

Supplementary Information

Secopaxilline A, an Indole-Diterpenoid Alkaloid from an Aciduric *Penicillium* fungus, its Identification and Semisynthesis

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Figure S1. ECD spectrum of secopaxilline A (**1**)

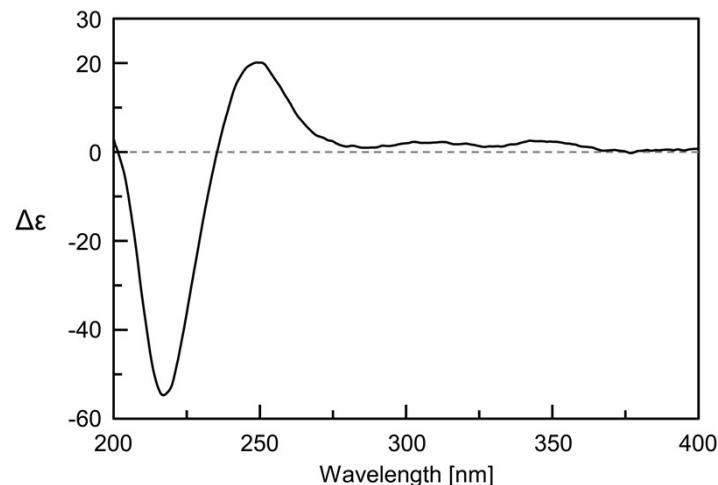


Figure S2. HPLC traces for reaction mixtures of paxilline
paxilline

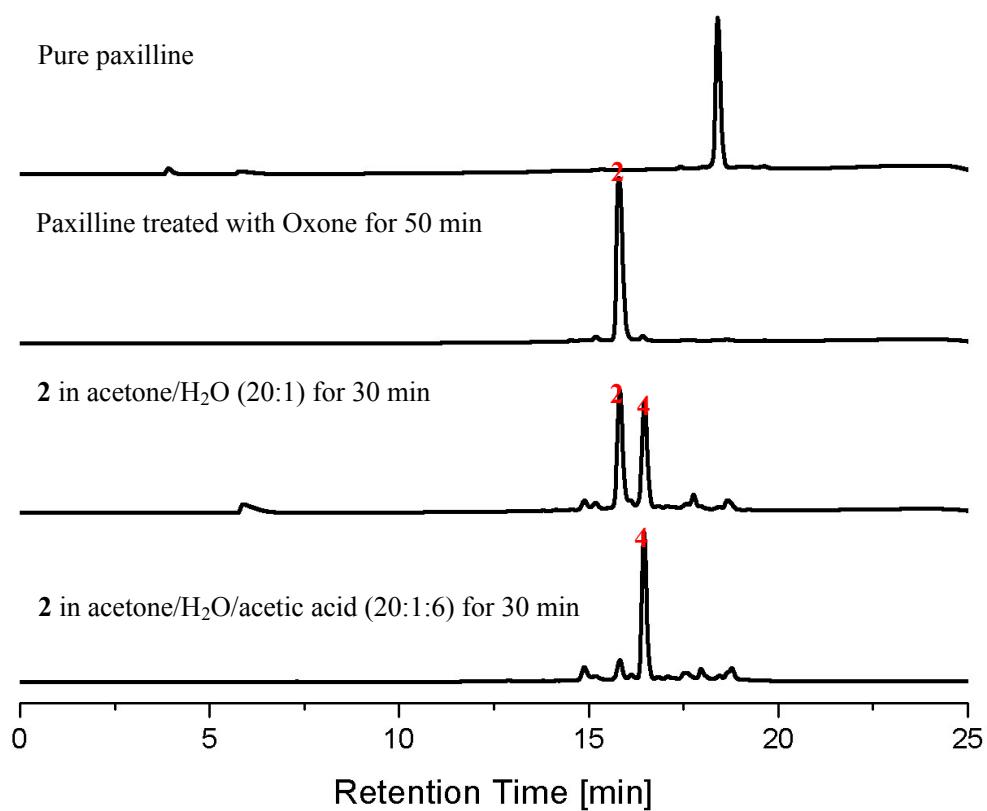


Figure S3. ESIMS spectrum of compound **2**

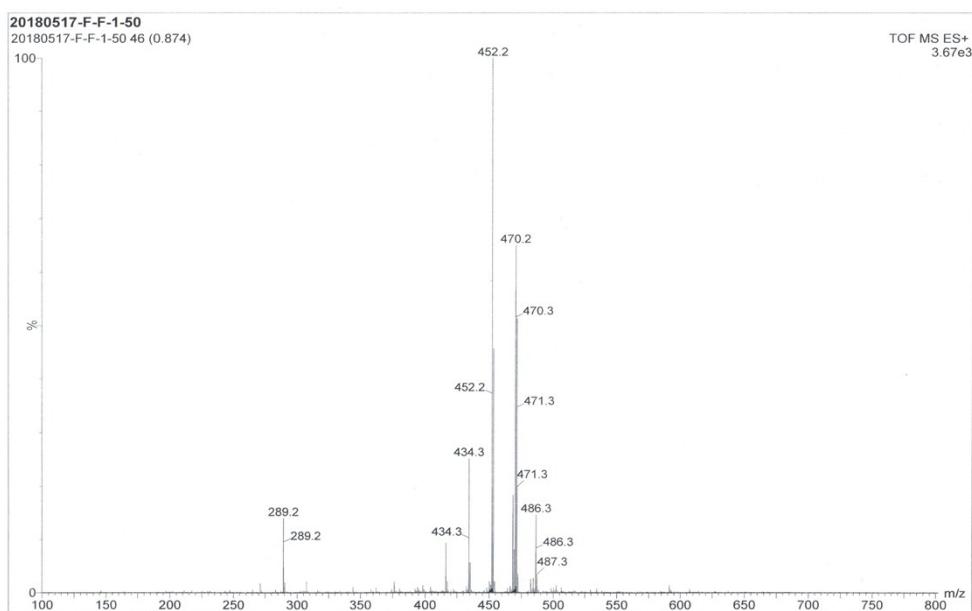


Figure S4. HPLC traces for one-pot synthesis of deacetylsecopaxilline A (**4**) from paxilline

