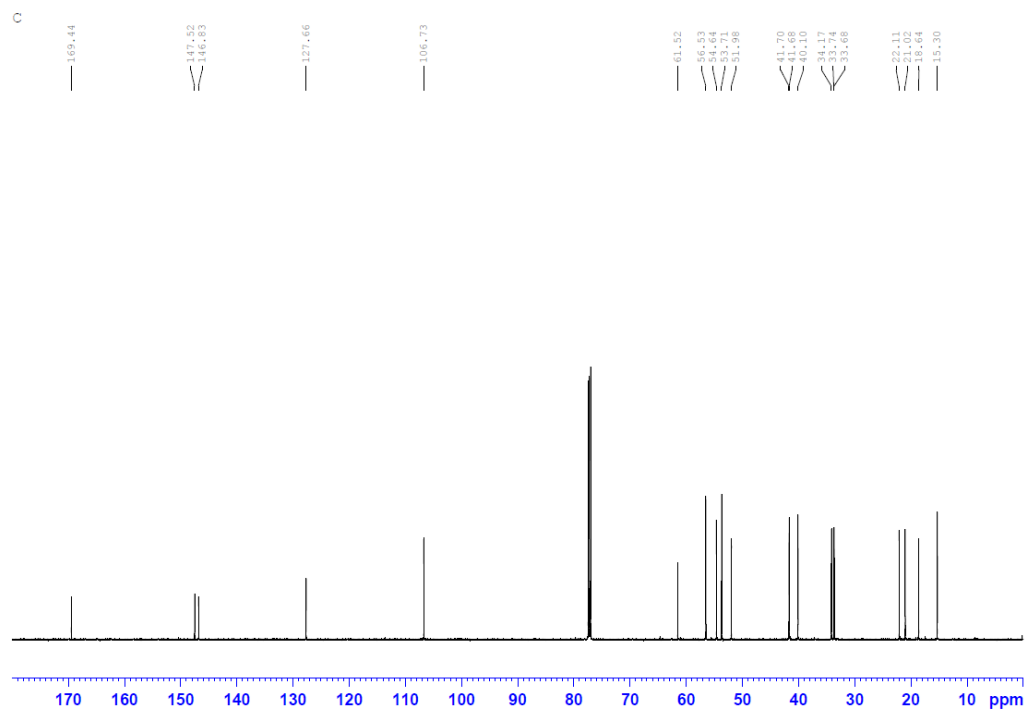


Figure S19. ^{13}C -NMR spectrum of compound **4**.

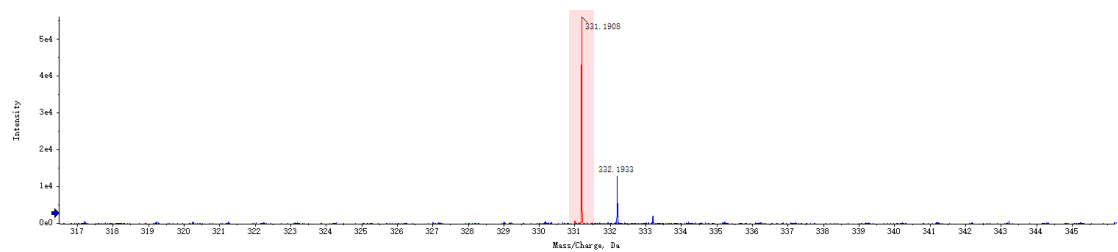


Figure S20. HRESIMS data of compound **4**.

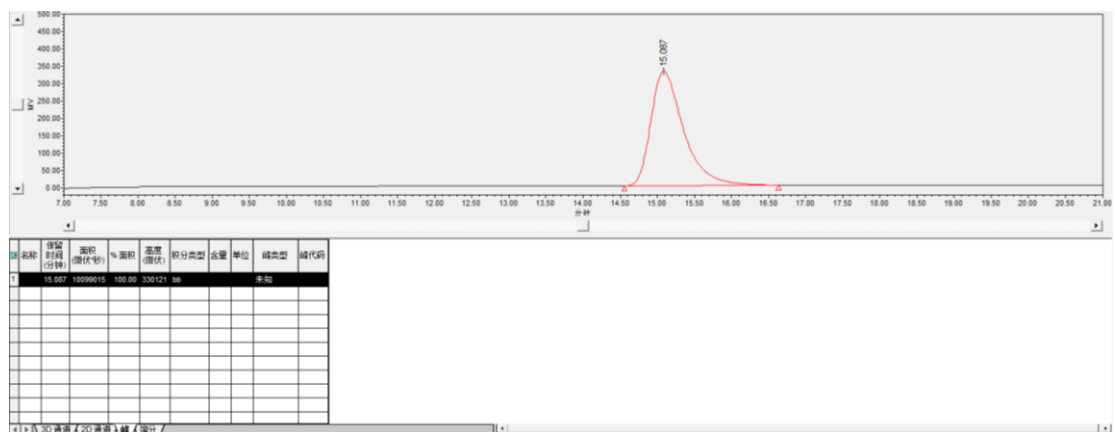


Figure S21. The purity of compound **4**.

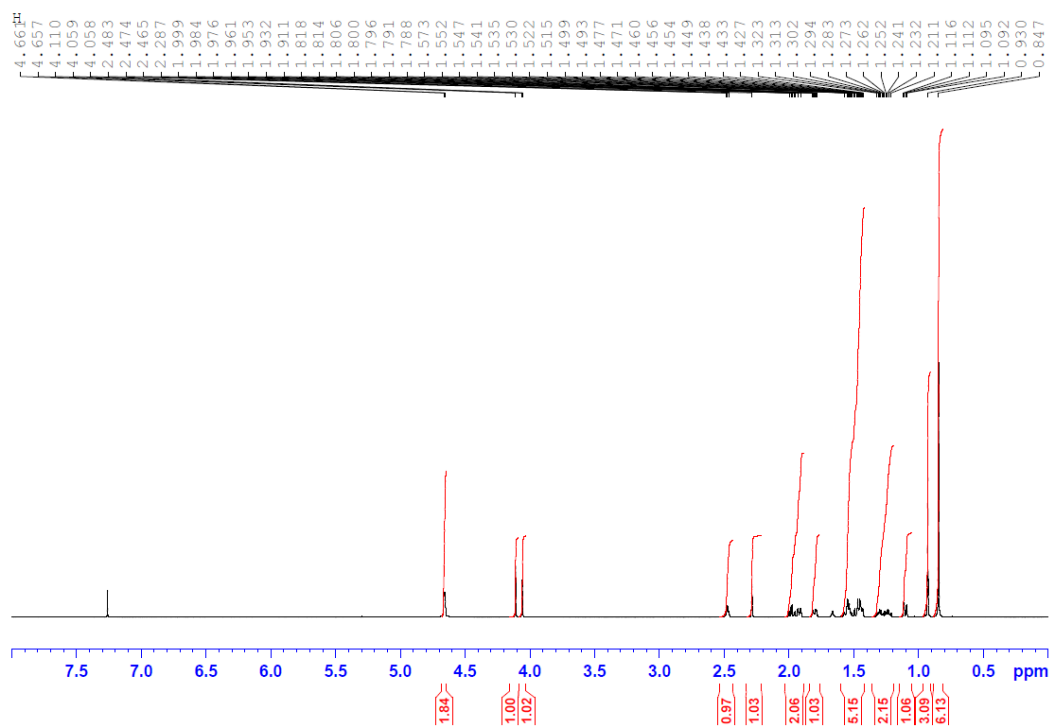


Figure S22. ¹H-NMR spectrum of compound **5**.

