

Supplementary Materials

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

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Abstract

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

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

Figure S3. DEPT spectrum of compound **1**.

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. ^{13}C -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. ^{13}C -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 **7**.

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

Figure S35. ^{13}C -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. ^{13}C -NMR spectrum of compound **9**.

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

Figure S41. The purity of compound **9**.

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

Figure S43. ^{13}C -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. ^{13}C -NMR spectrum of compound **11**.

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

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

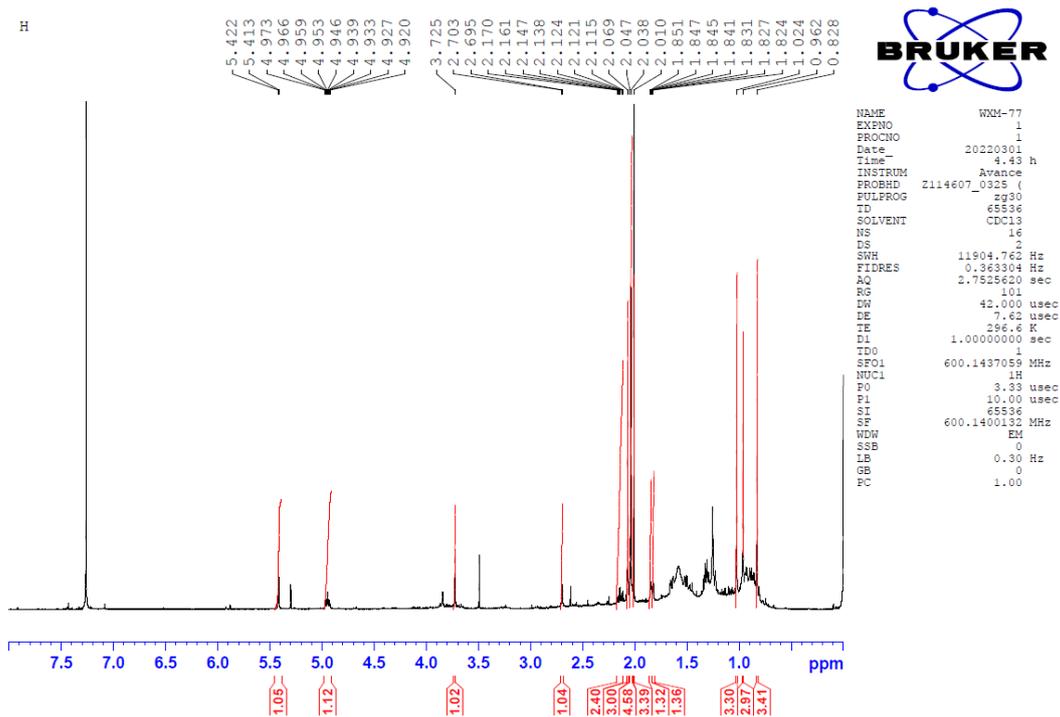


Figure S1. ¹H-NMR spectrum of compound 1.

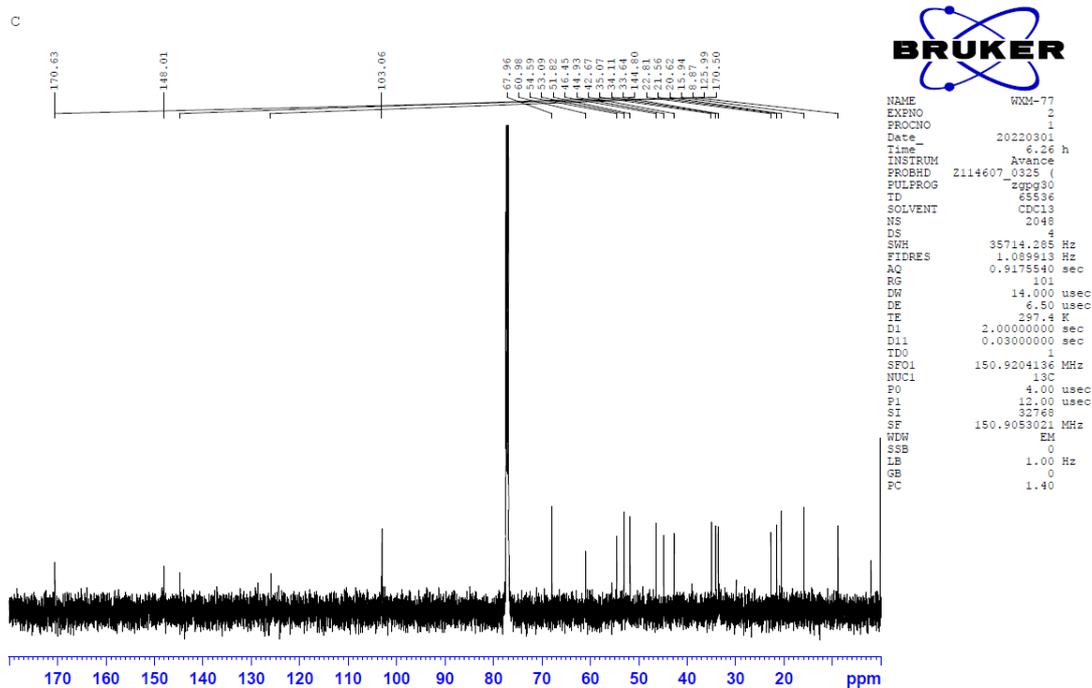
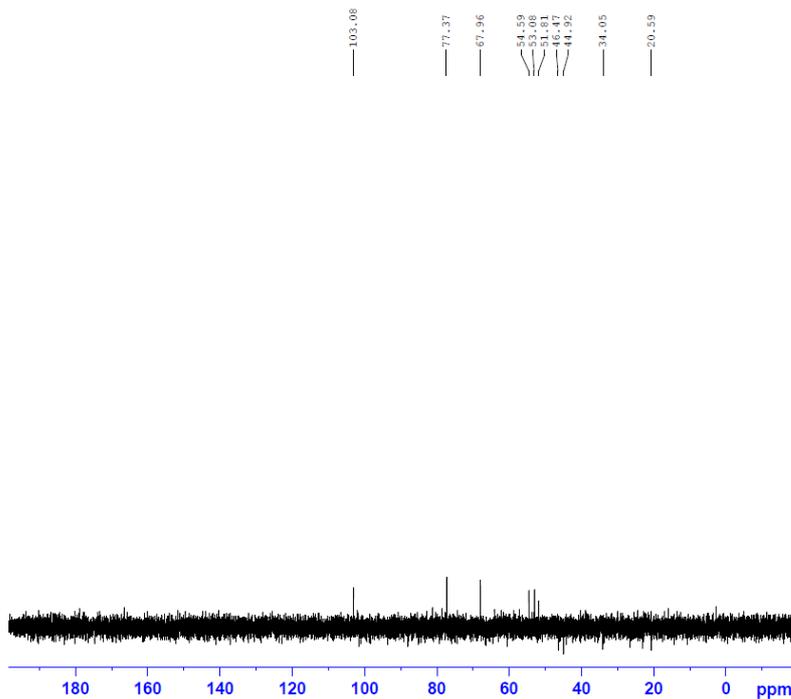


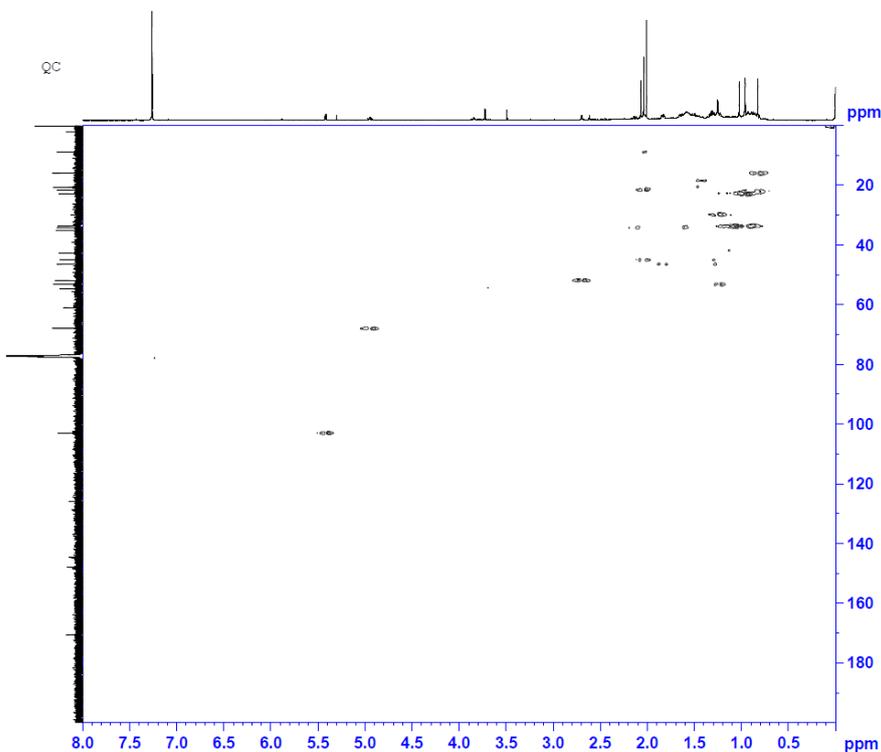
Figure S2. ¹³C-NMR spectrum of compound 1.