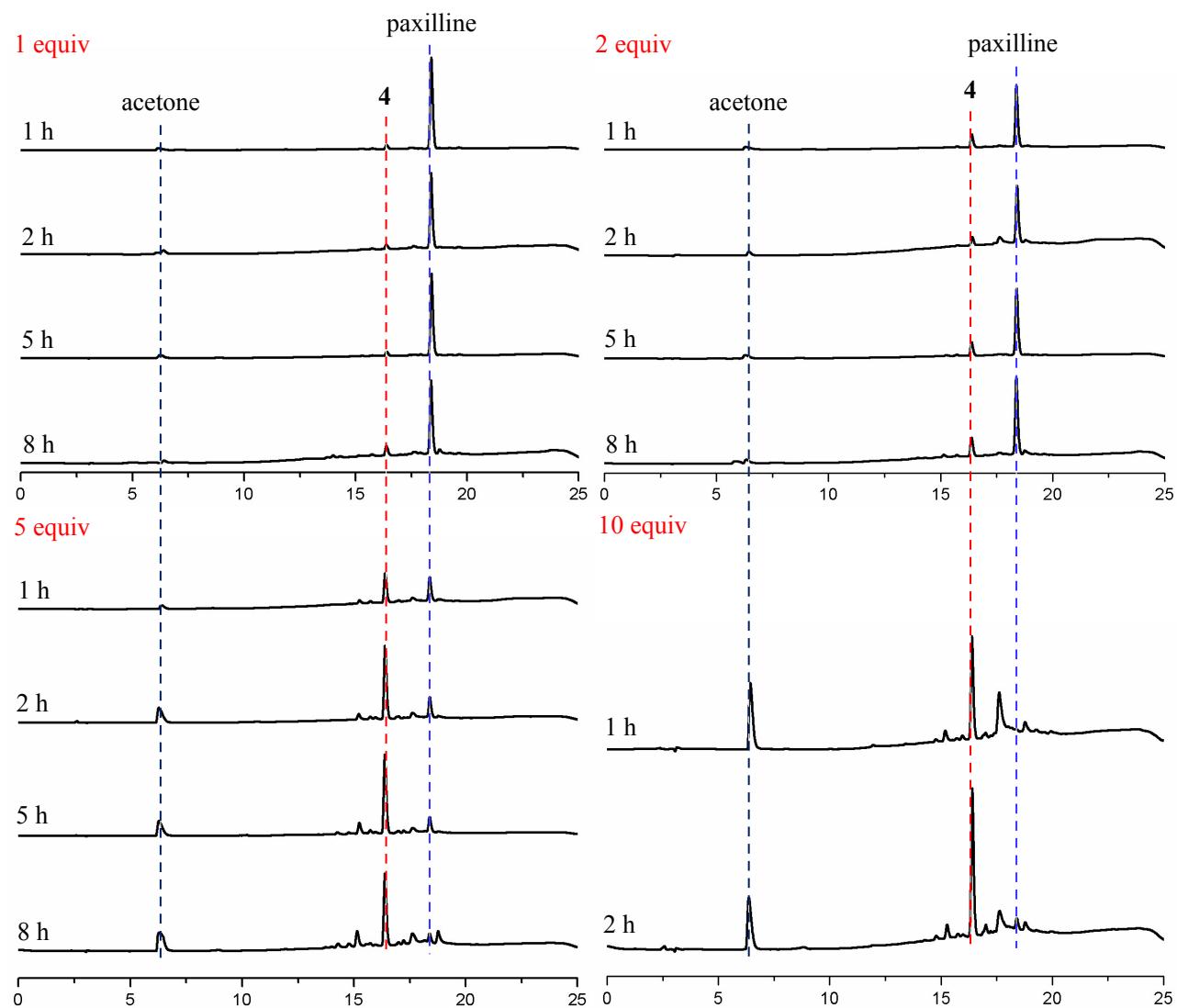


Figure S5. HRESIMS spectrum of secopaxilline A (**1**)

20180326-fyq-7-115_180326152834

3/26/2018 4:26:32 PM

fyq-7-115

20180326-fyq-7-115_180326152834 #55-56 RT: 0.44-0.44 AV: 2 NL: 7.38E7
T: FTMS + p ESI Full ms [100.00-2000.00]