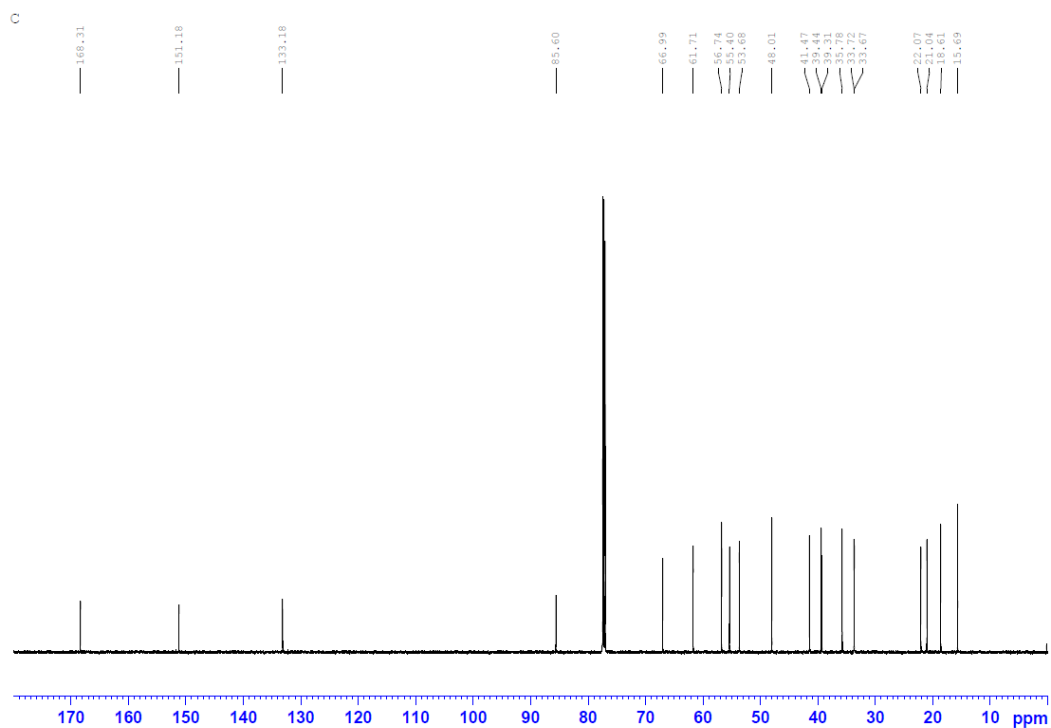


Figure S23. ¹³C-NMR spectrum of compound **5**.

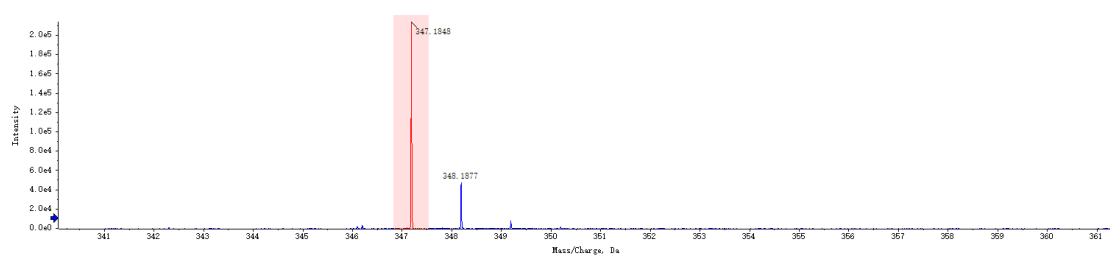


Figure S24. HRESIMS data of compound **5**.

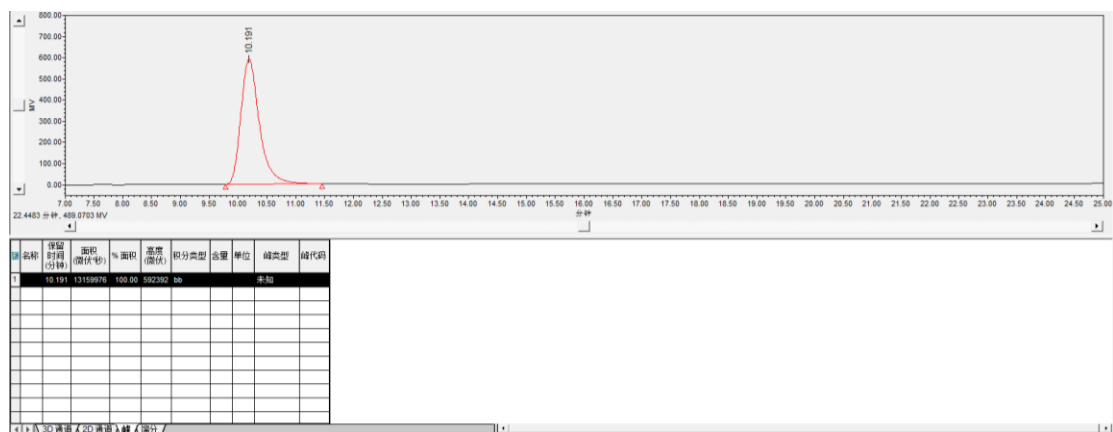


Figure S25. The purity of compound **5**.

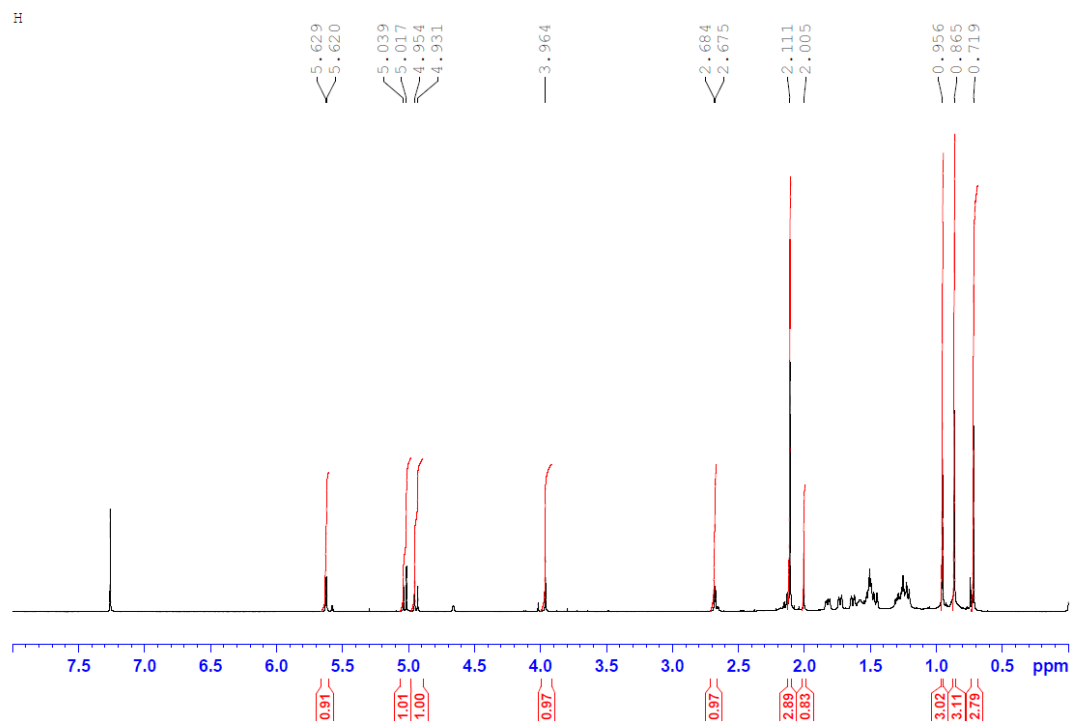


Figure S26. ¹H-NMR spectrum of compound **6**.