DEPT



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NAME WXM-77-2
EXPNO 12
PROCNO 1
Date_ 20220323
Time_ 17.57 h
INSTRUM Avance
PROBHD Z114607_0325 (
PULPROG deptcp135
TD 65536
SOLVENT CDCl3
NS 256
DS 8
SWH 35714.285 Hz
FIDRES 1.088913 Hz
AQ 0.9175540 sec
RG 101
DW 14.000 usec
DE 6.50 usec
TE 295.3 K
CNST2 145.0000000
D1 2.0000000 sec
D2 0.00344828 sec
D12 0.00002000 sec
TDO 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 WXM-77
EXPNO 5
PROCNO 1
Date_ 20220303
Time_ 17.20 h
INSTRUM Avance
PROBHD Z114607_0325 (
PULPROG hsqcdeTgpcisp2.3
TD 2048
SOLVENT CDCl3
NS 20
DS 32
SWH 7812.500 Hz
FIDRES 7.628395 Hz
AQ 0.1311220 sec
RG 101
DW 64.000 usec
DE 6.50 usec
TE 295.9 K
CNST2 145.0000000
CNST17 -0.5000000 sec
D0 0.00000300 sec
D1 2.00000000 sec
D4 0.00172414 sec
D11 0.003000000 sec
D16 0.000200000 sec
D21 0.003600000 sec
D24 0.000890000 sec
IND0 0.00001390 sec
NDO 2
TD 256
SFO1 150.9204 MHz
FIDRES 141.530792 Hz
SW 240.073 ppm
F1MODE Echo-Antiecho
SI 1024
SF 600.1400145 MHz
WDW QSIINE
SSB 2
LB 0.00 Hz
GB 0
PC 1.40
SI 1024
MCC2 echo-antiecho
SF 150.9052832 MHz
WDW QSIINE
SSB 2
LB 0.00 Hz
GB 0
```

Figure S4. HSQC spectrum of compound 1.

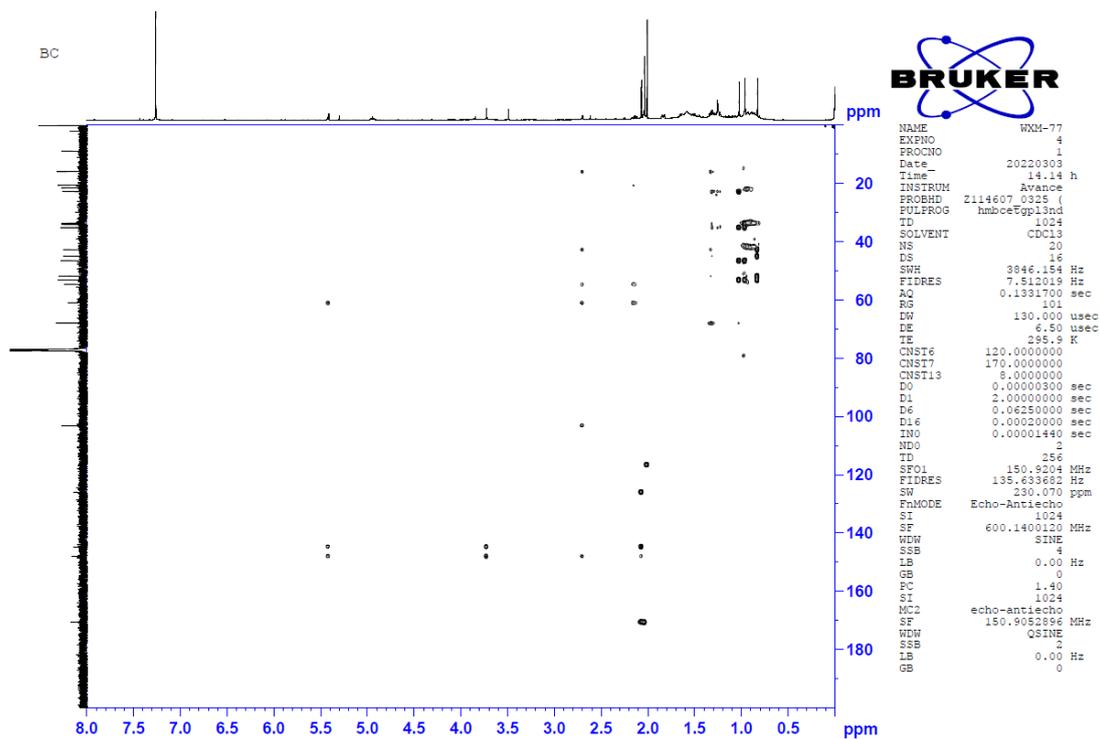


Figure S5. HMBC spectrum of compound 1.

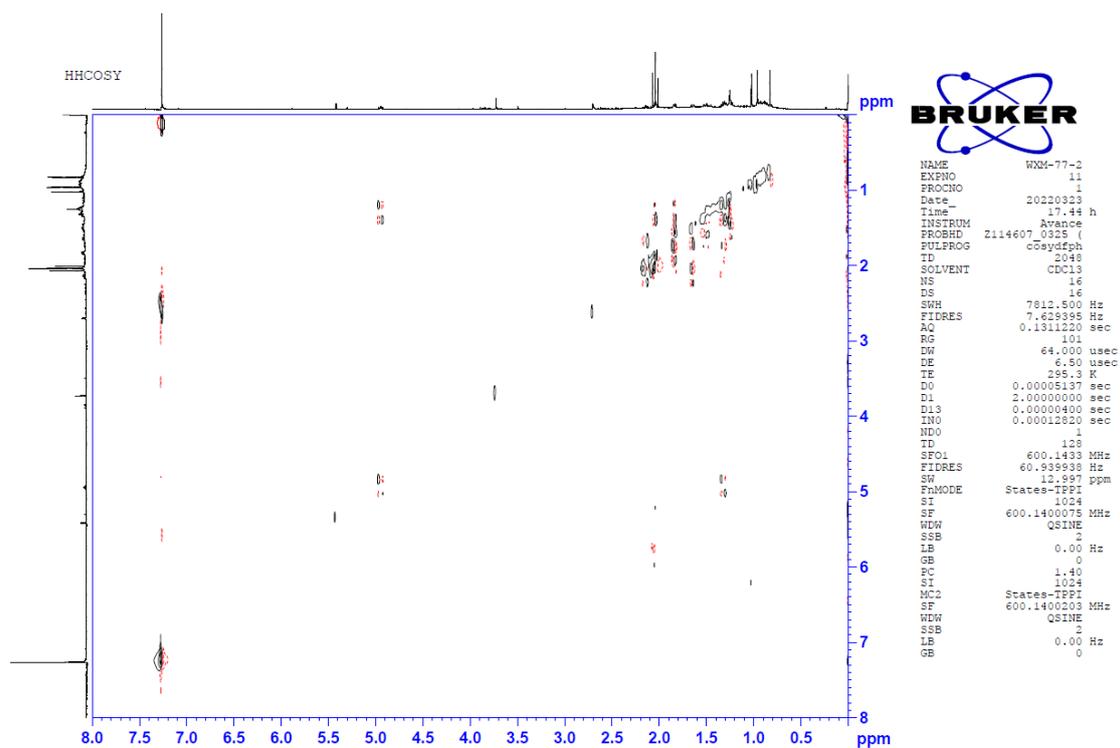


Figure S6. ^1H - ^1H COSY spectrum of compound 1.

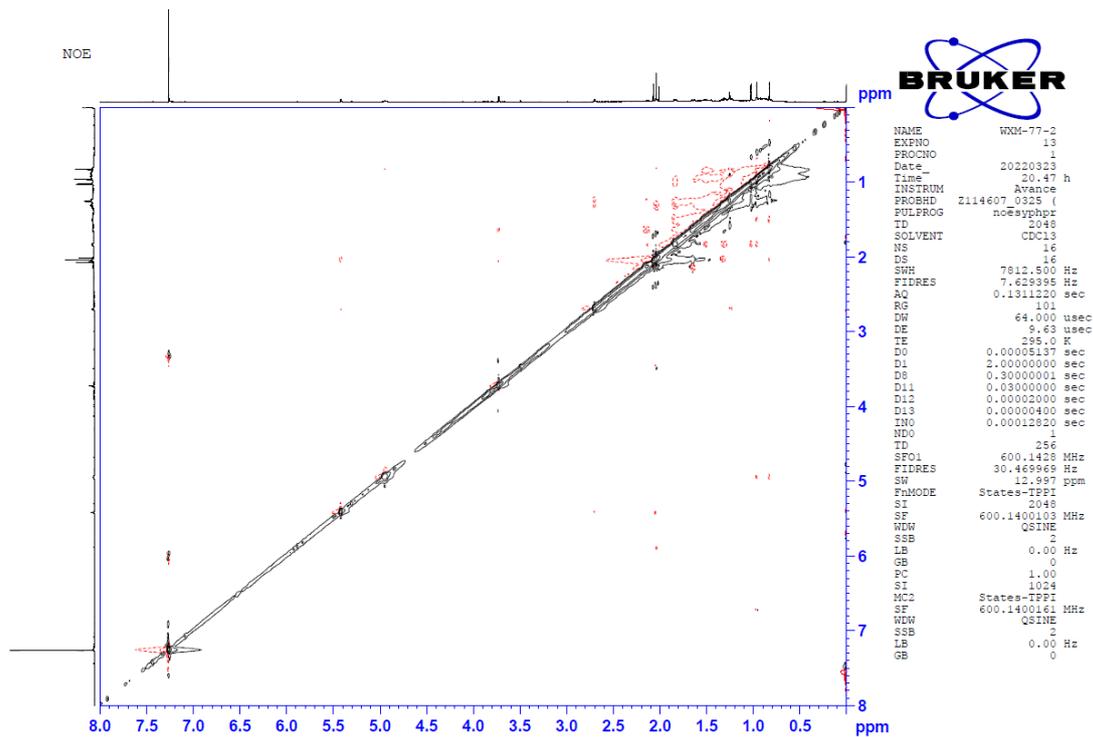


Figure S7. NOESY spectrum of compound 1.