512.2633
 $C_{29} H_{38} O_7 N = 512.2643$
-1.9978 ppm

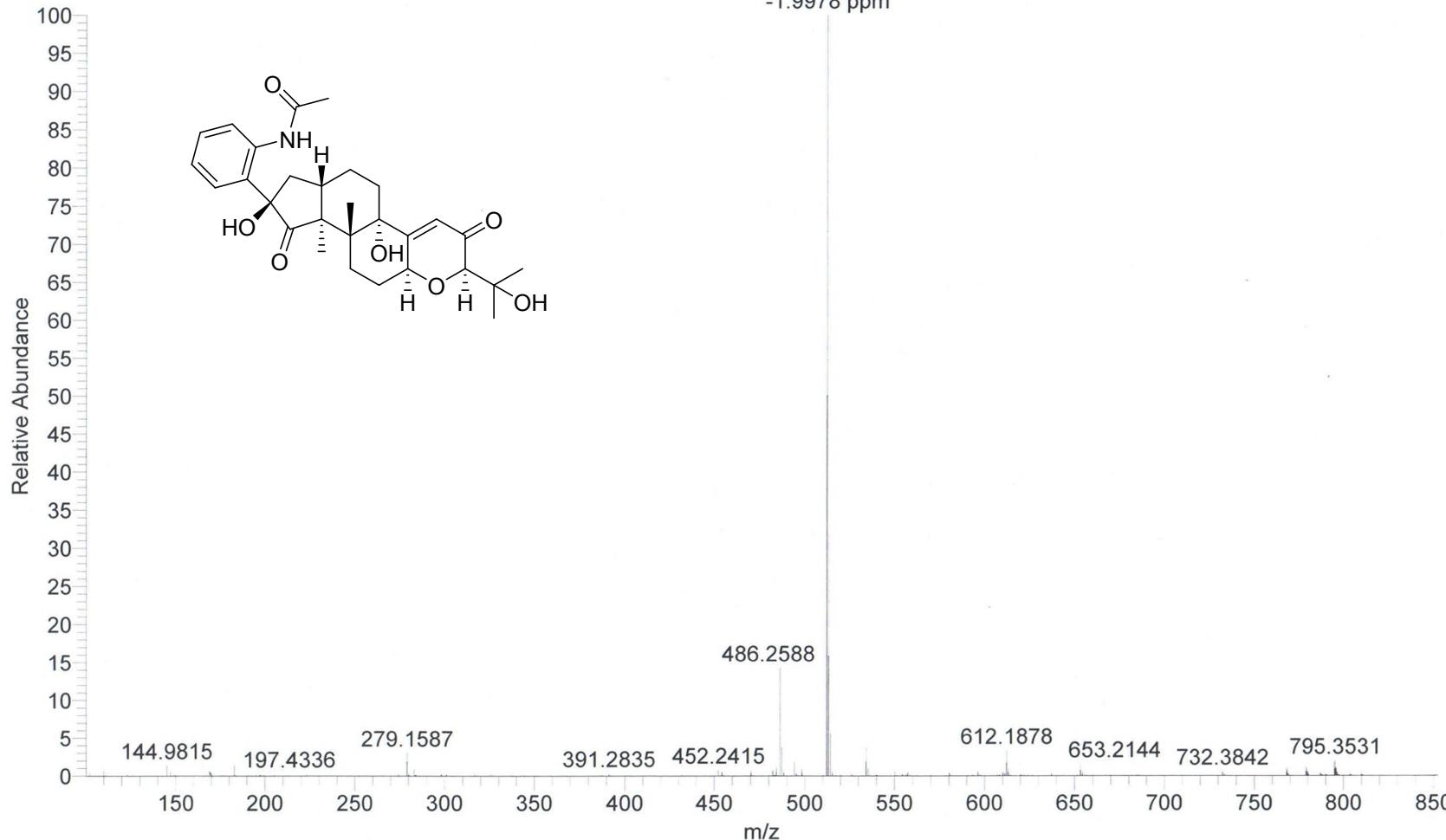


Figure S6. ^1H -NMR spectrum of secopaxilline A (**1**) in $\text{DMSO}-d_6$

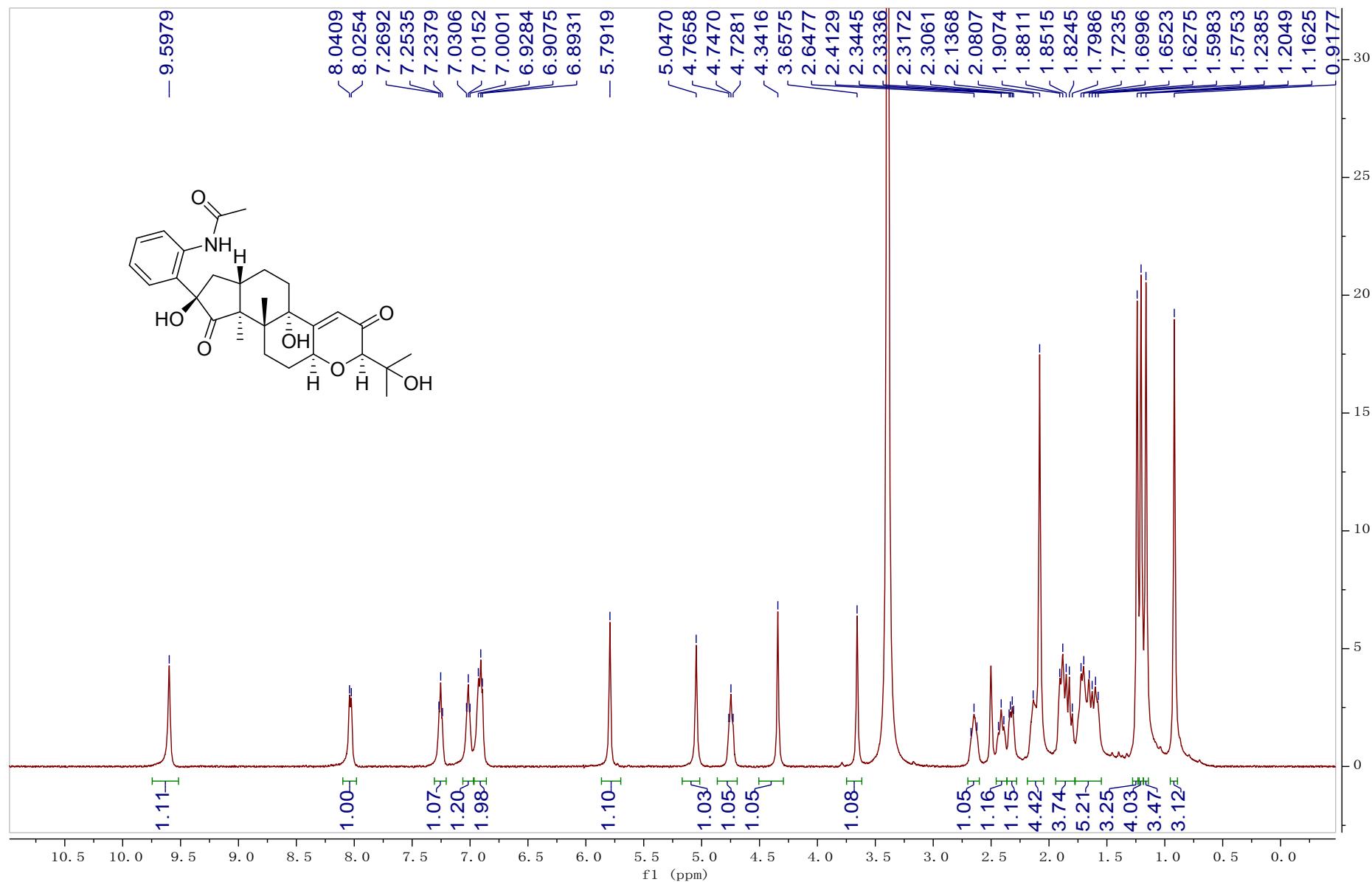


Figure S7. ^{13}C -NMR spectrum of secopaxilline A (**1**) in $\text{DMSO}-d_6$

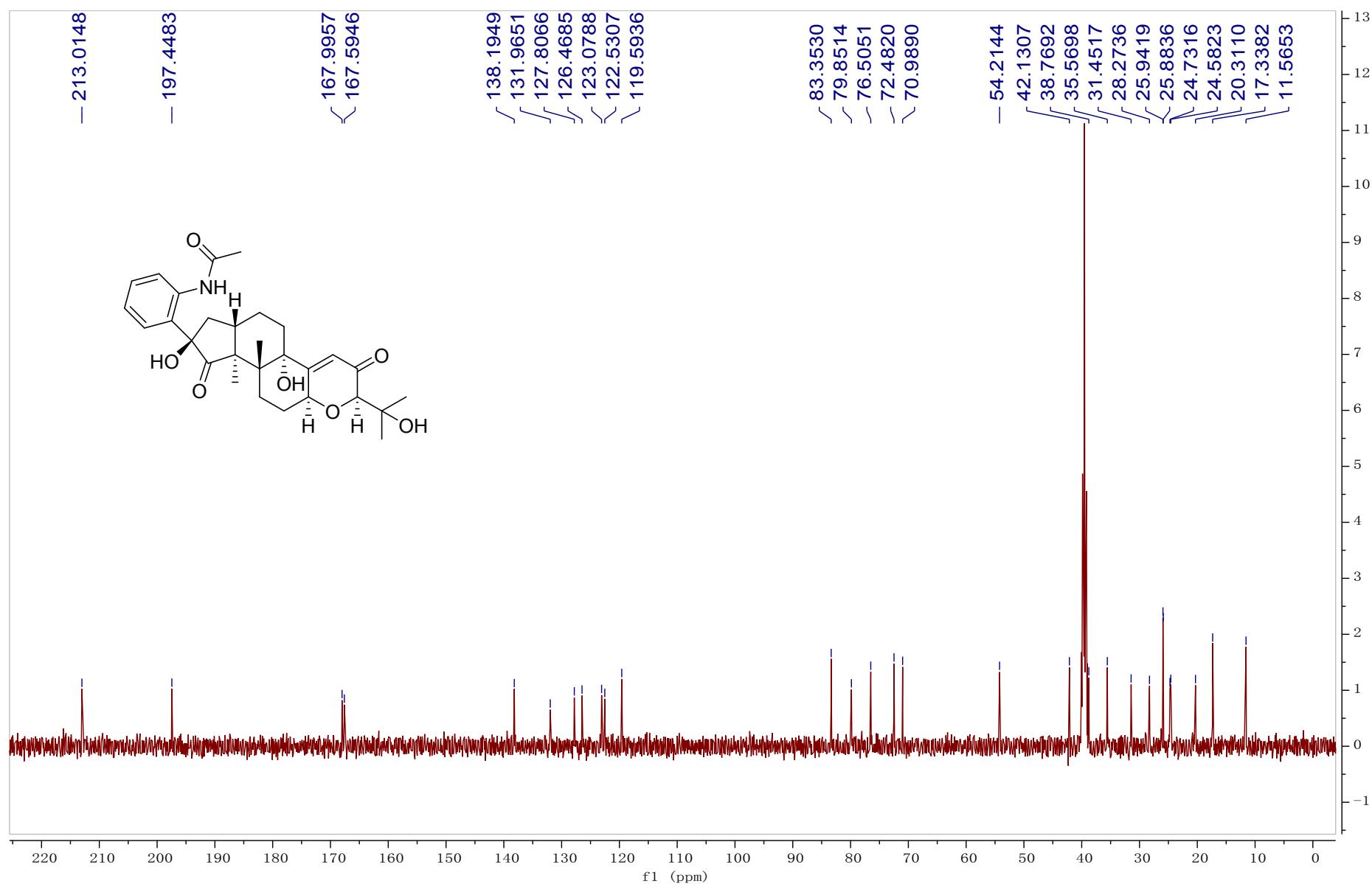