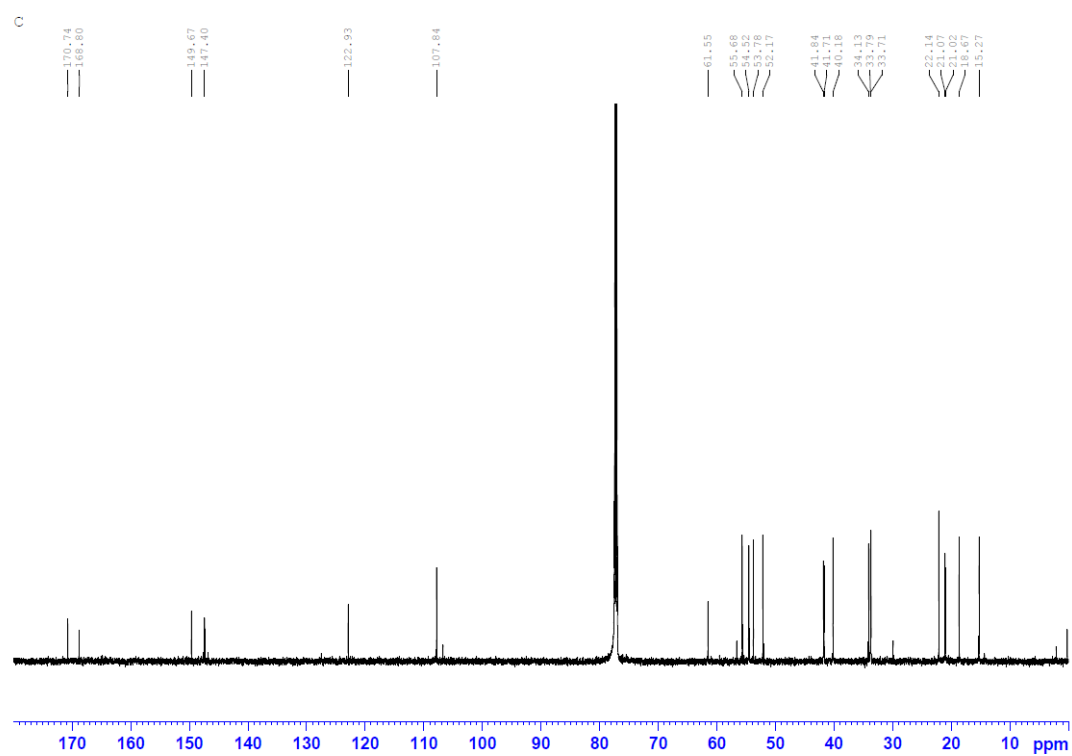


Figure S27. ¹³C-NMR spectrum of compound **6**.

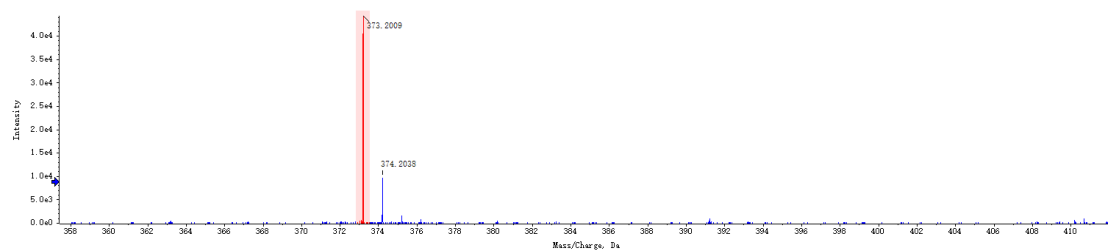


Figure S28. HRESIMS data of compound 6.

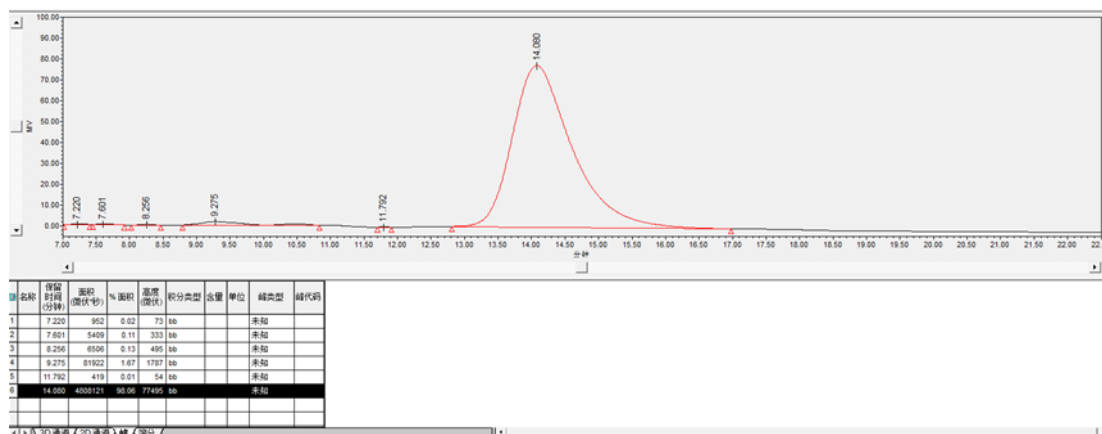


Figure S29. The purity of compound 6.

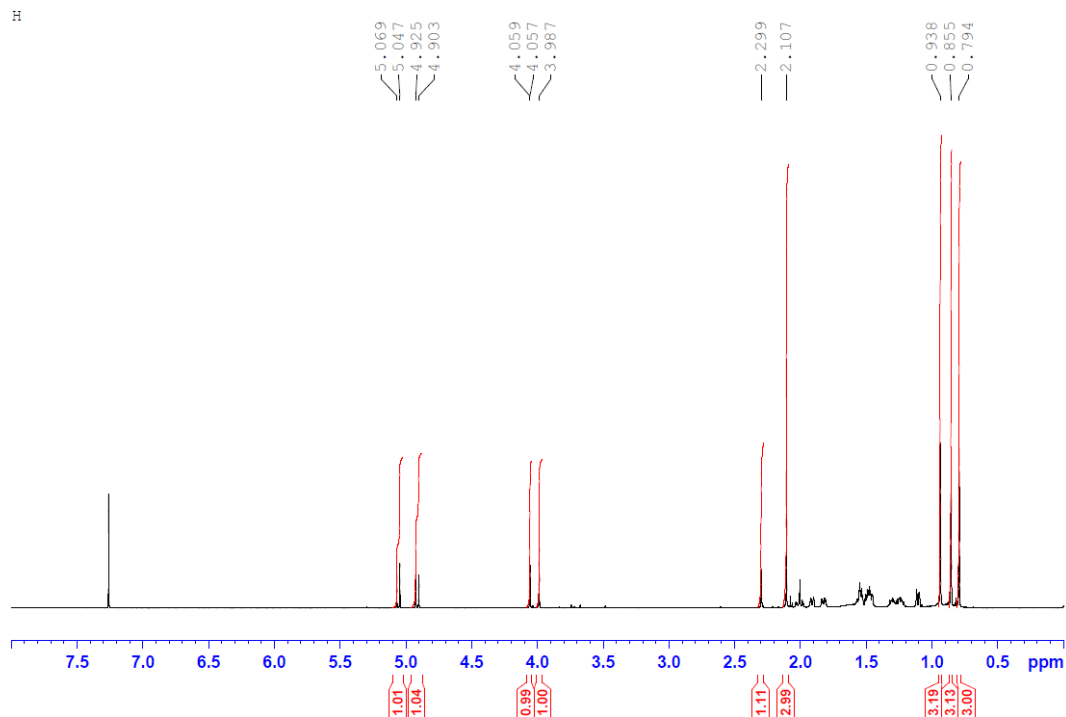


Figure S30. ^1H -NMR spectrum of compound 7.