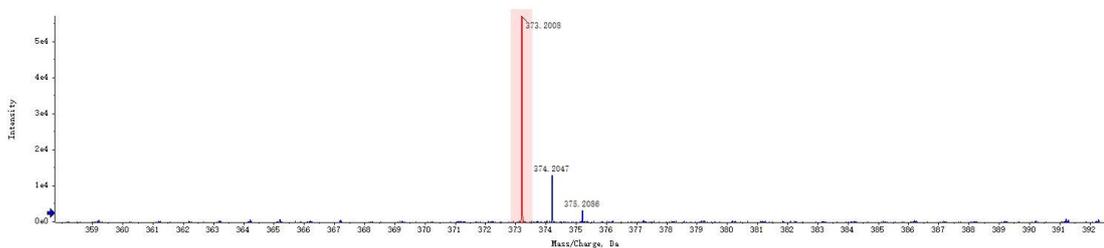


Figure S8. HRESIMS data of compound 1.

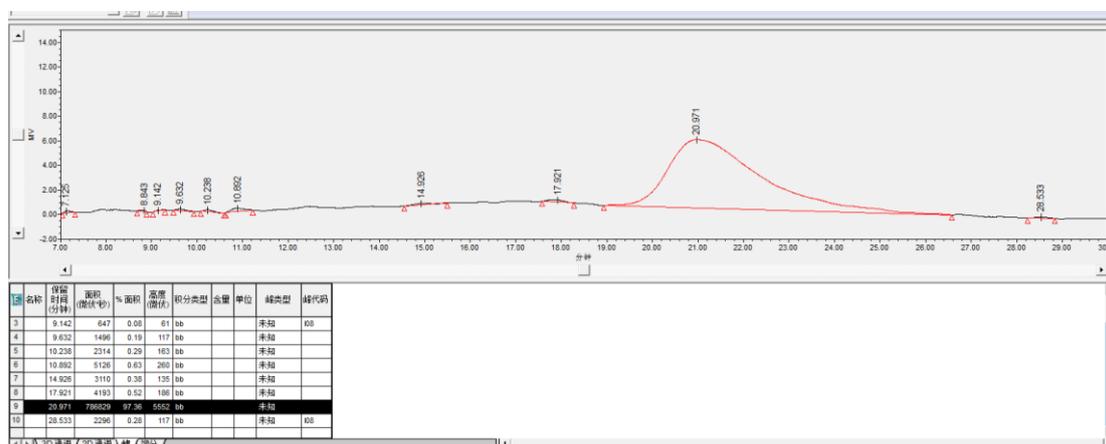


Figure S9. The purity of compound 1.

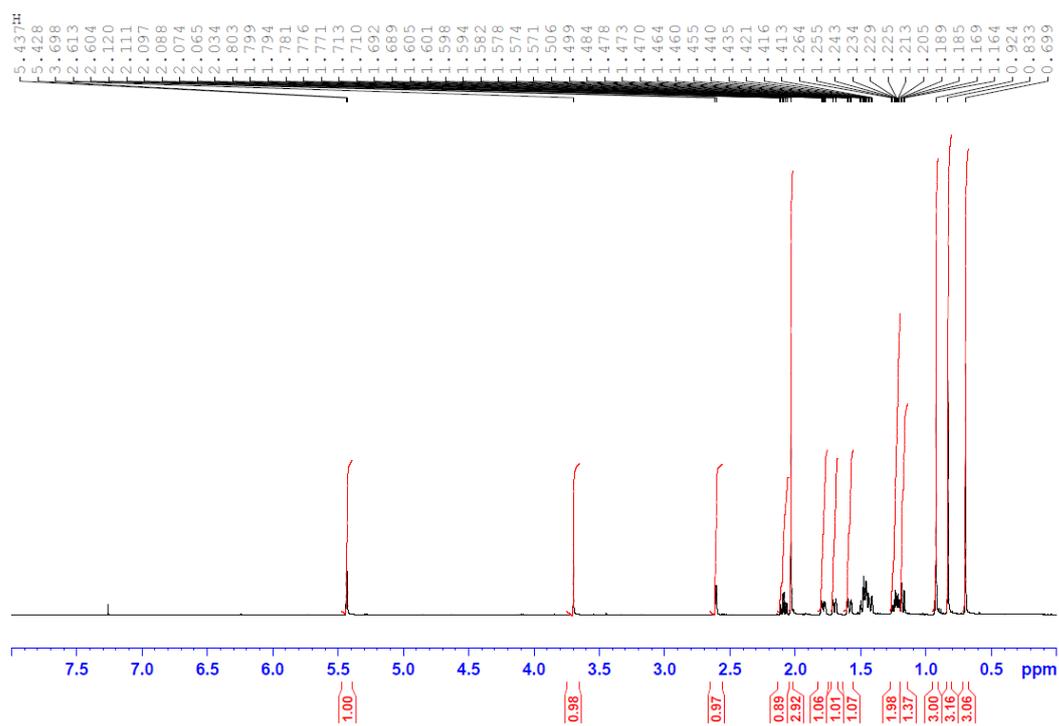


Figure S10. ^1H -NMR spectrum of compound **2**.

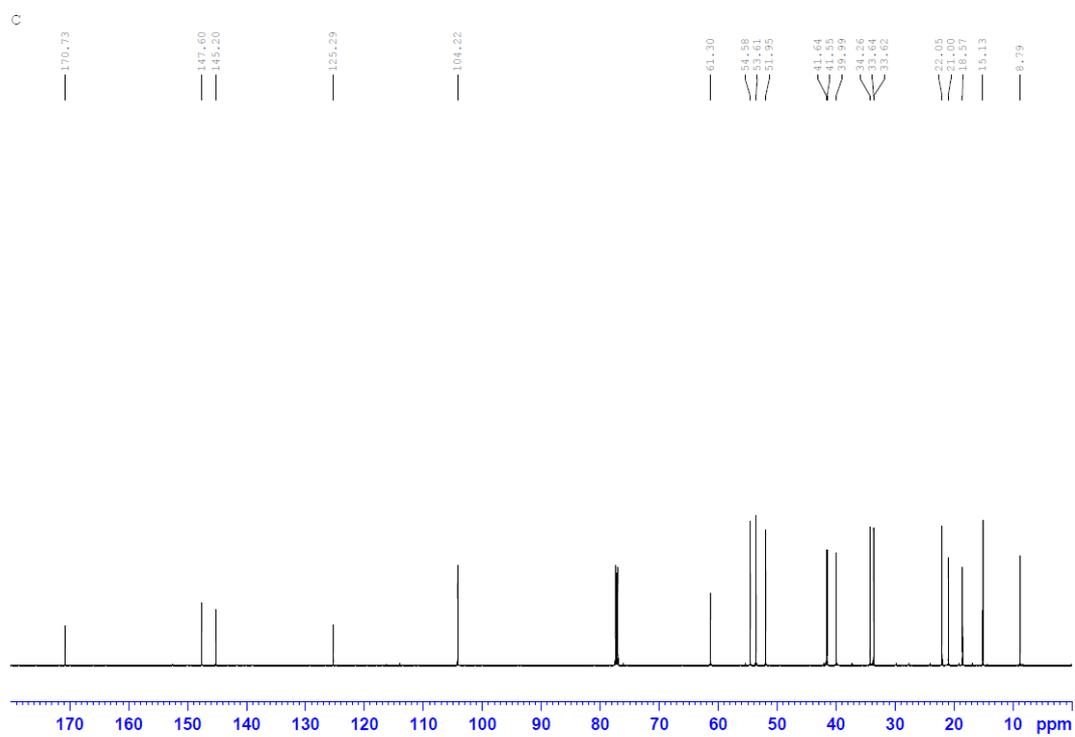


Figure S11. ^{13}C -NMR spectrum of compound **2**.

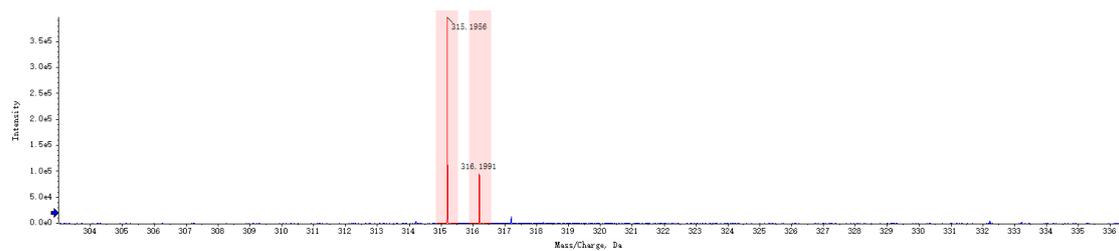


Figure S12. HRESIMS data of compound 2.

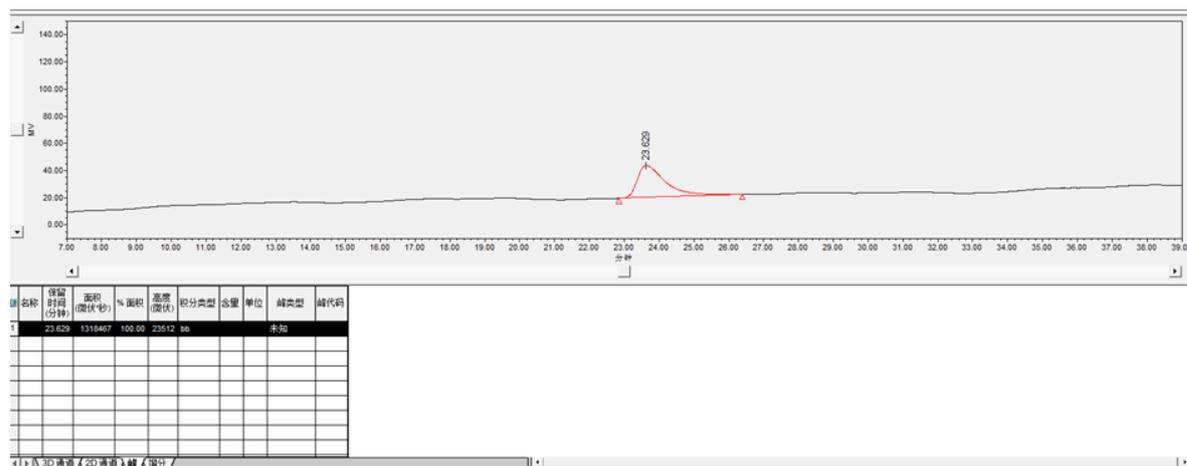


Figure S13. The purity of compound 2.

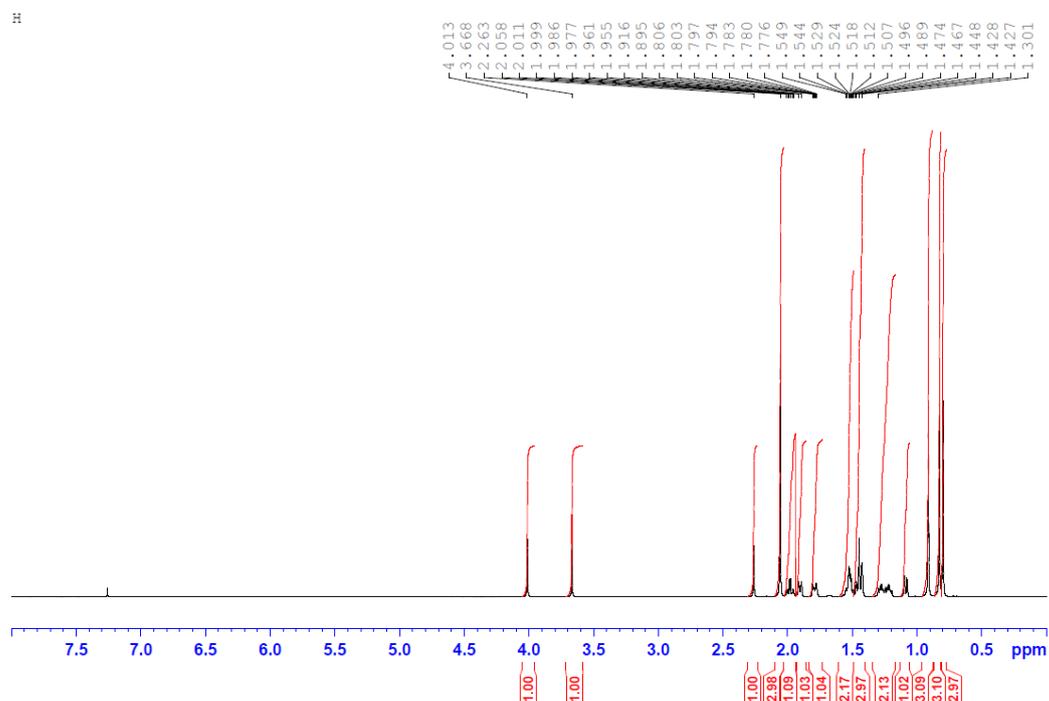


Figure S14. ¹H-NMR spectrum of compound 3.

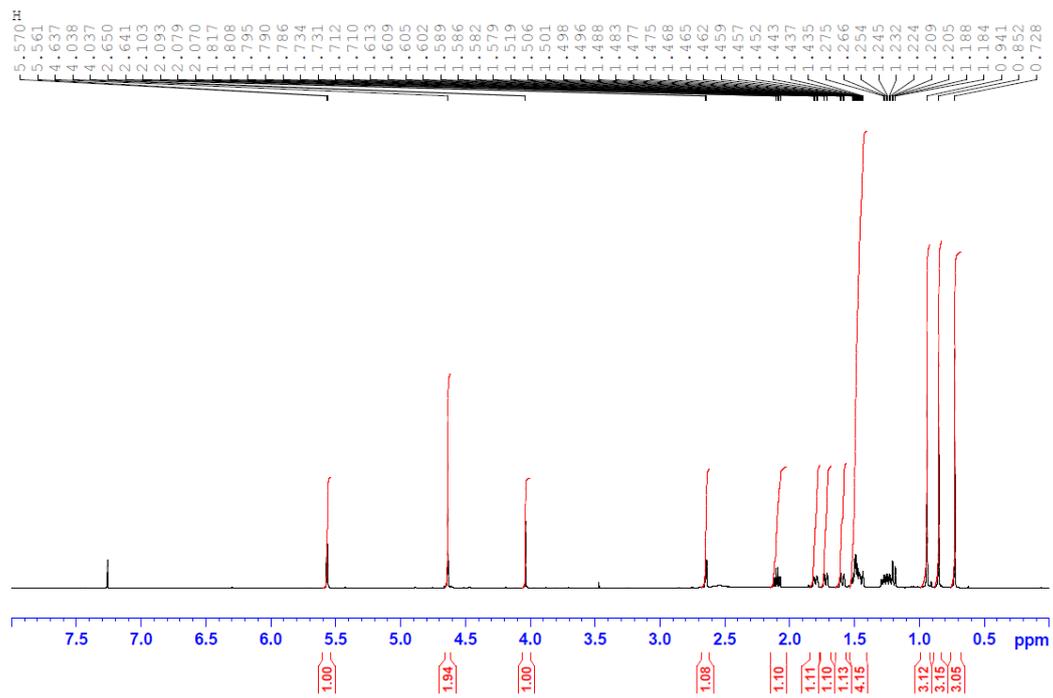


Figure S18. ^1H -NMR spectrum of compound **4**.