Figure S8. DEPT spectrum of secopaxilline A (**1**) in $\text{DMSO}-d_6$

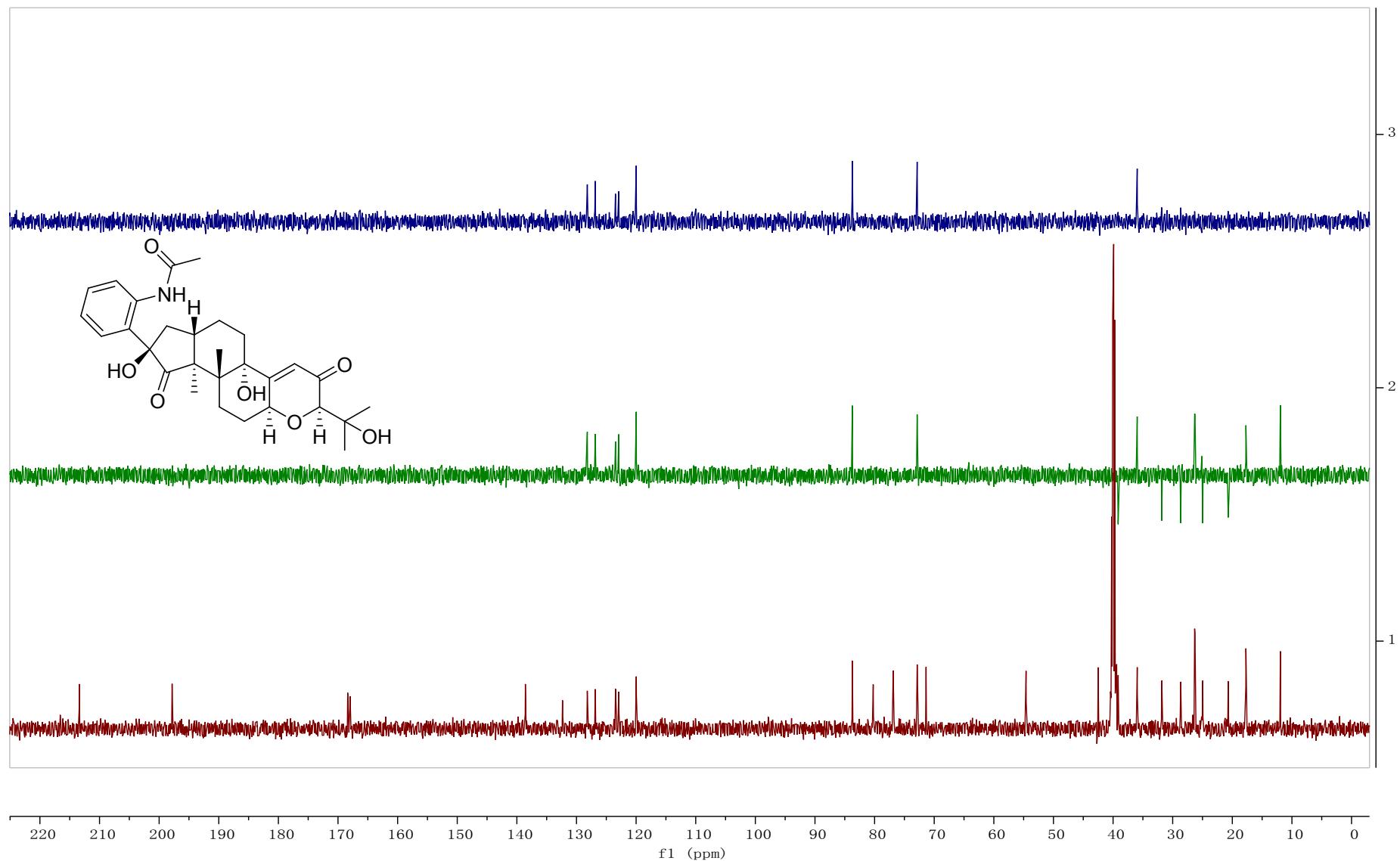


Figure S9. HSQC spectrum of secopaxilline A (**1**) in $\text{DMSO}-d_6$

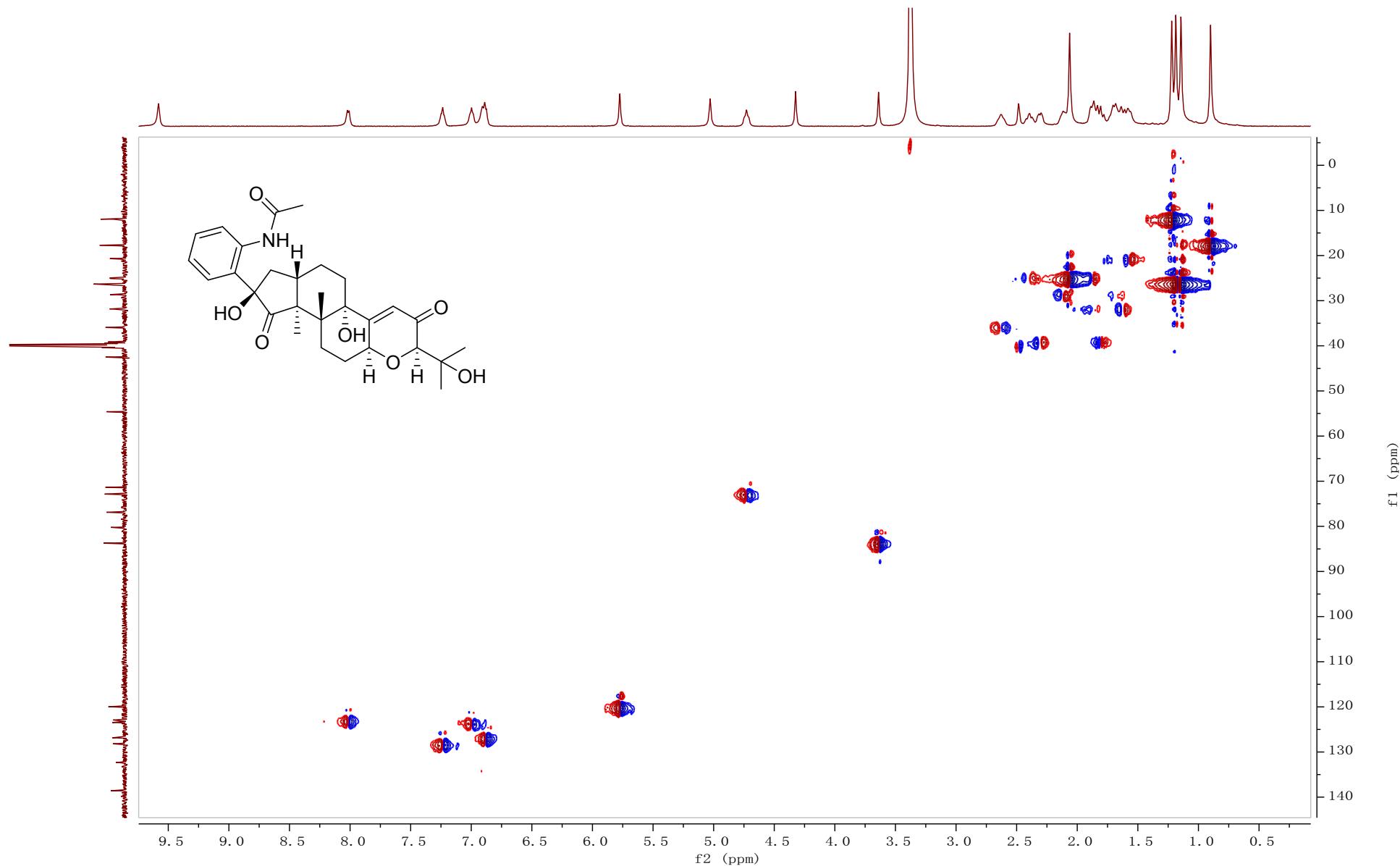


Figure S10. ^1H - ^1H COSY spectrum of secopaxilline A (**1**) in $\text{DMSO}-d_6$