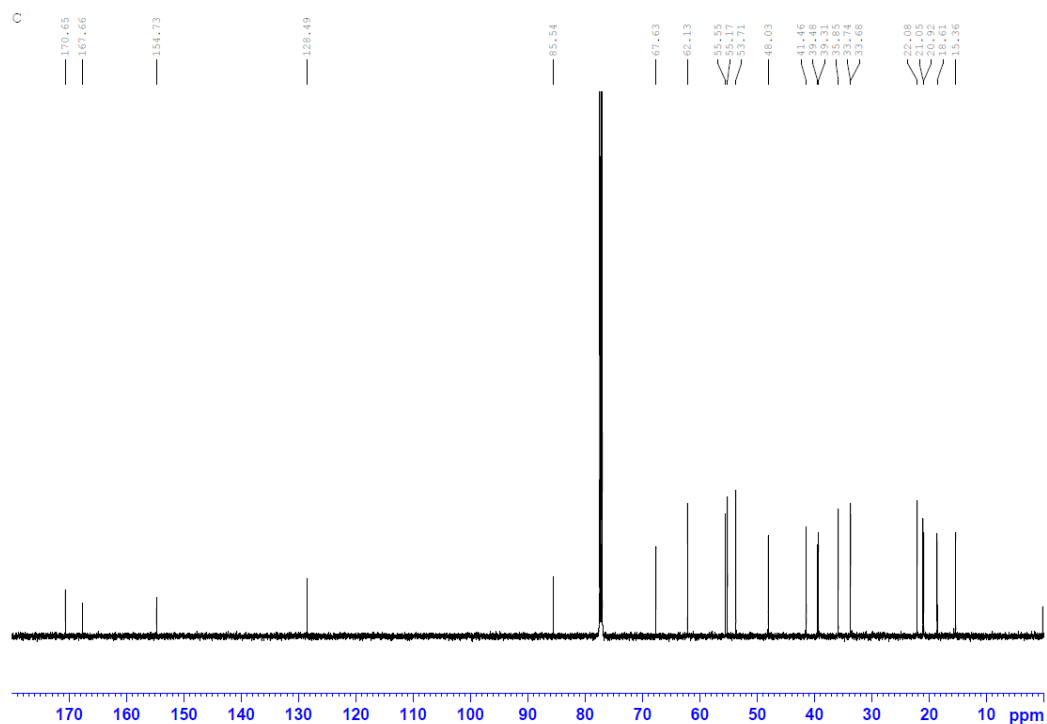


Figure S31. ^{13}C -NMR spectrum of compound **7**.

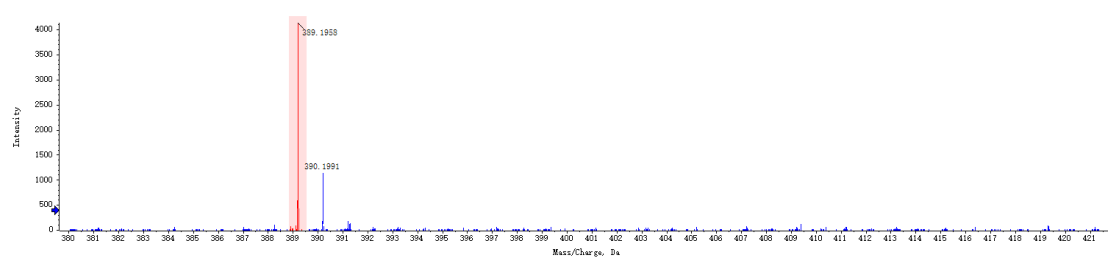


Figure S32. HRESIMS data of compound **7**.

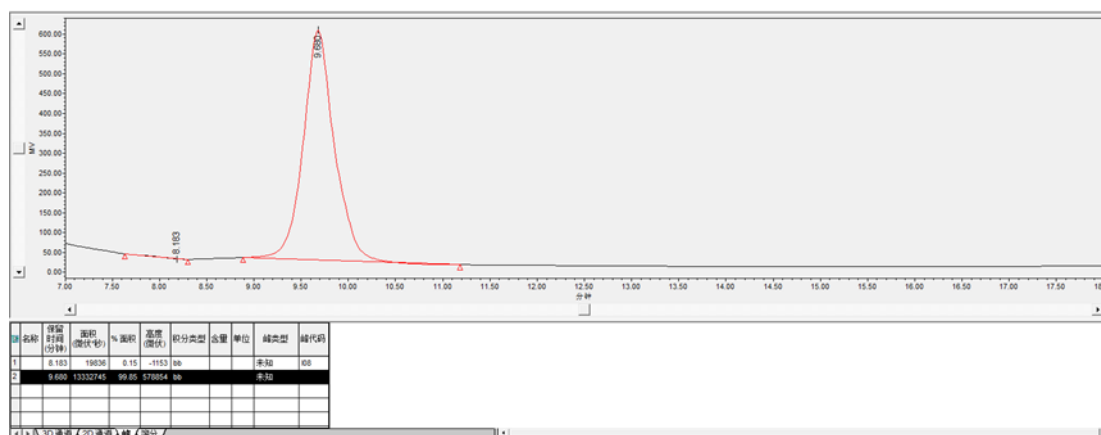


Figure S33. The purity of compound **8**.

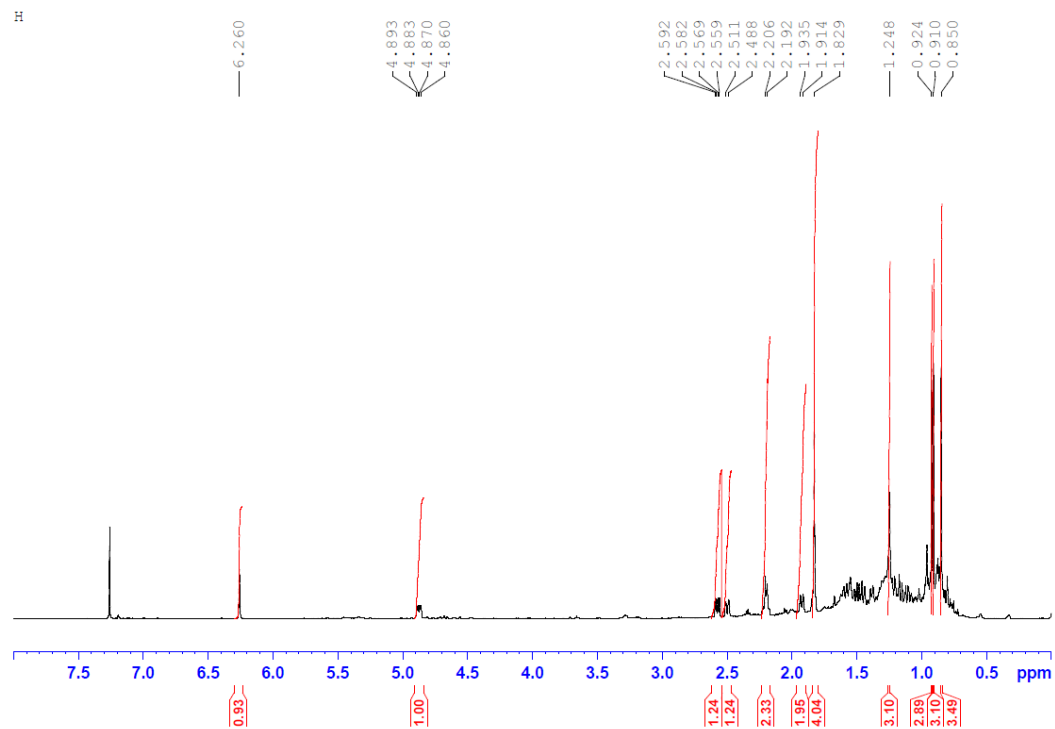


Figure S34. ¹H-NMR spectrum of compound **8**.