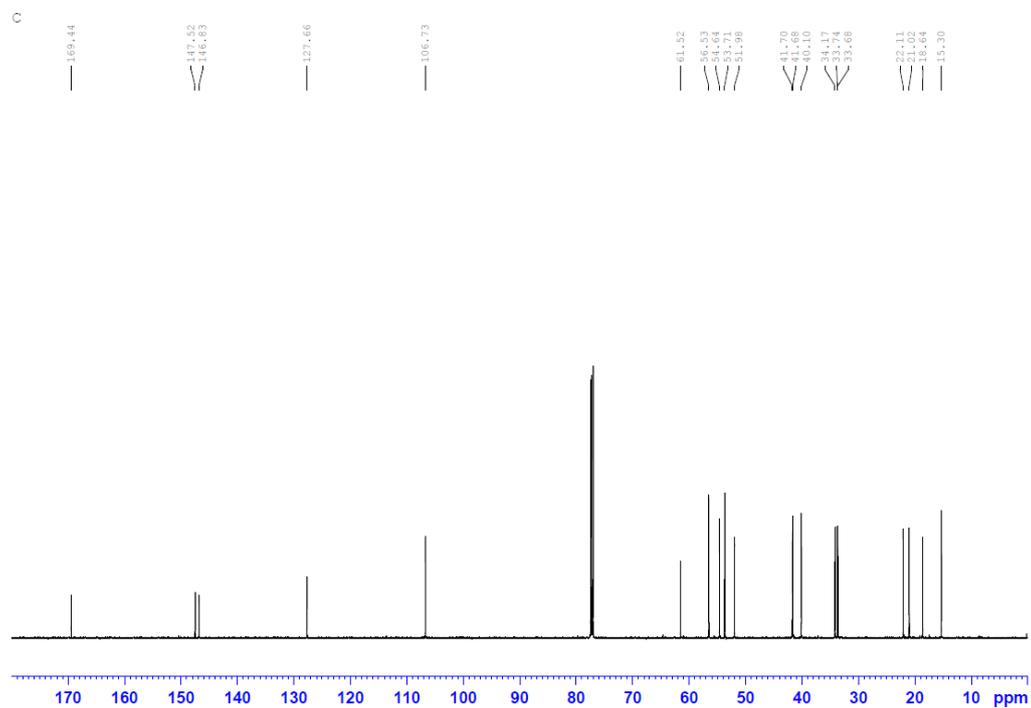


Figure S19. ^{13}C -NMR spectrum of compound **4**.

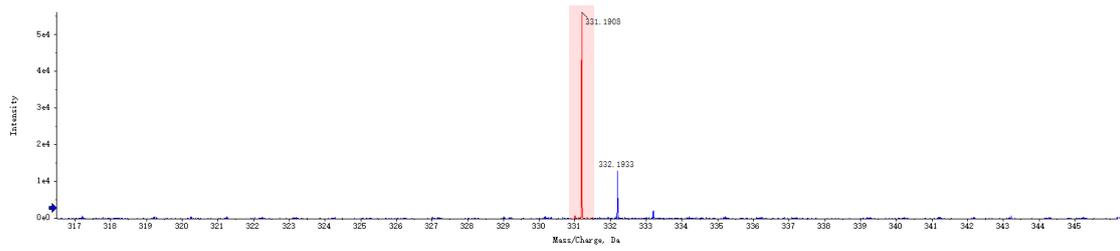


Figure S20. HRESIMS data of compound **4**.

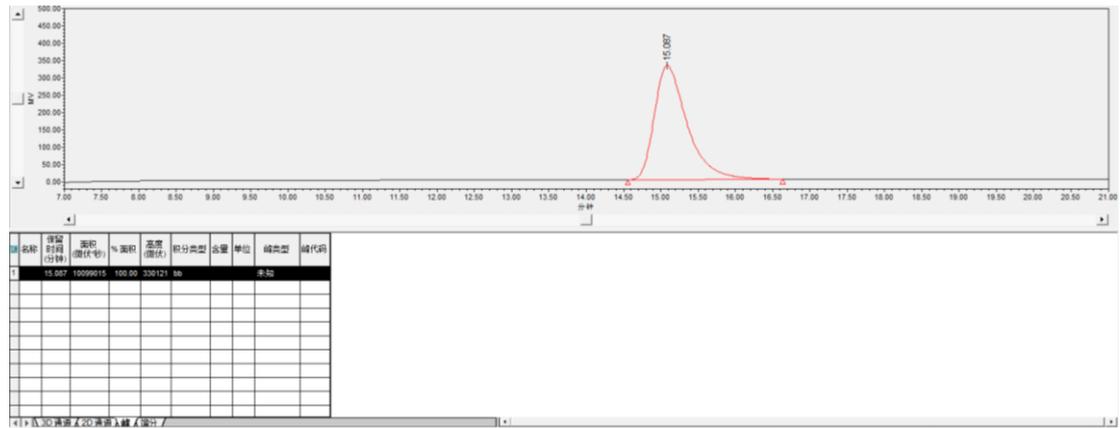


Figure S21. The purity of compound **4**.

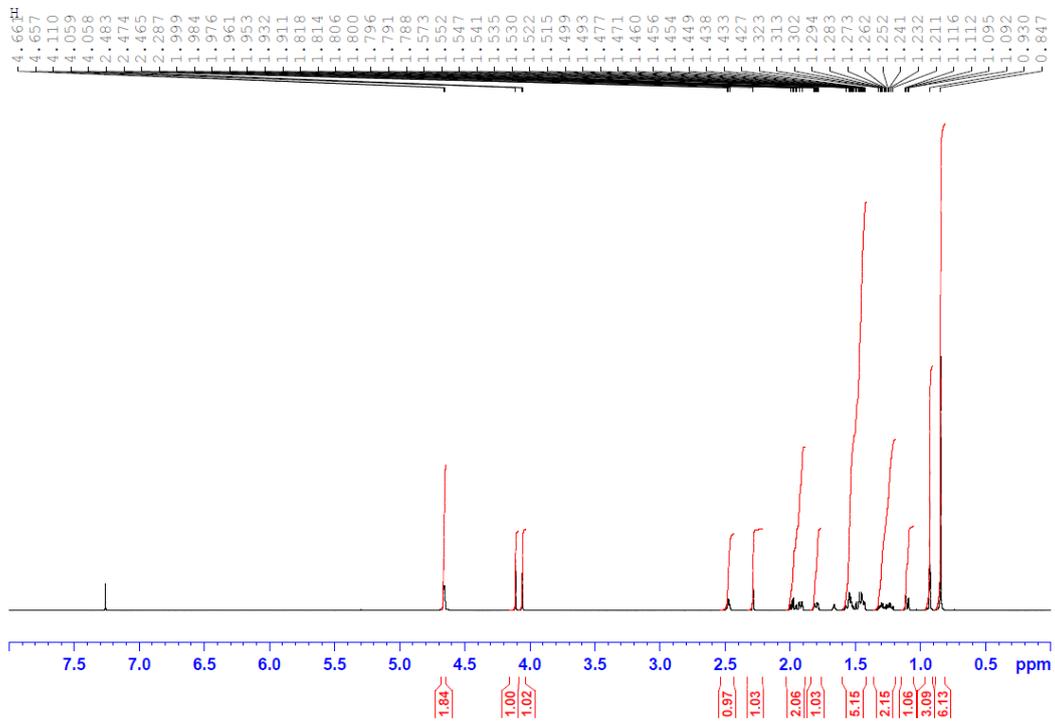


Figure S22. $^1\text{H-NMR}$ spectrum of compound **5**.

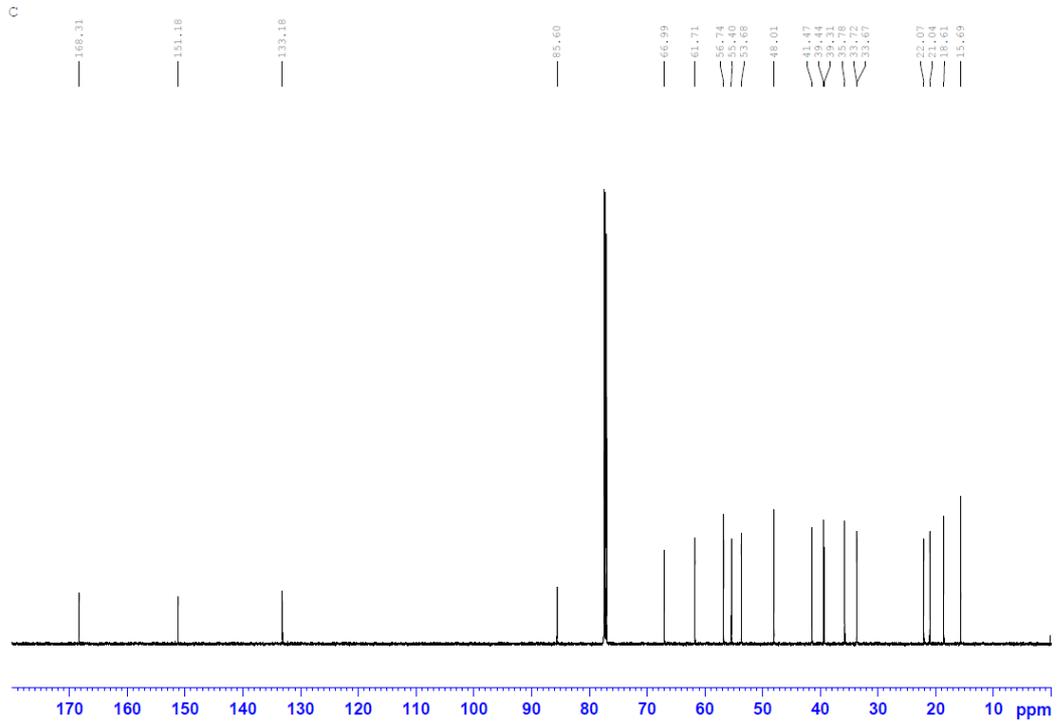


Figure S23. ^{13}C -NMR spectrum of compound **5**.

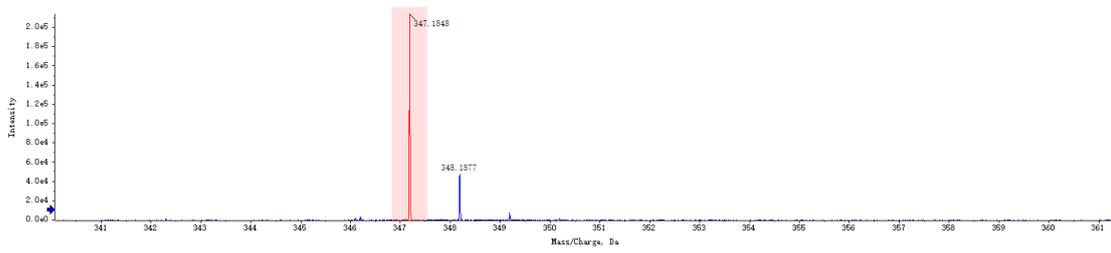


Figure S24. HRESIMS data of compound **5**.

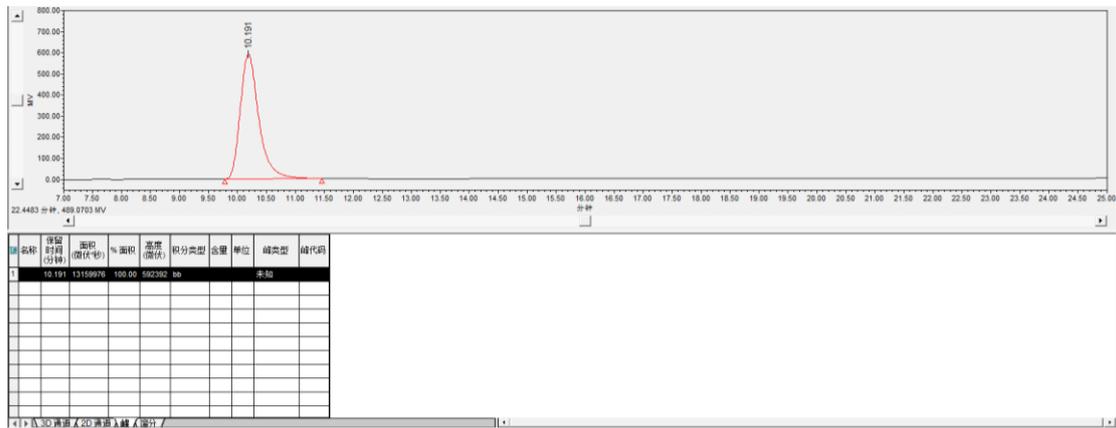


Figure S25. The purity of compound **5**.

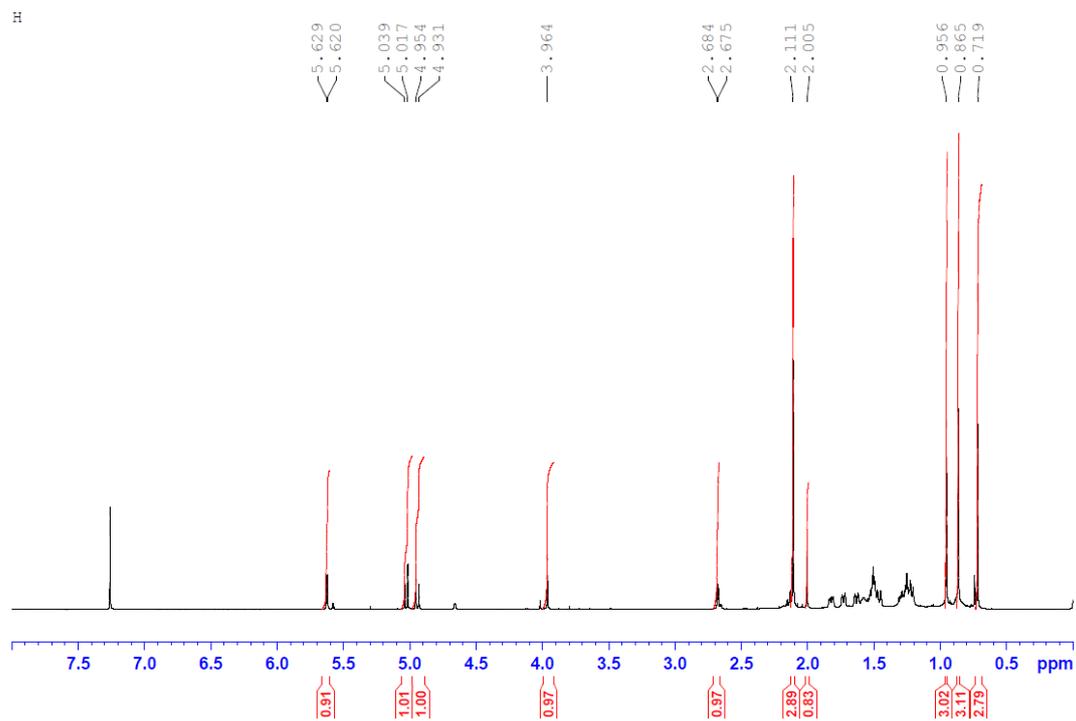