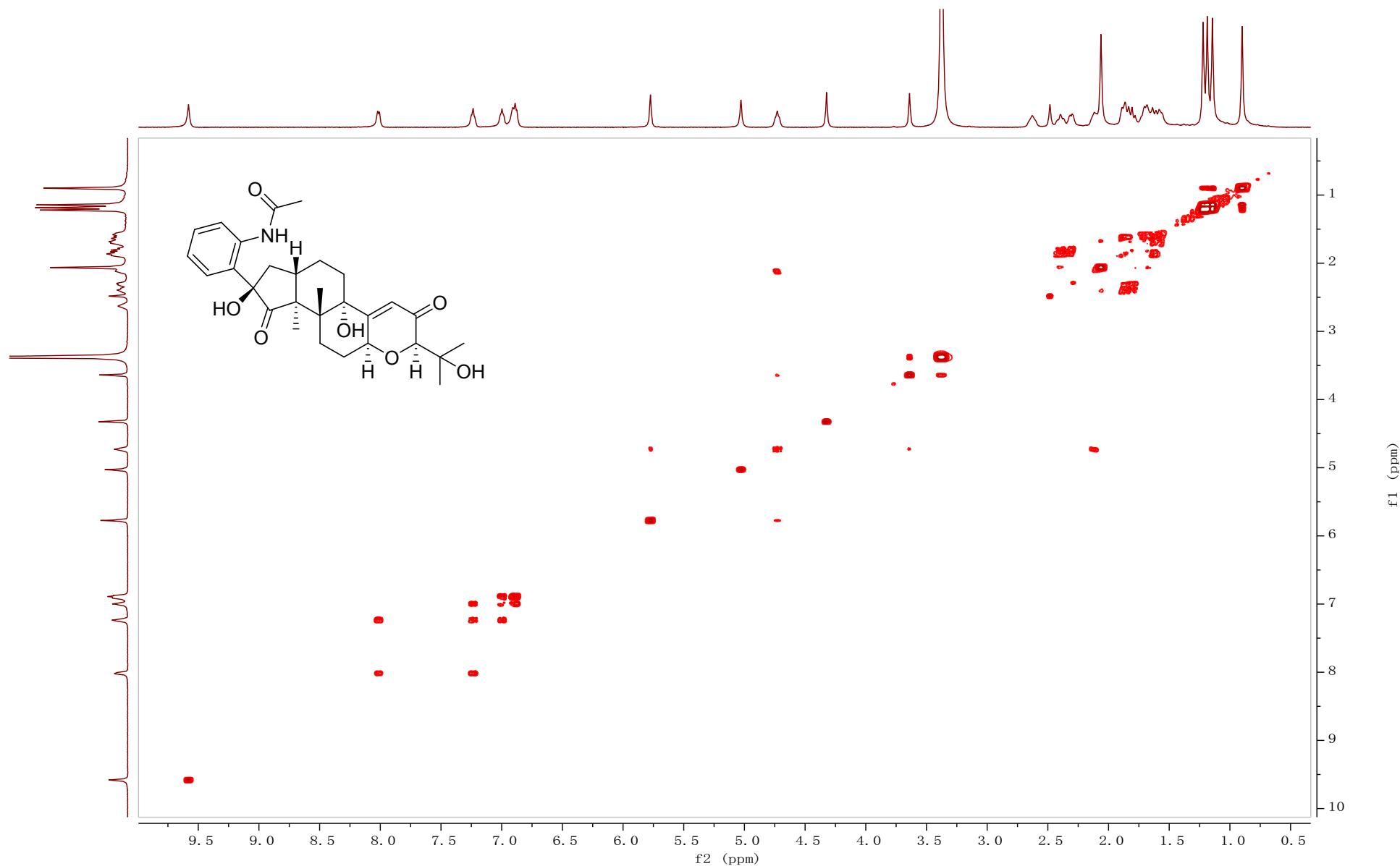


Figure S11. HMBC spectrum of secopaxilline A (**1**) in $\text{DMSO}-d_6$

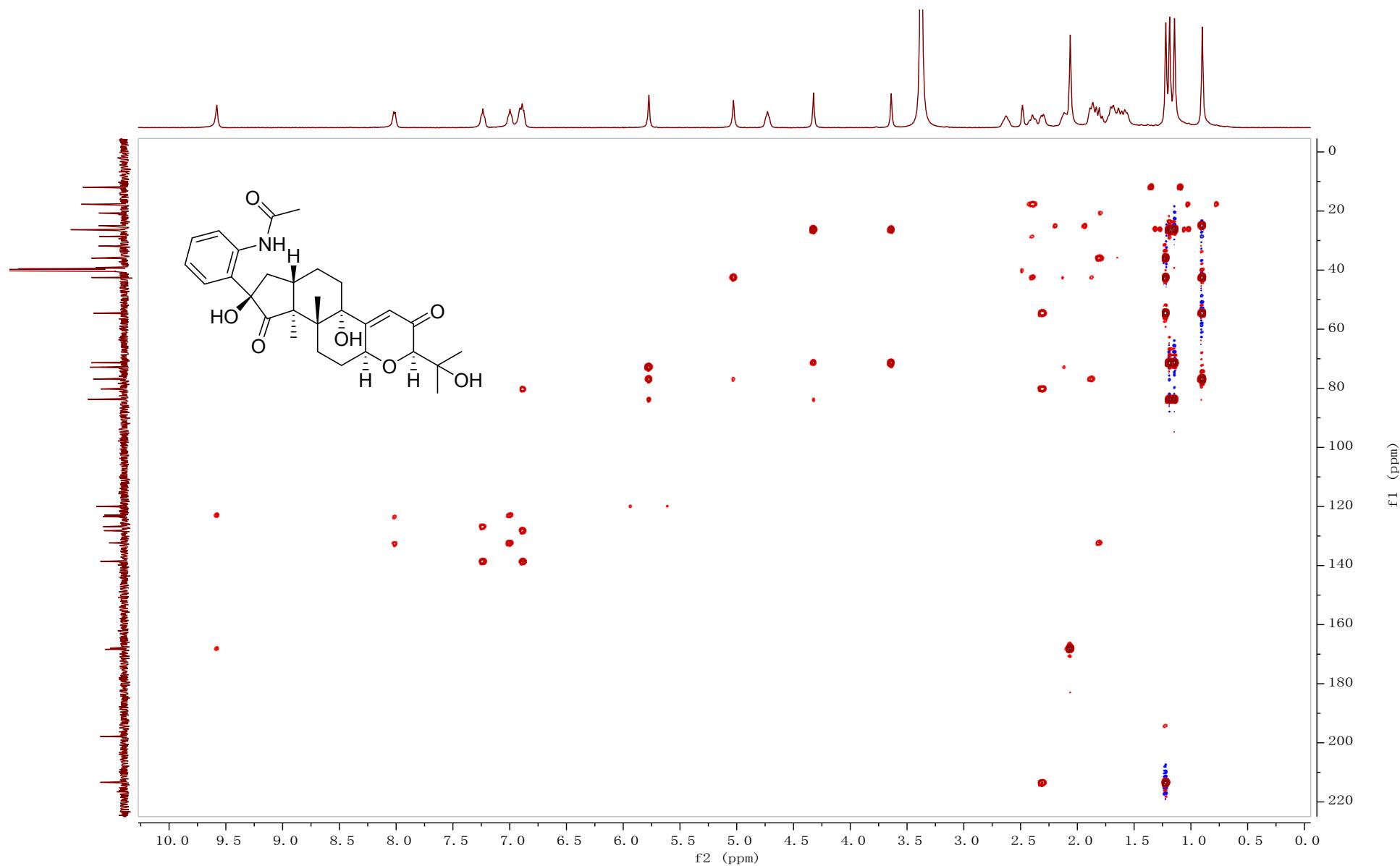


Figure S12. NOESY spectrum of secopaxilline A (**1**) in $\text{DMSO}-d_6$

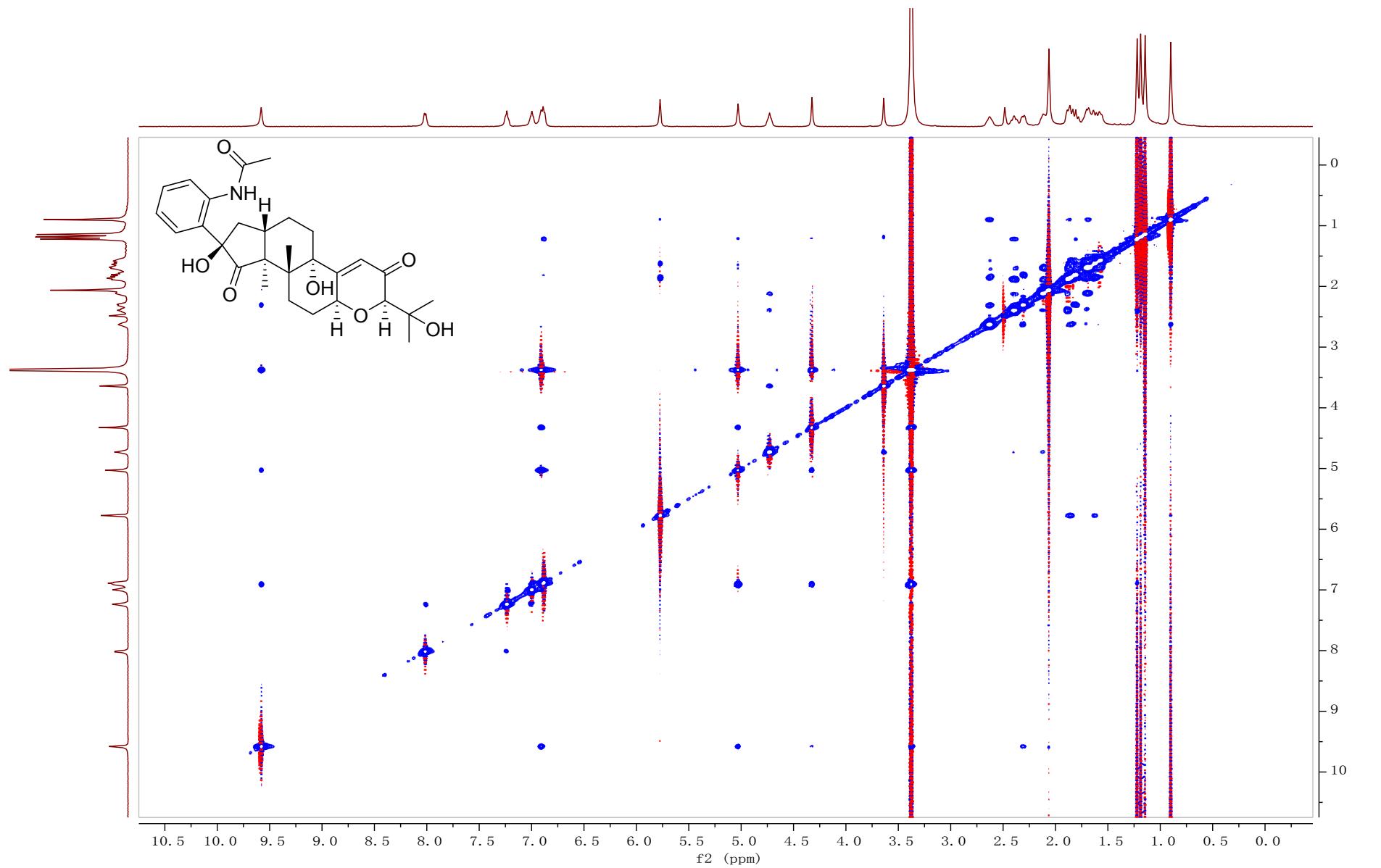