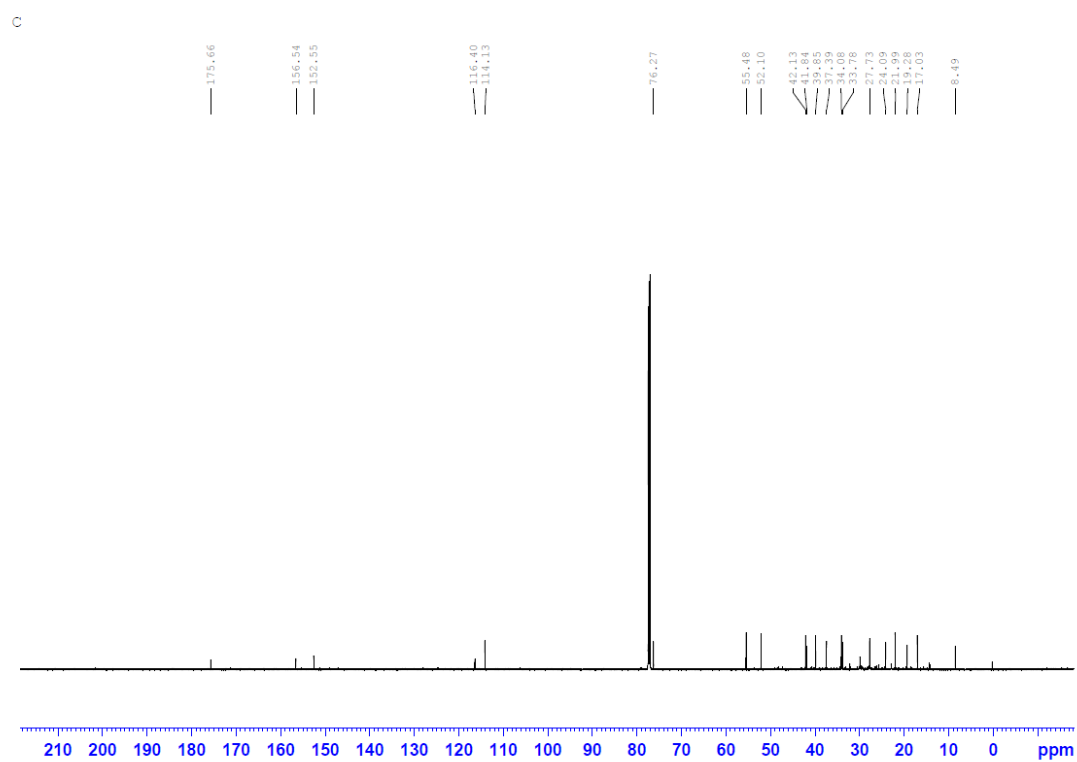


Figure S35. ¹³C-NMR spectrum of compound **8**.

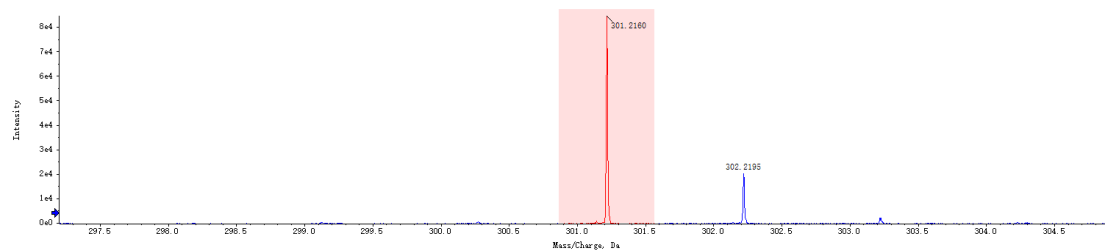


Figure S36. HRESIMS data of compound **8**.

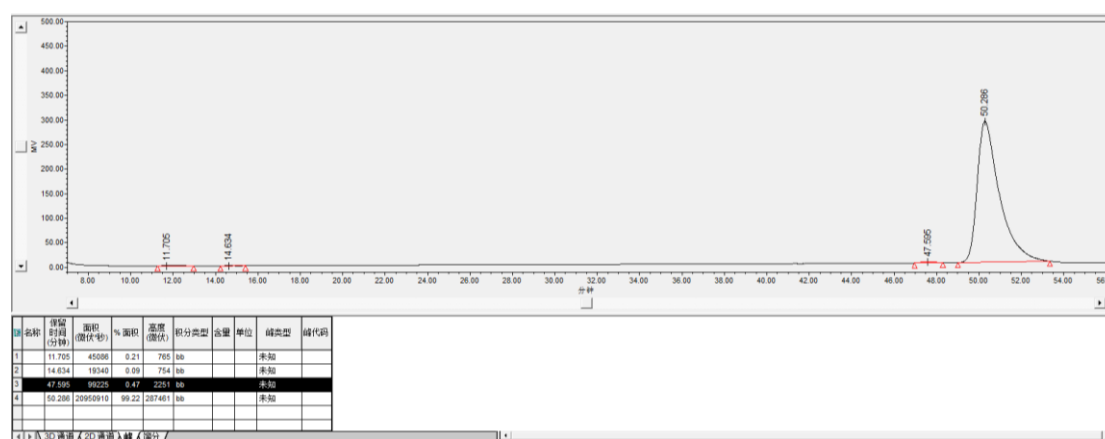


Figure S37. The purity of compound **8**.