Figure S26. ^1H -NMR spectrum of compound **6**.

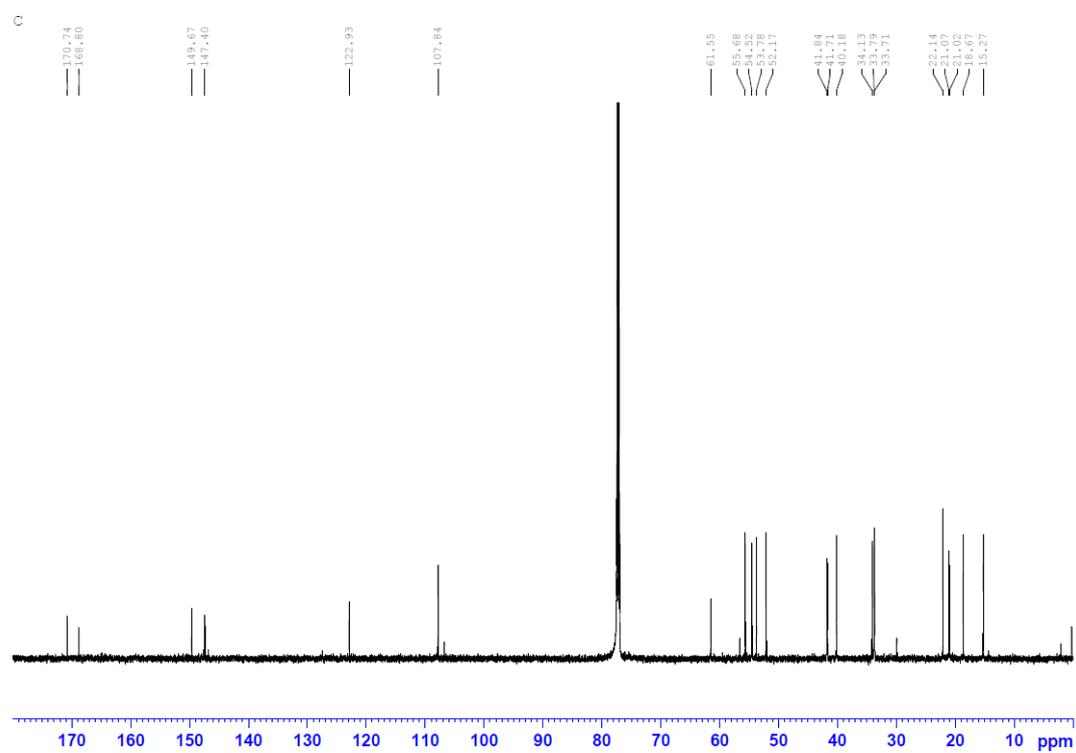


Figure S27. ^{13}C -NMR spectrum of compound **6**.

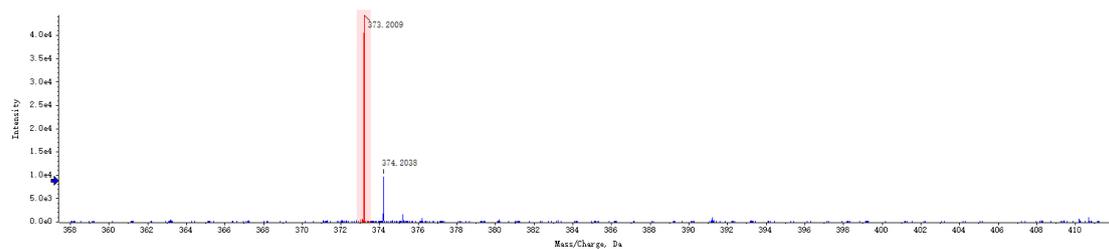


Figure S28. HRESIMS data of compound 6.

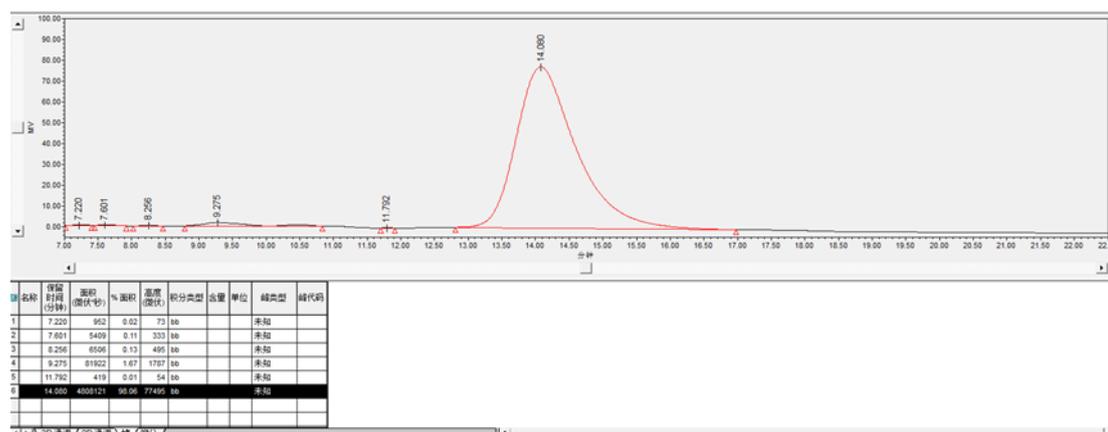


Figure S29. The purity of compound 6.

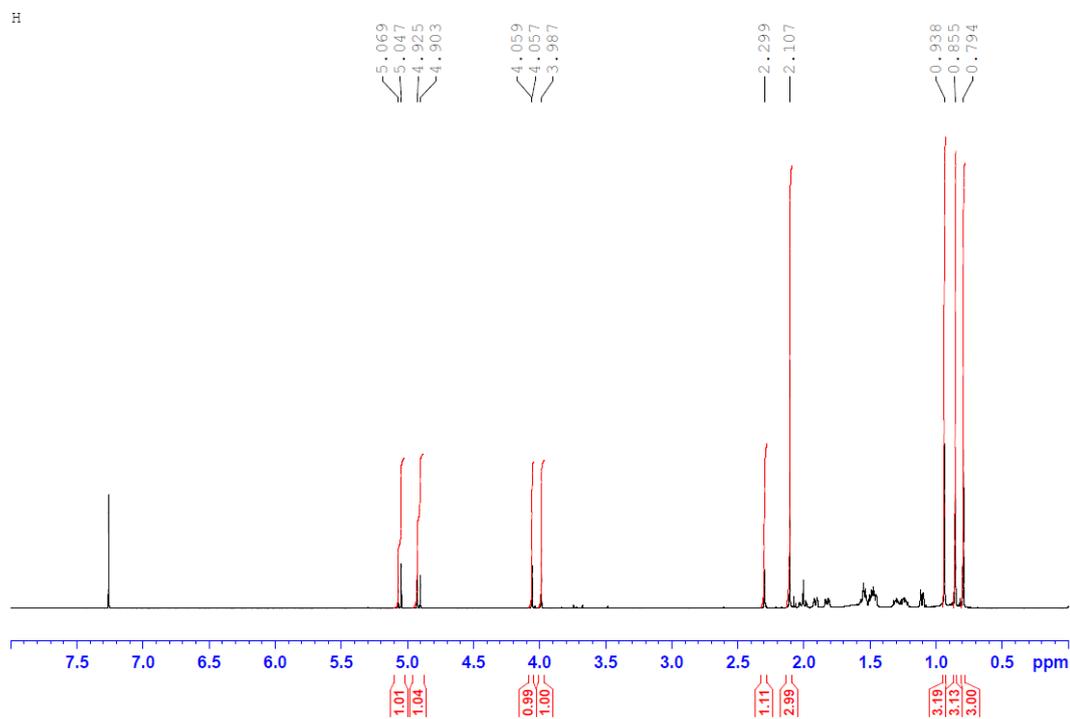


Figure S30. $^1\text{H-NMR}$ spectrum of compound 7.

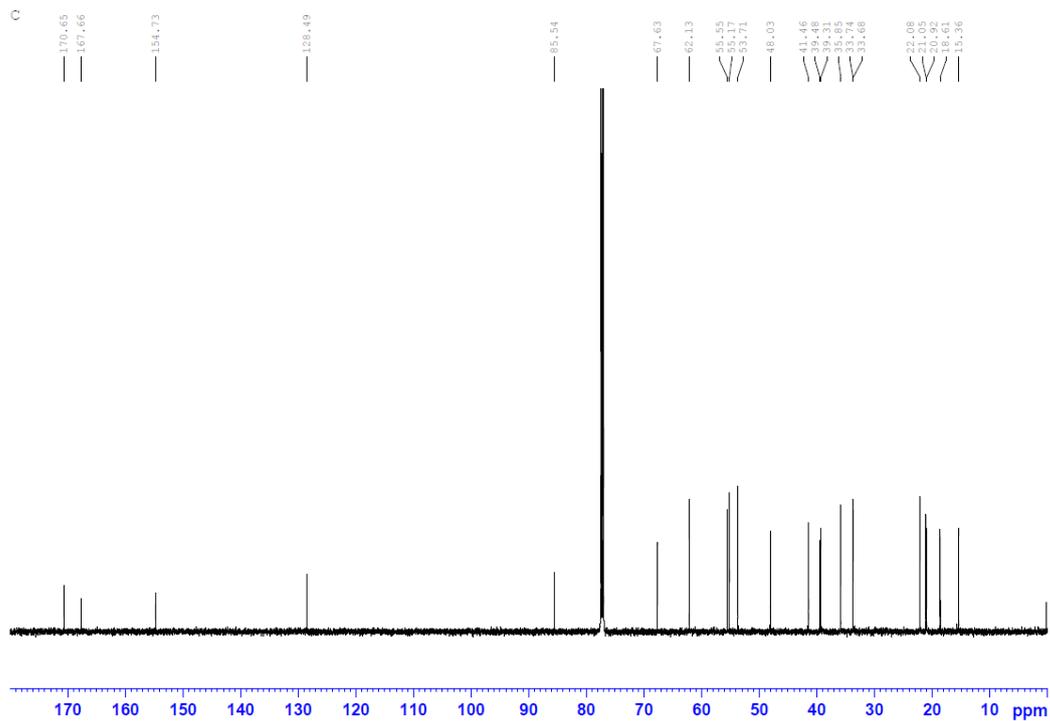


Figure S31. ^{13}C -NMR spectrum of compound **7**.

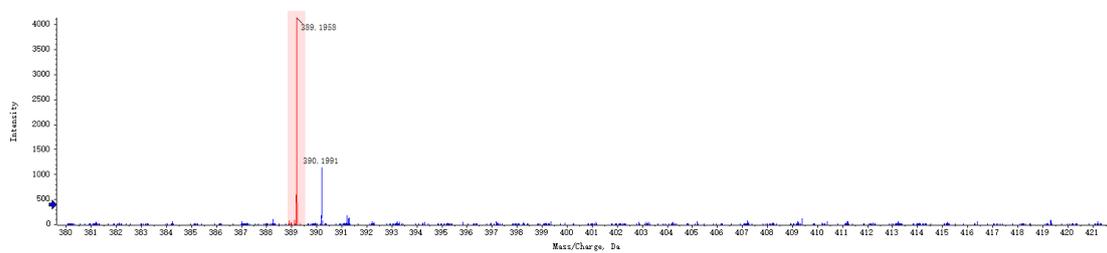


Figure S32. HRESIMS data of compound **7**.

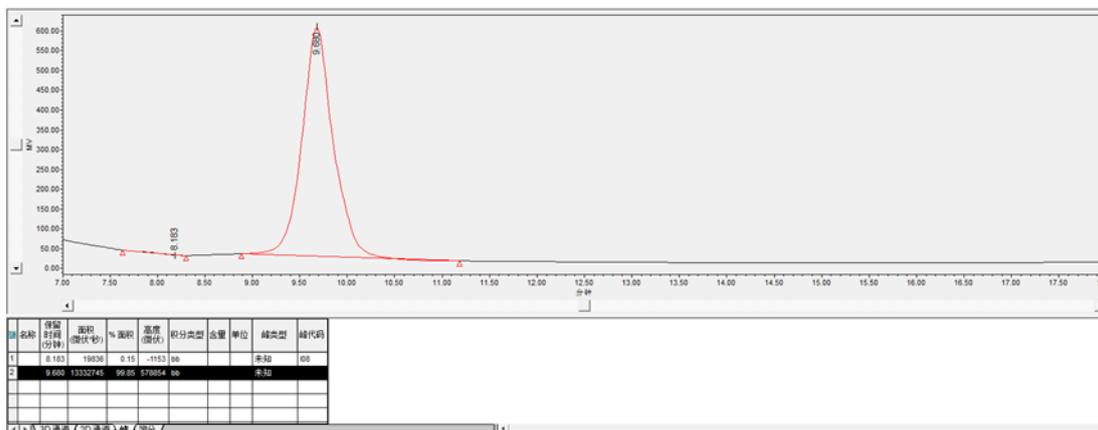


Figure S33. The purity of compound **8**.

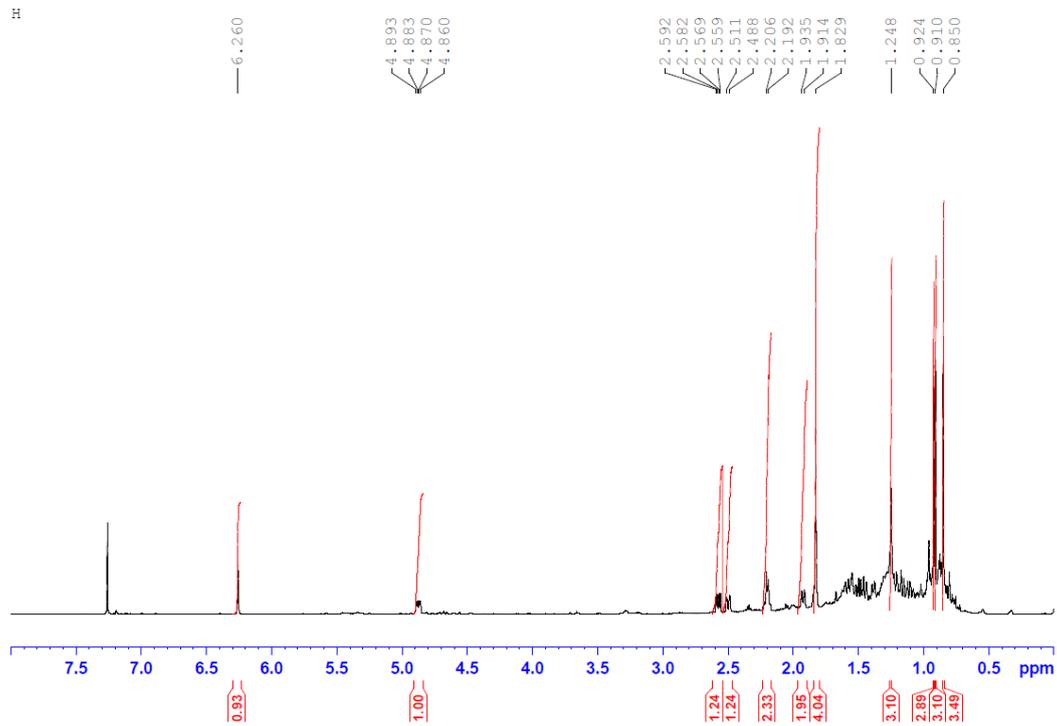