Figure S13. HRESIMS spectrum of deacetylsecopaxilline A (**4**)

20180521-FYQ-10-2_180521110353 #10 RT: 0.08 AV: 1 NL: 4.29E8
T: FTMS + p ESI Full ms [170.00-2000.00]

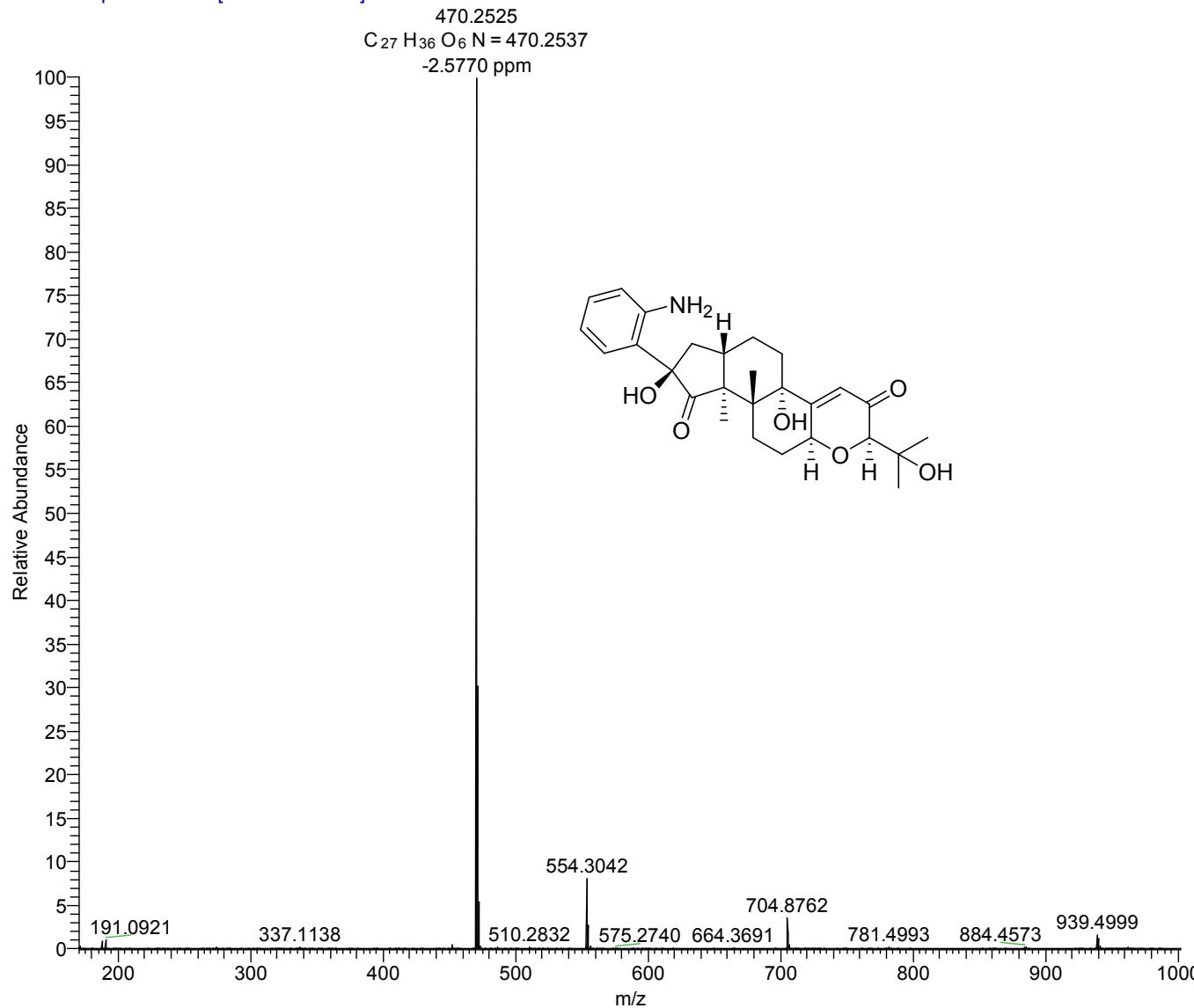


Figure S14. ^1H -NMR spectrum of deacetylsecopaxilline A (**4**) in $\text{DMSO}-d_6$