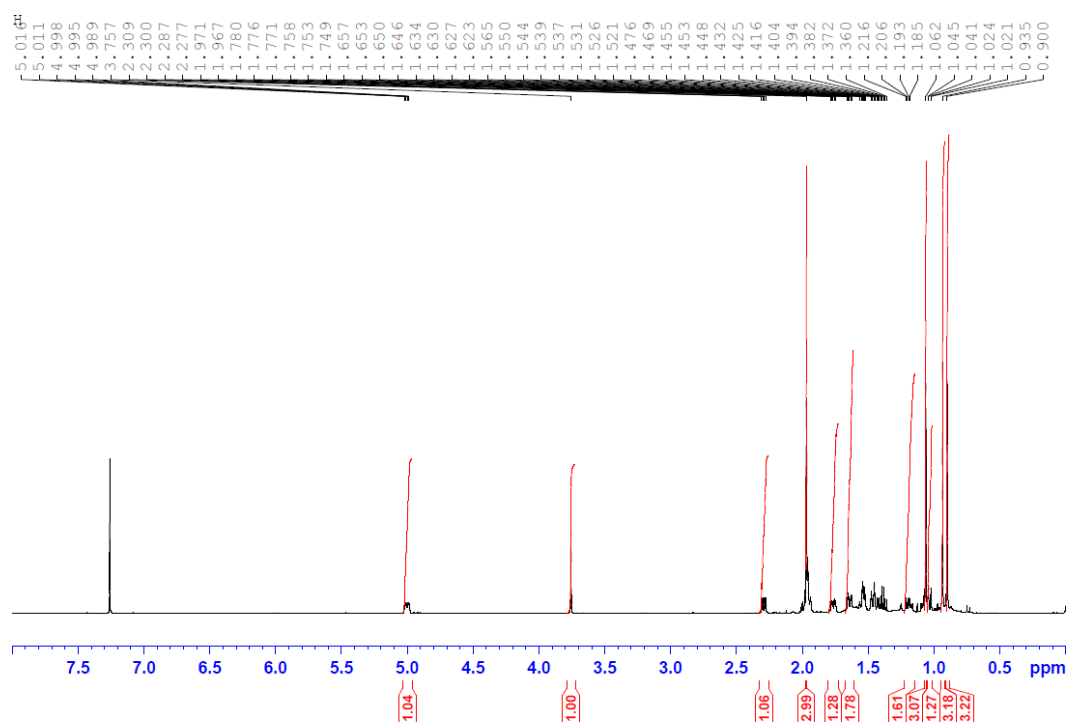


Figure S38. ¹H-NMR spectrum of compound **9**.

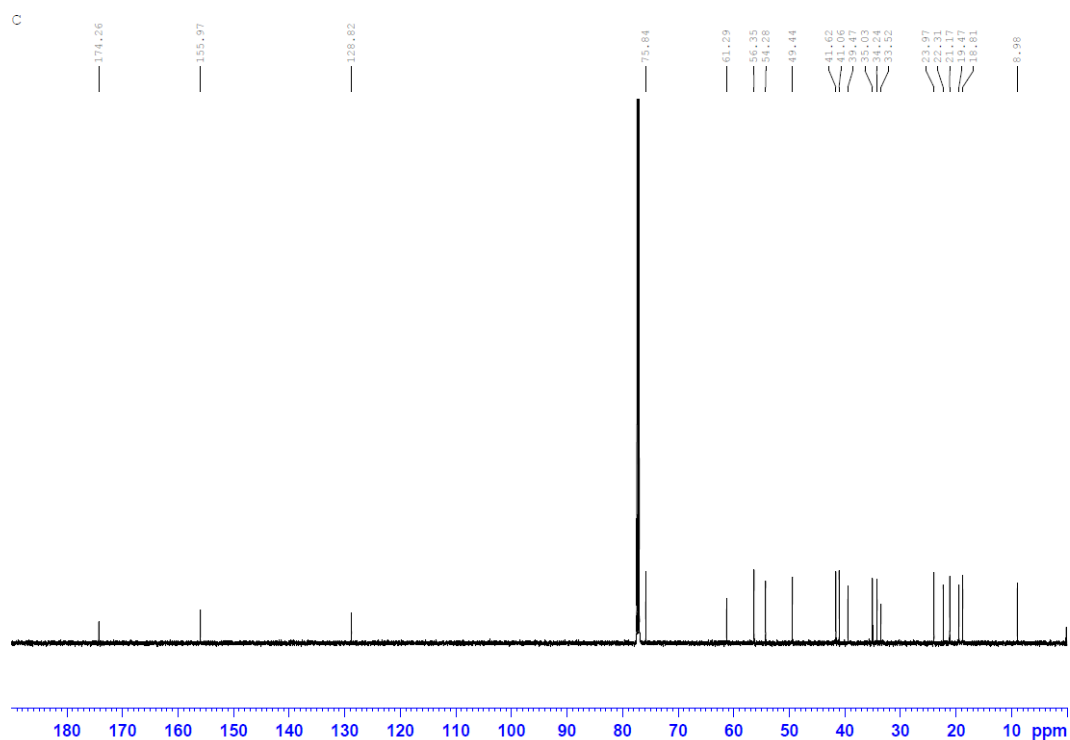


Figure S39. ¹³C-NMR spectrum of compound **9**.

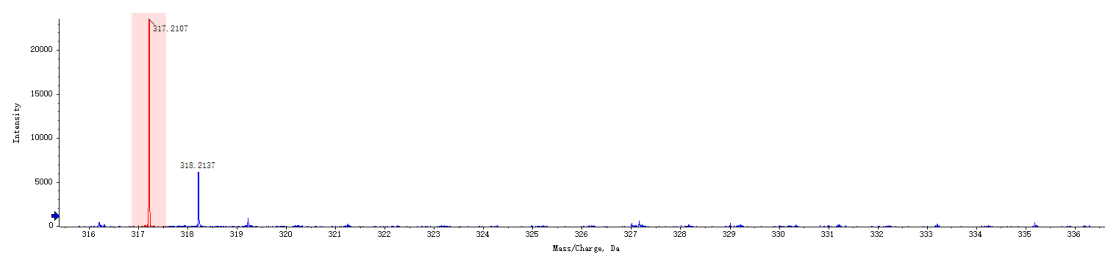
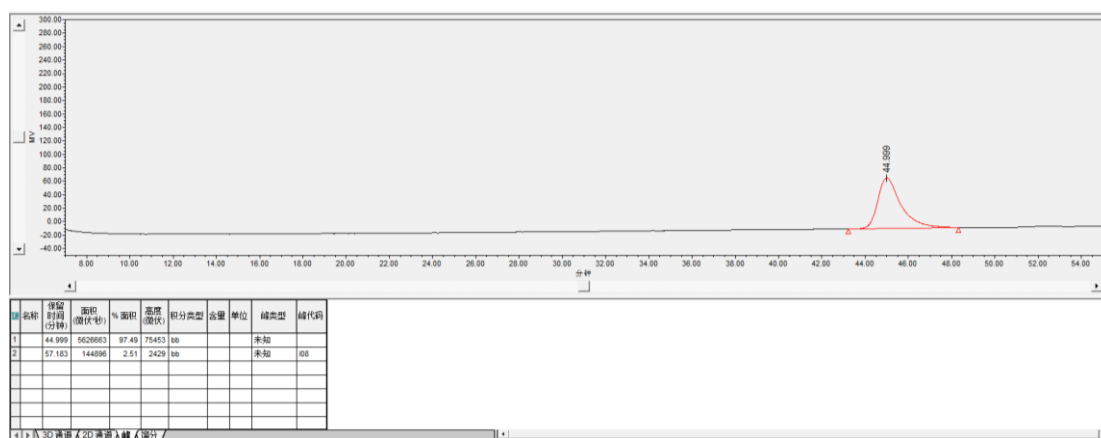


Figure S40. HRESIMS data of compound **9**.