Figure S34. ^1H -NMR spectrum of compound **8**.

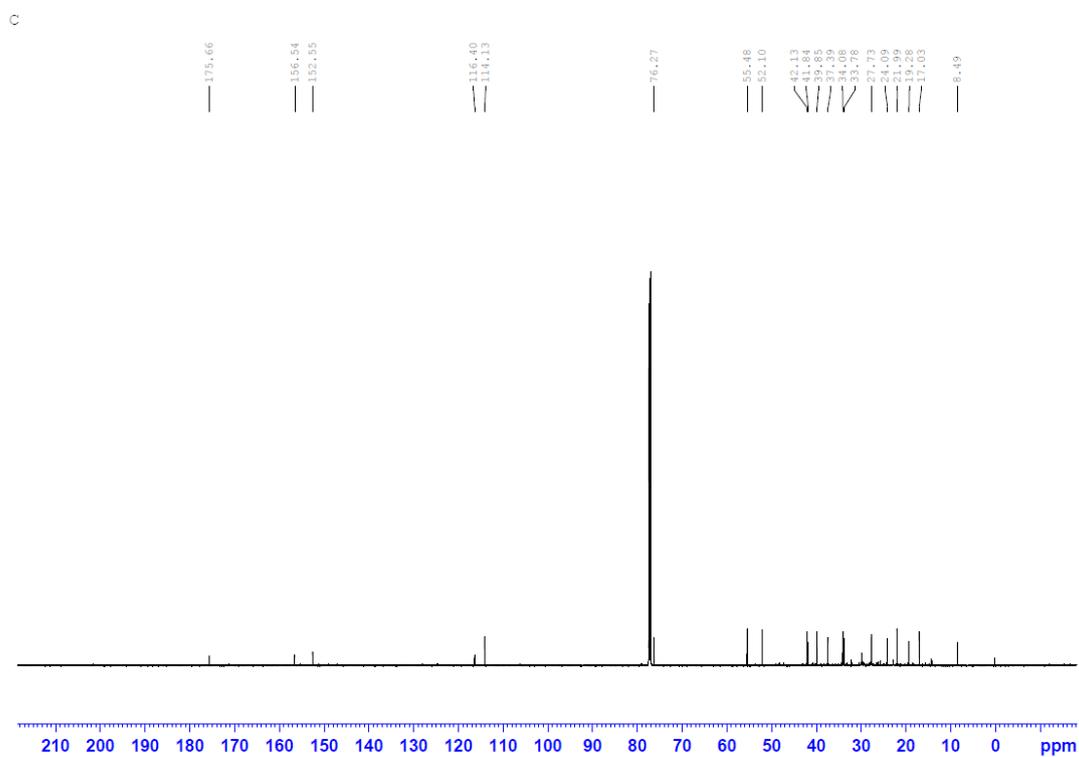


Figure S35. ^{13}C -NMR spectrum of compound **8**.

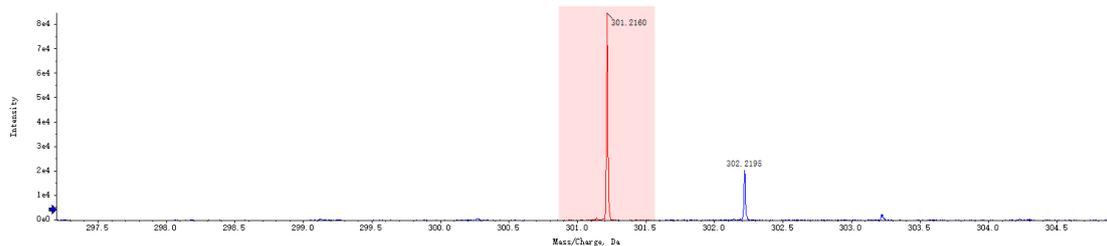


Figure S36. HRESIMS data of compound **8**.

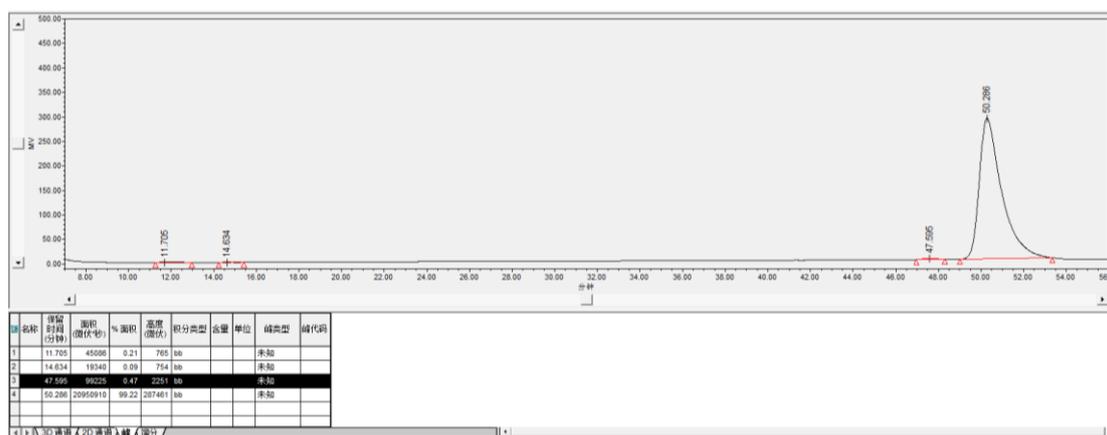


Figure S37. The purity of compound **8**.

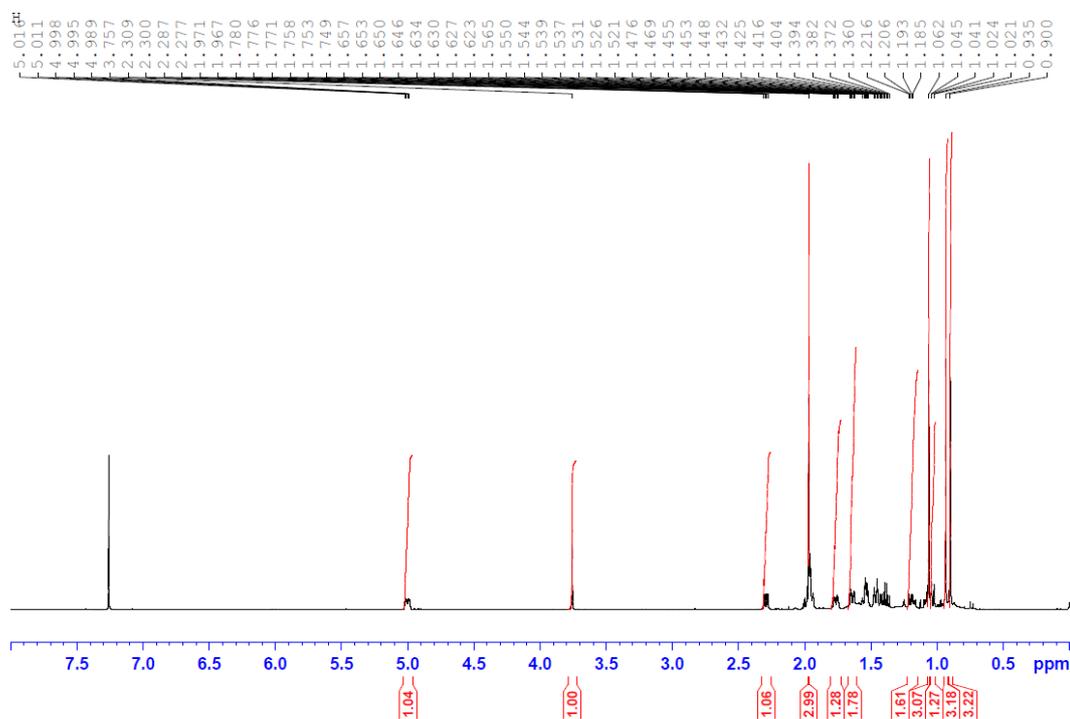


Figure S38. $^1\text{H-NMR}$ spectrum of compound **9**.

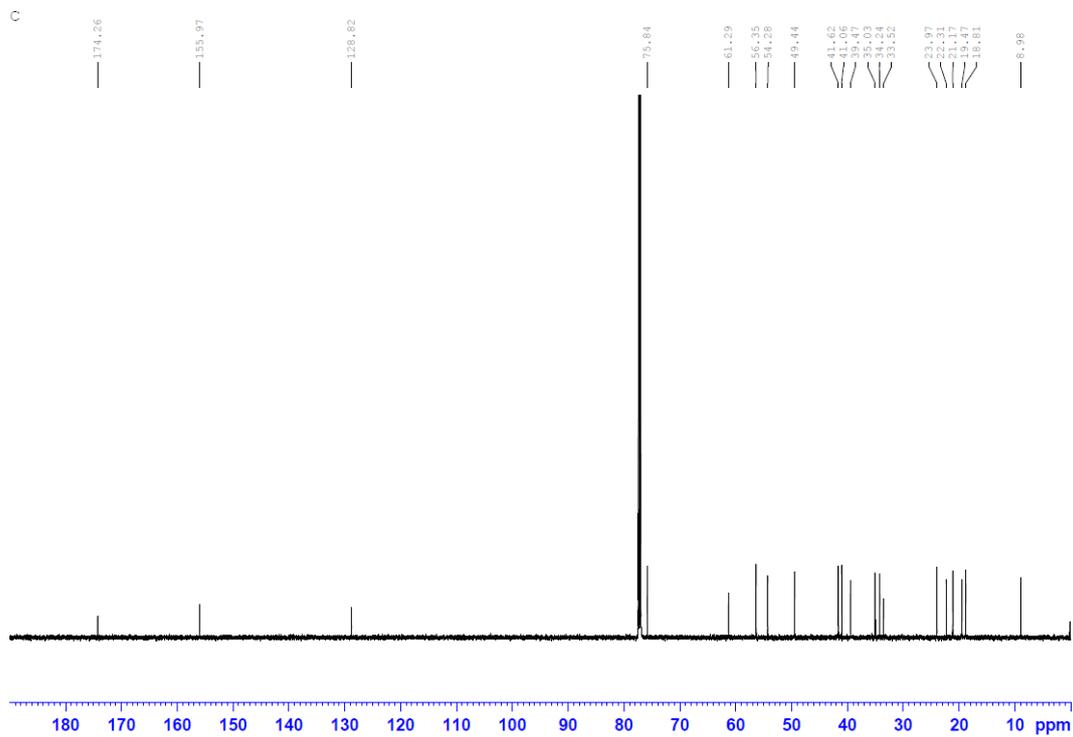


Figure S39. ^{13}C -NMR spectrum of compound **9**.

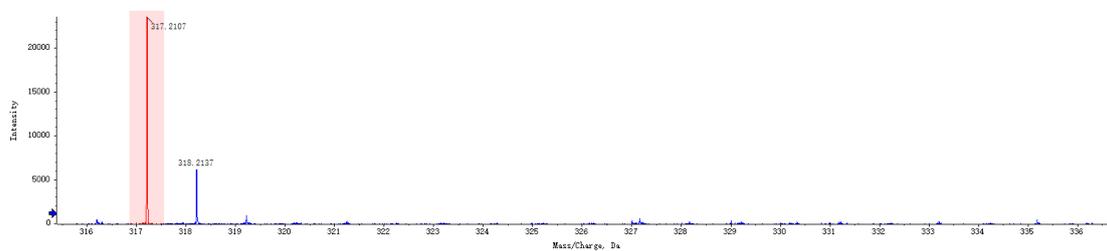


Figure S40. HRESIMS data of compound **9**.

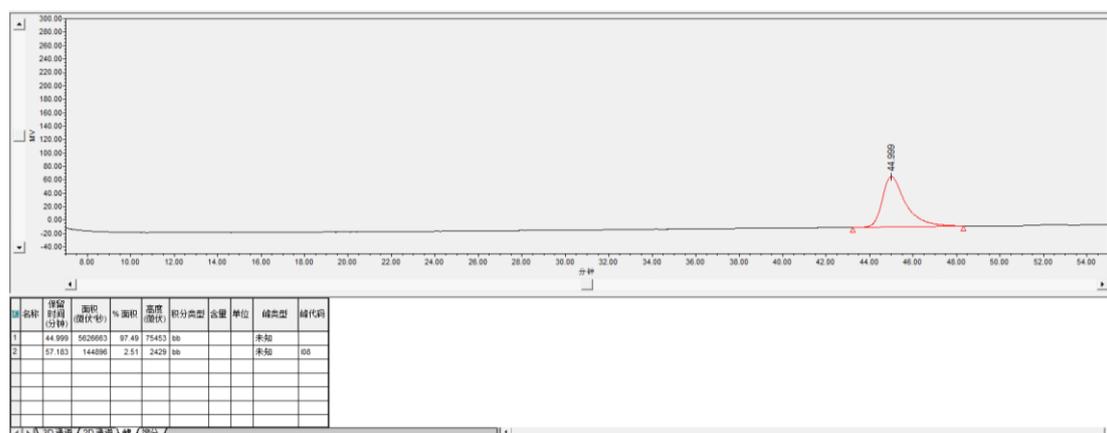


Figure S41. The purity of compound **9**.