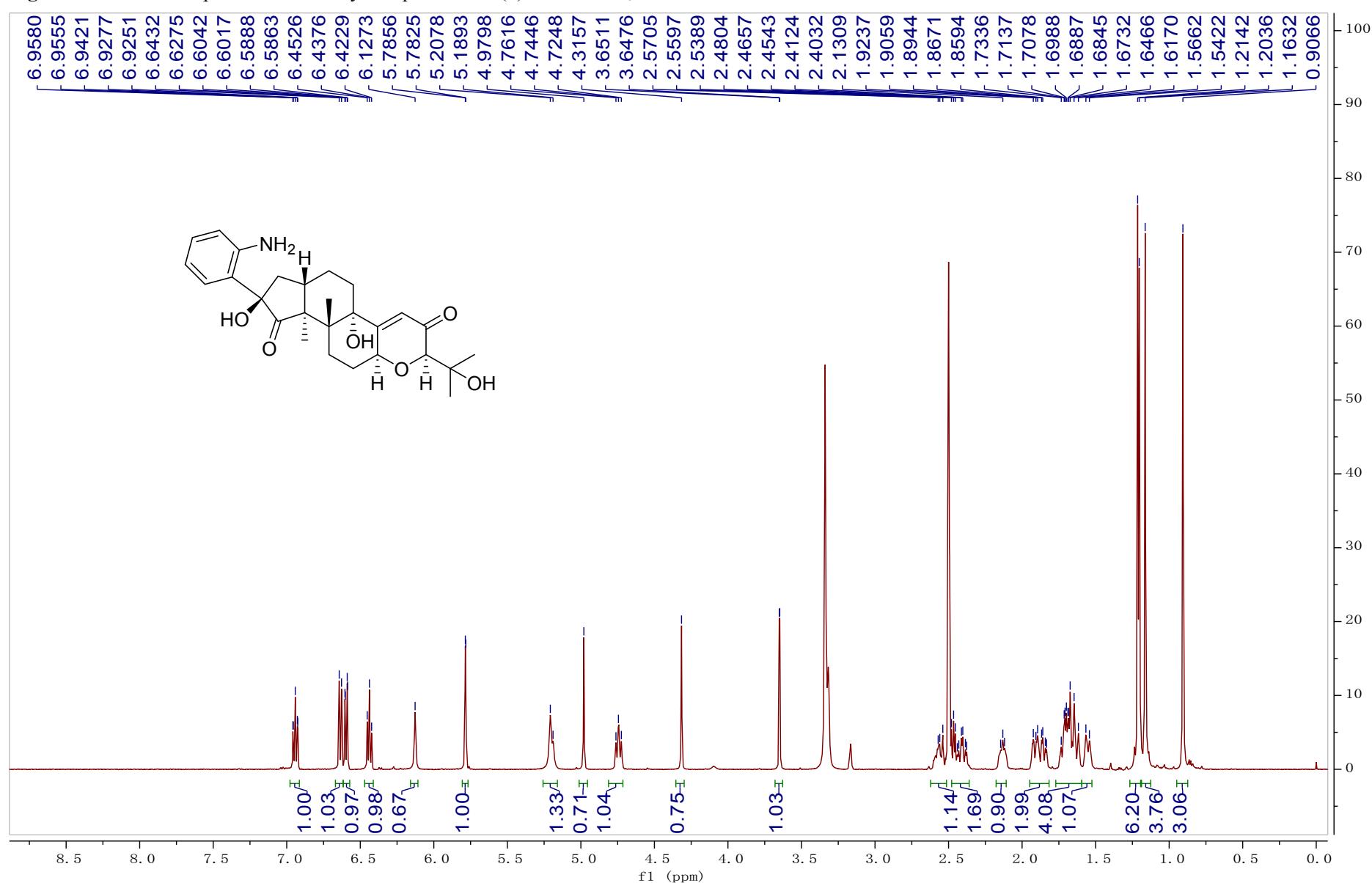


Figure S15. ^{13}C -NMR spectrum of deacetylsecopaxilline A (**4**) in $\text{DMSO}-d_6$

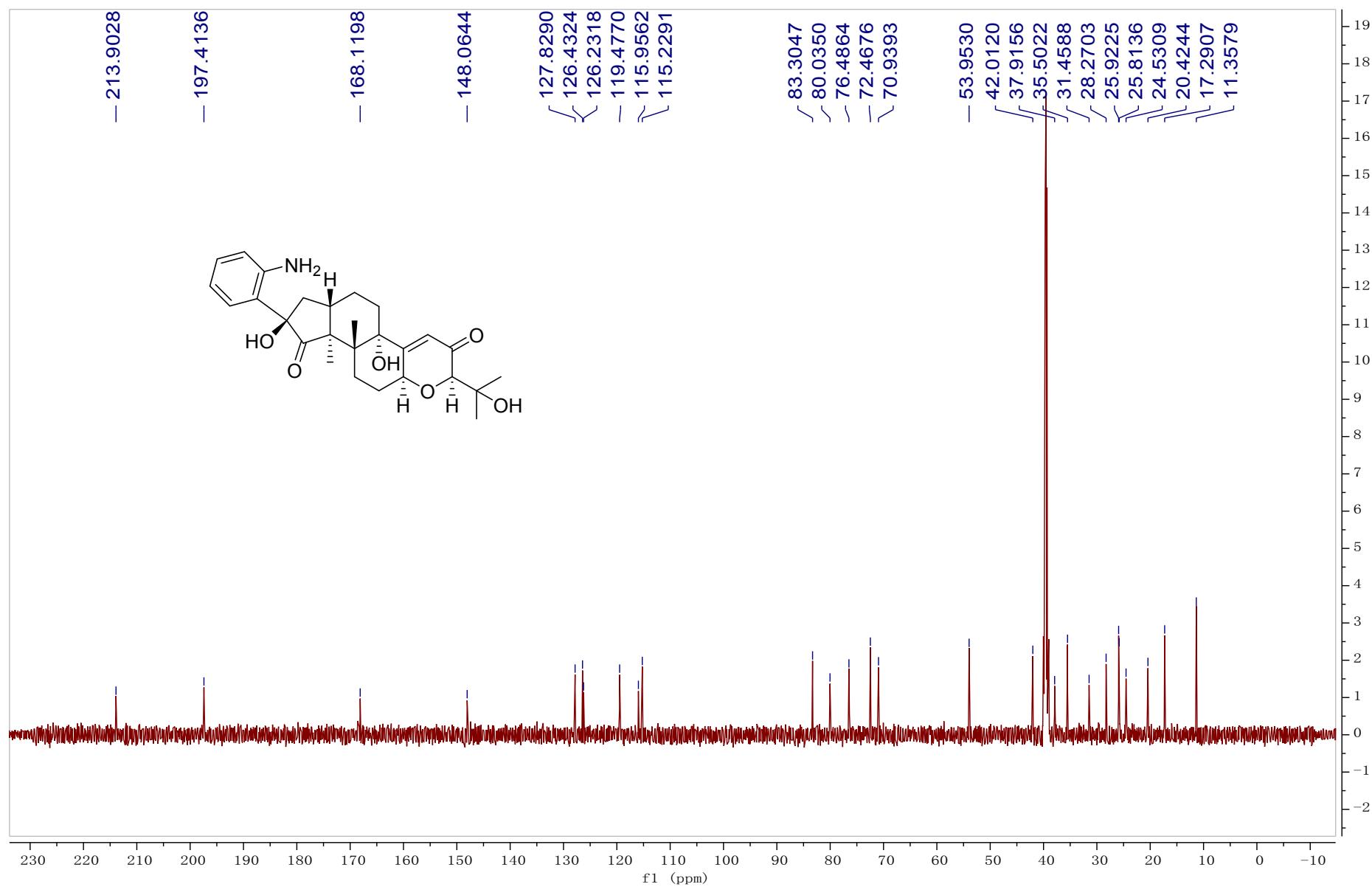


Figure S16. HSQC spectrum of deacetylsecopaxilline A (**4**) in $\text{DMSO}-d_6$