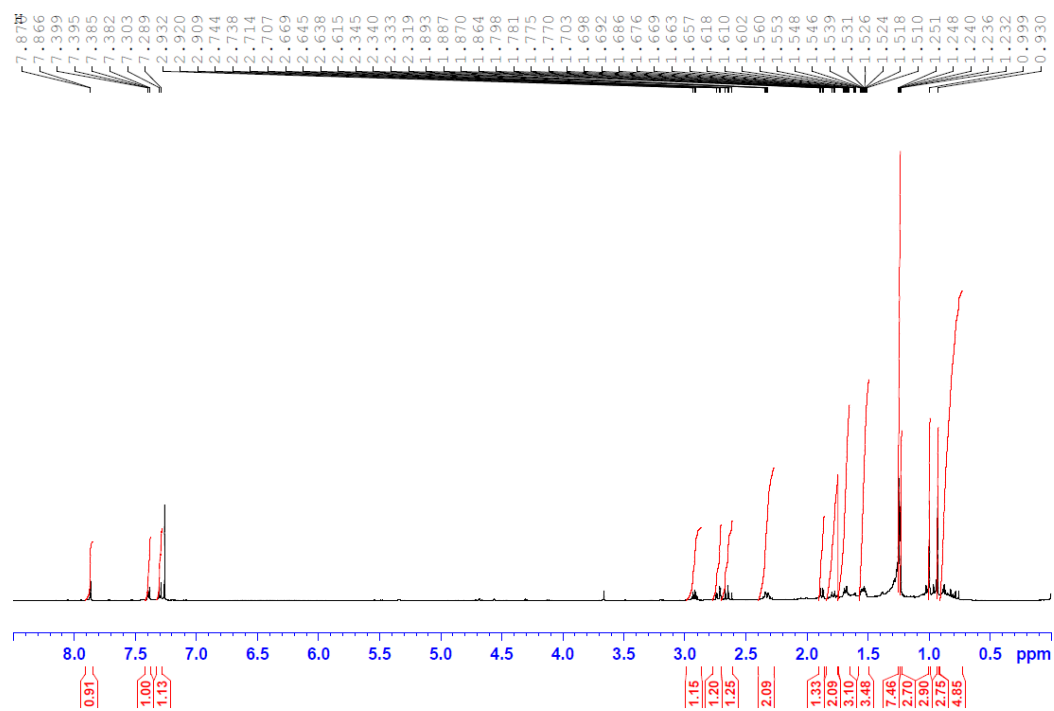


Figure S42. ¹H-NMR spectrum of compound **10**.

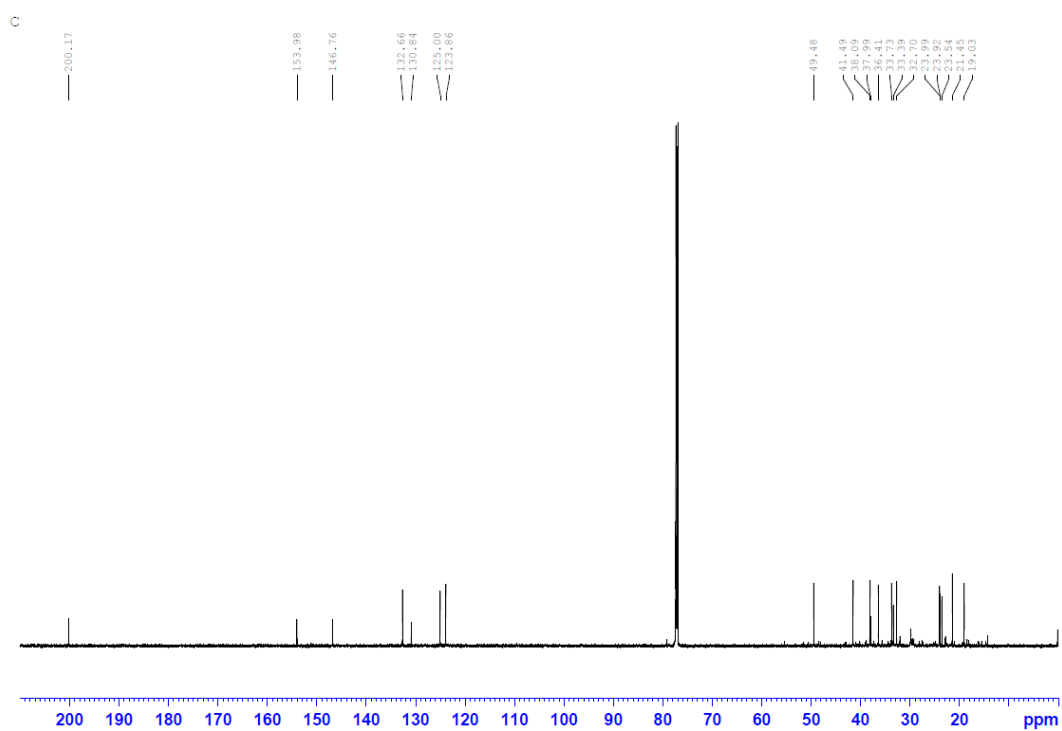


Figure S43. ¹³C-NMR spectrum of compound **10**.

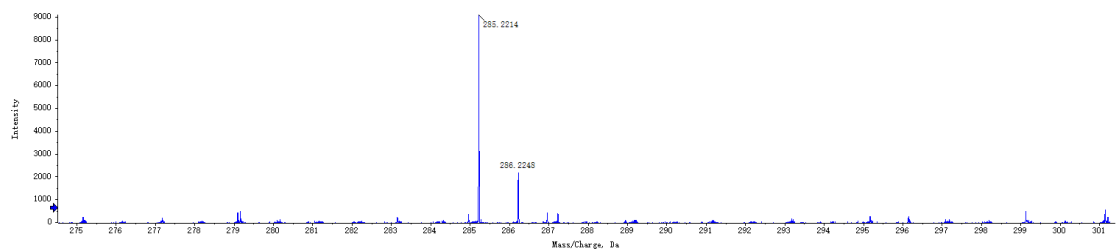


Figure S44. HRESIMS data of compound **10**.

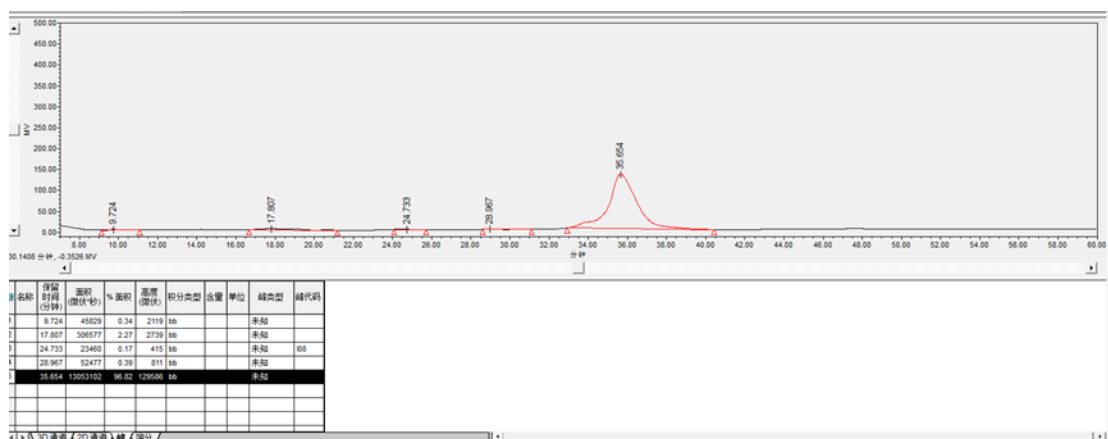


Figure S45. The purity of compound **10**.