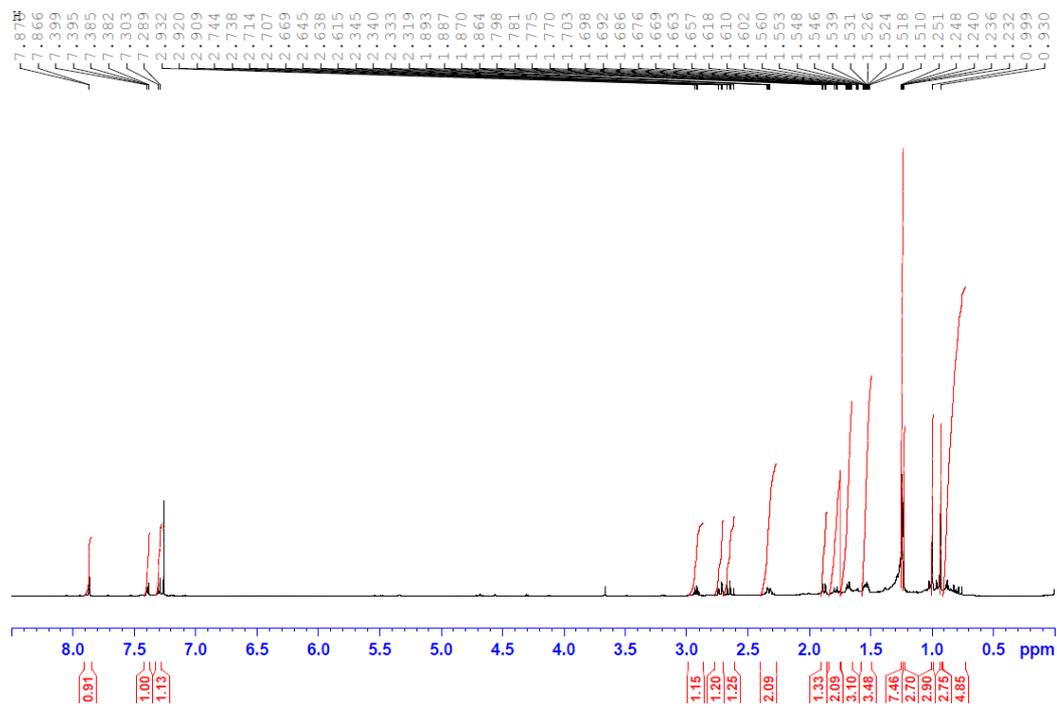


Figure S42. ^1H -NMR spectrum of compound **10**.

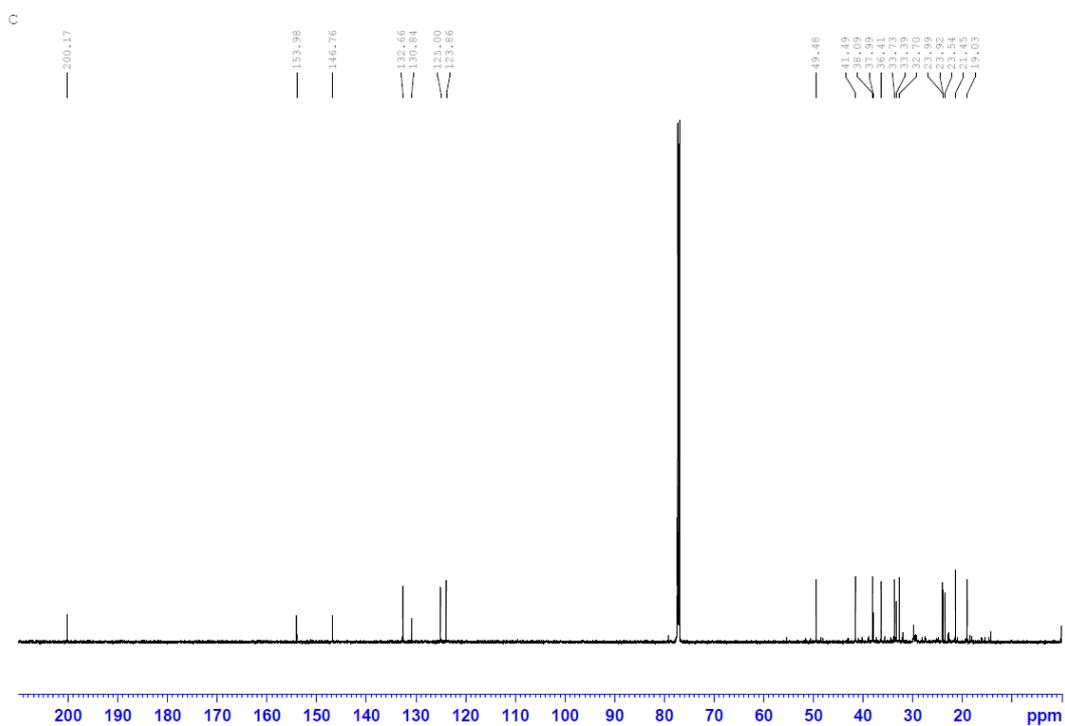


Figure S43. ^{13}C -NMR spectrum of compound **10**.

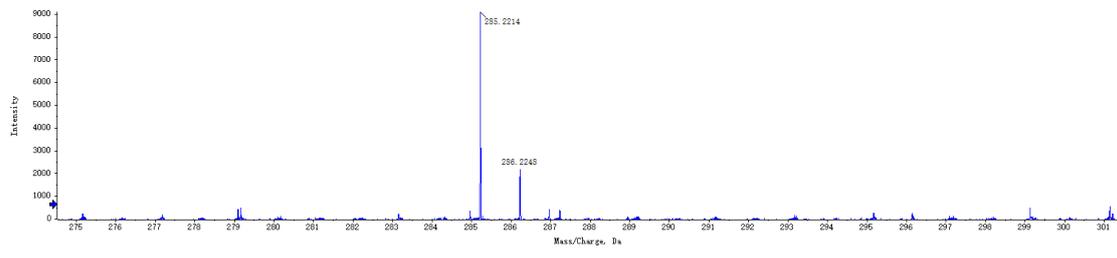


Figure S44. HRESIMS data of compound 10.

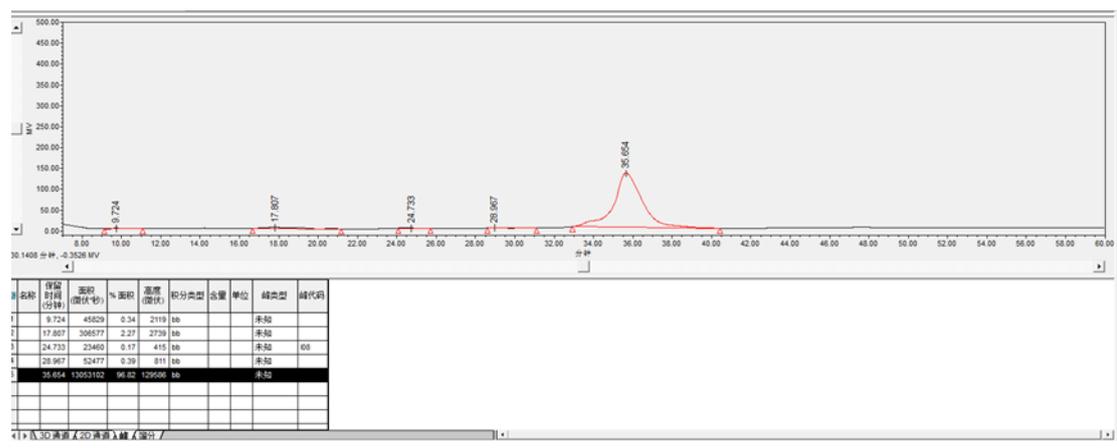


Figure S45. The purity of compound 10.

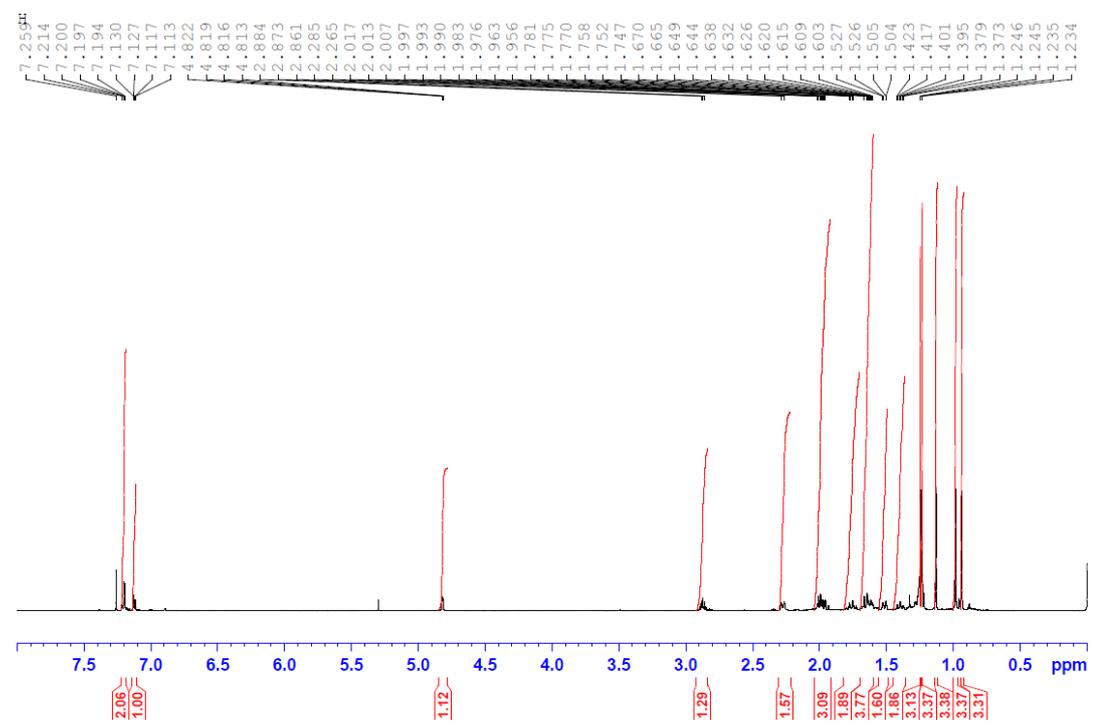


Figure S46. ¹H-NMR spectrum of compound 11.

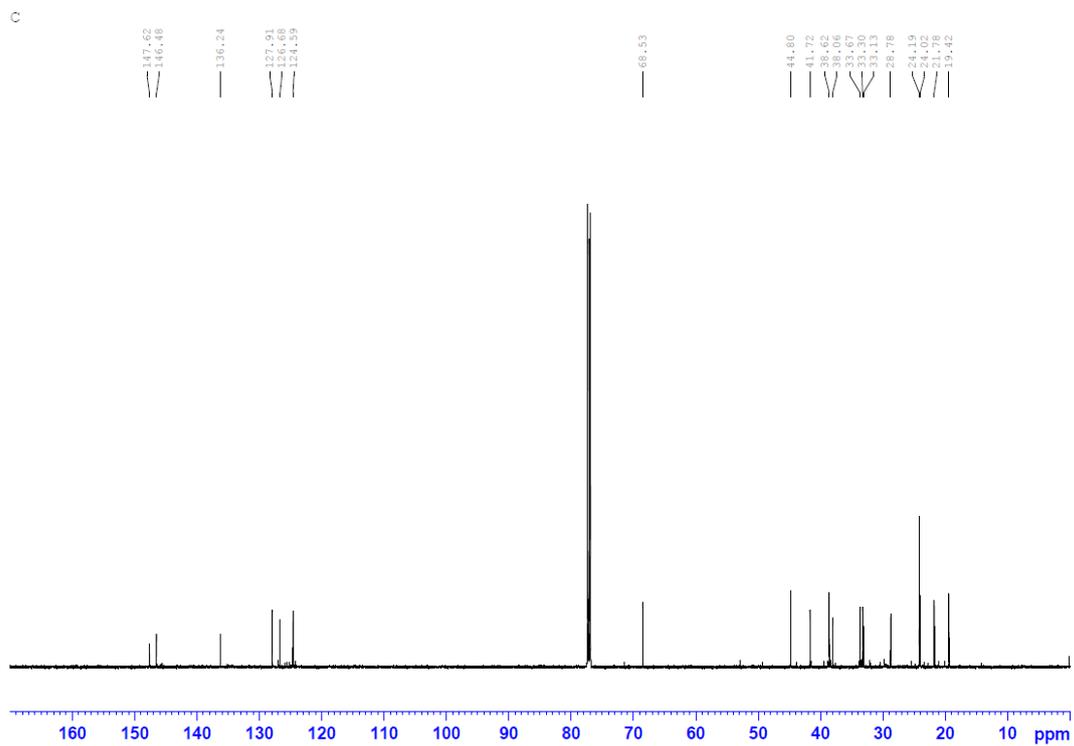


Figure S47. ^{13}C -NMR spectrum of compound **11**.

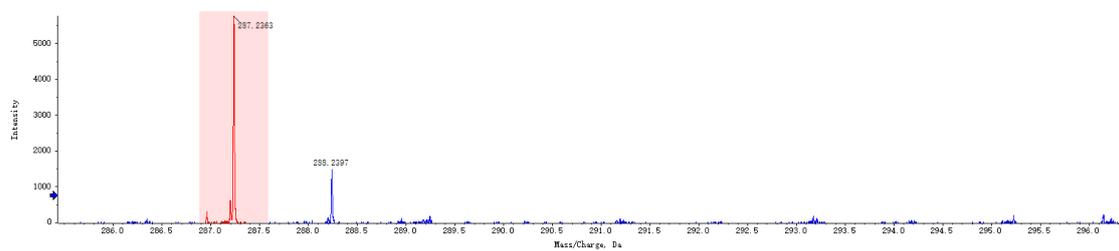


Figure S48. HRESIMS data of compound **11**.

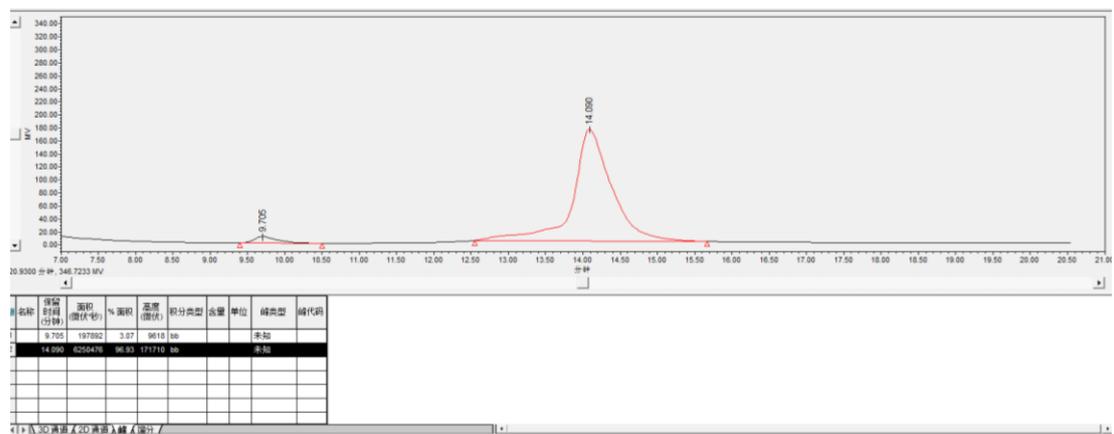


Figure S49. The purity of compound **11**.