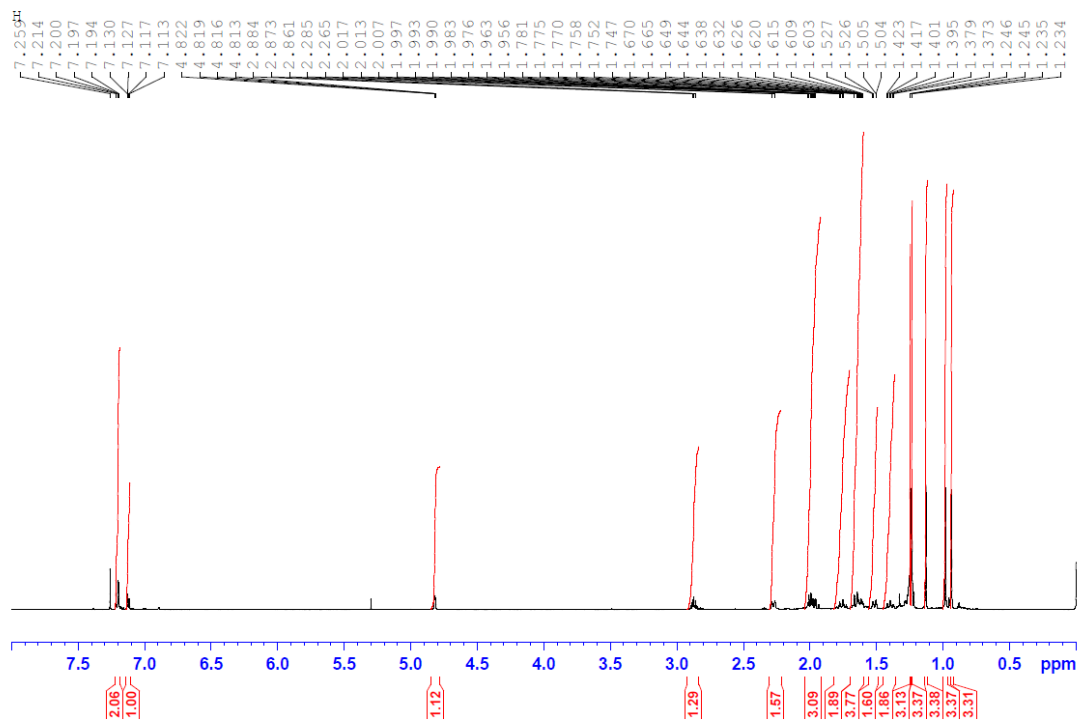


Figure S46. ^1H -NMR spectrum of compound **11**.

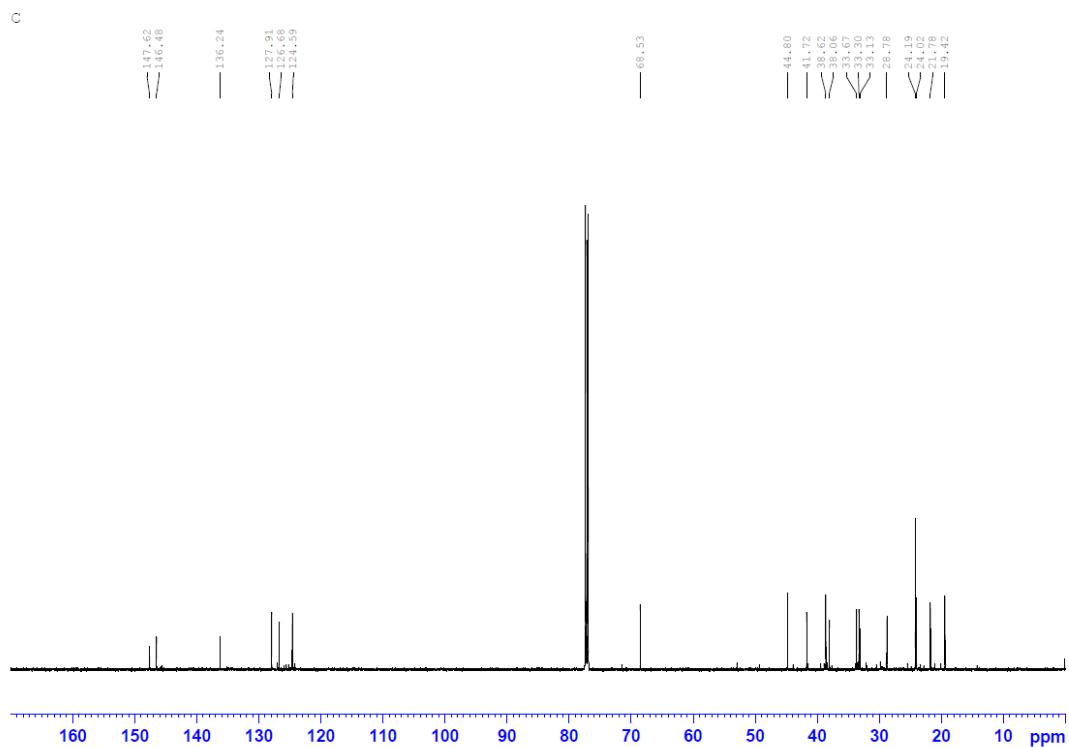


Figure S47. ¹³C-NMR spectrum of compound **11**.

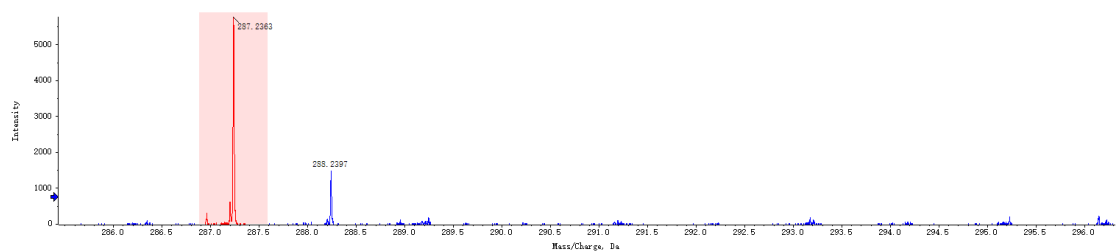


Figure S48. HRESIMS data of compound **11**.

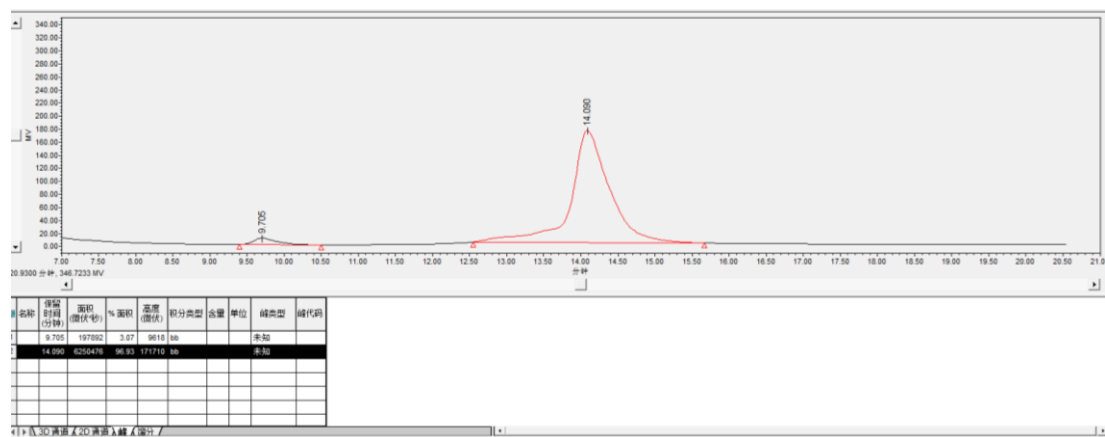


Figure S49. The purity of compound **11**.