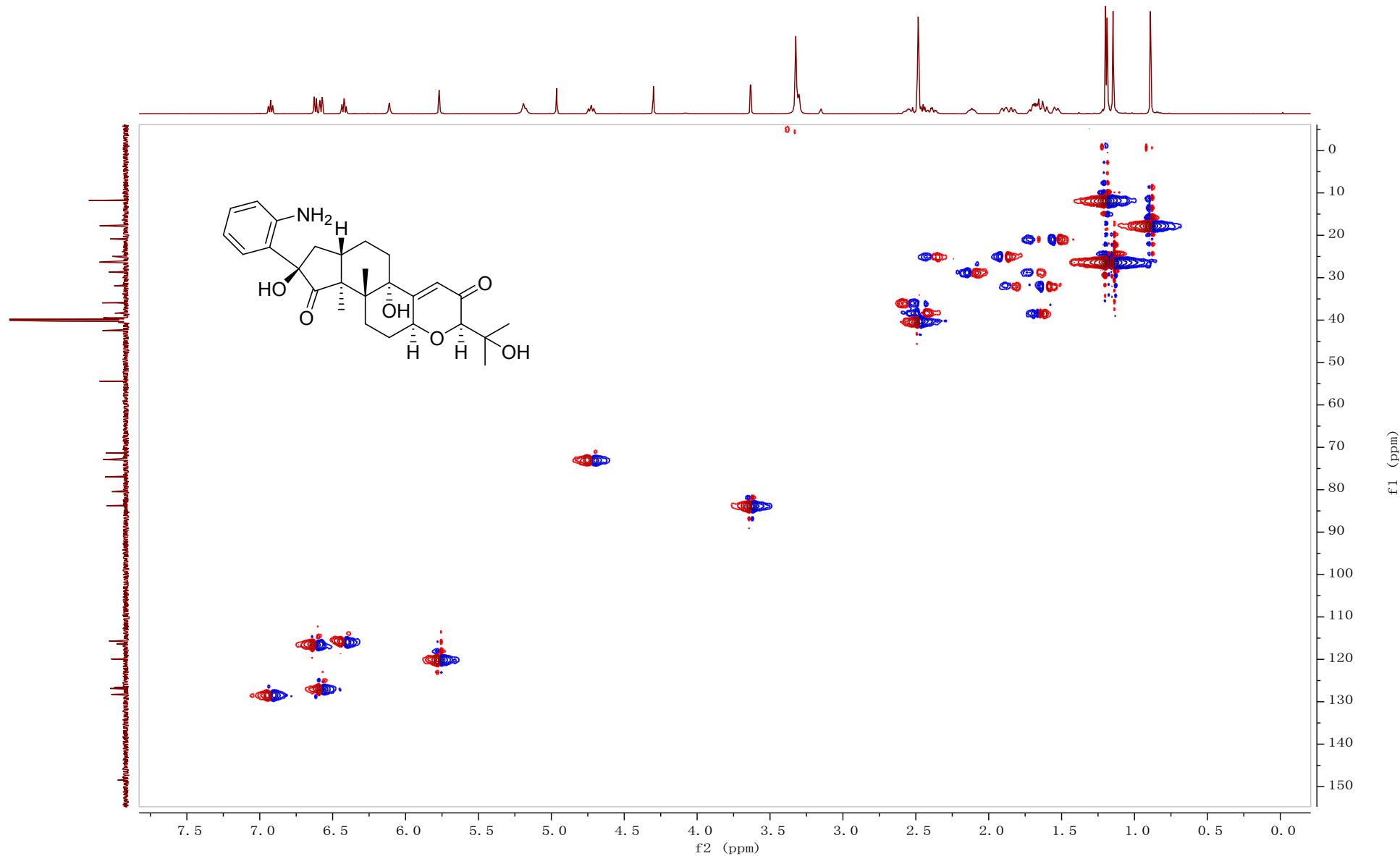


Figure S17. ^1H - ^1H COSY spectrum of deacetylsecopaxilline A (**4**) in $\text{DMSO}-d_6$

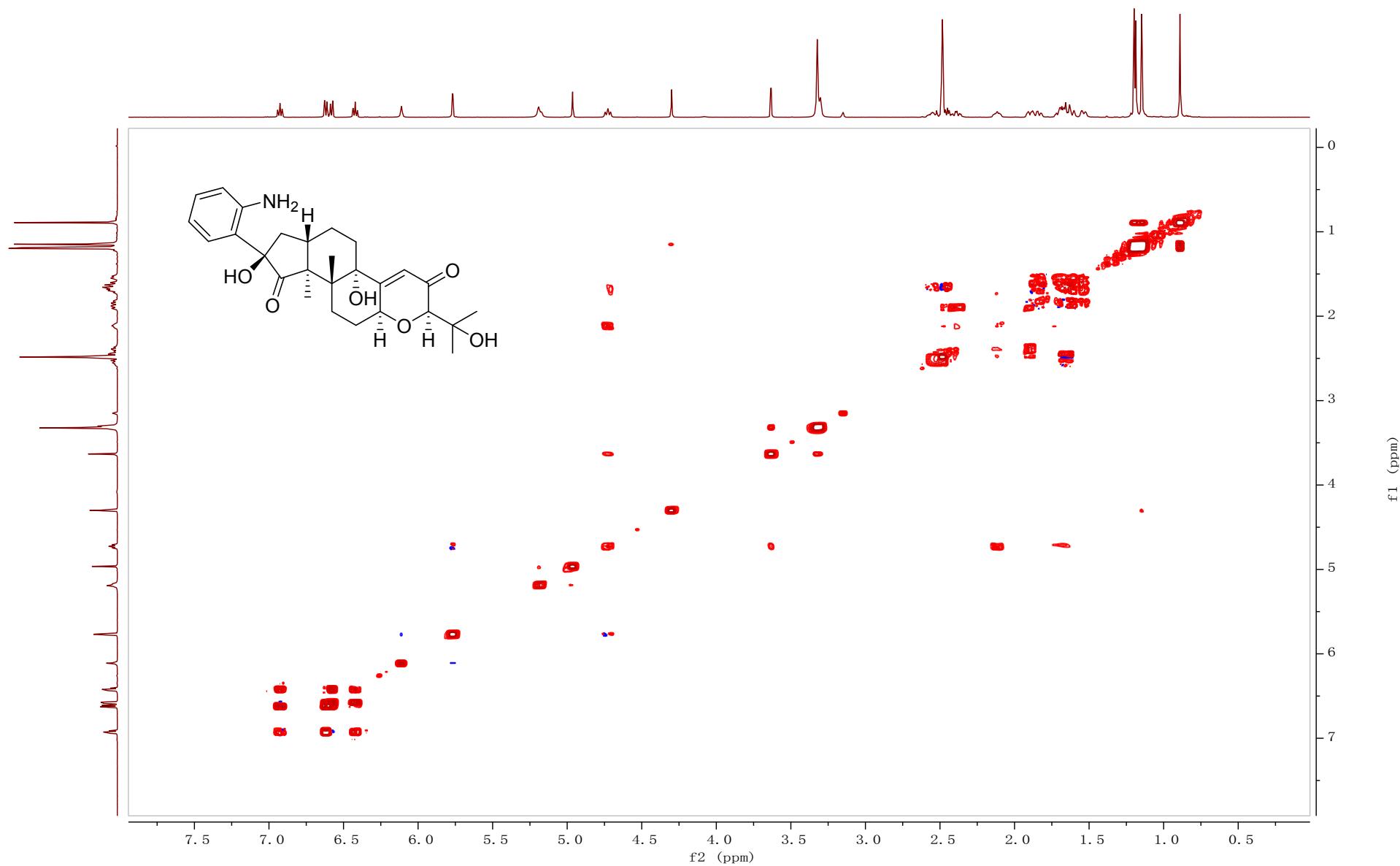


Figure S18. HMBC spectrum of deacetylsecopaxilline A (**4**) in $\text{DMSO}-d_6$

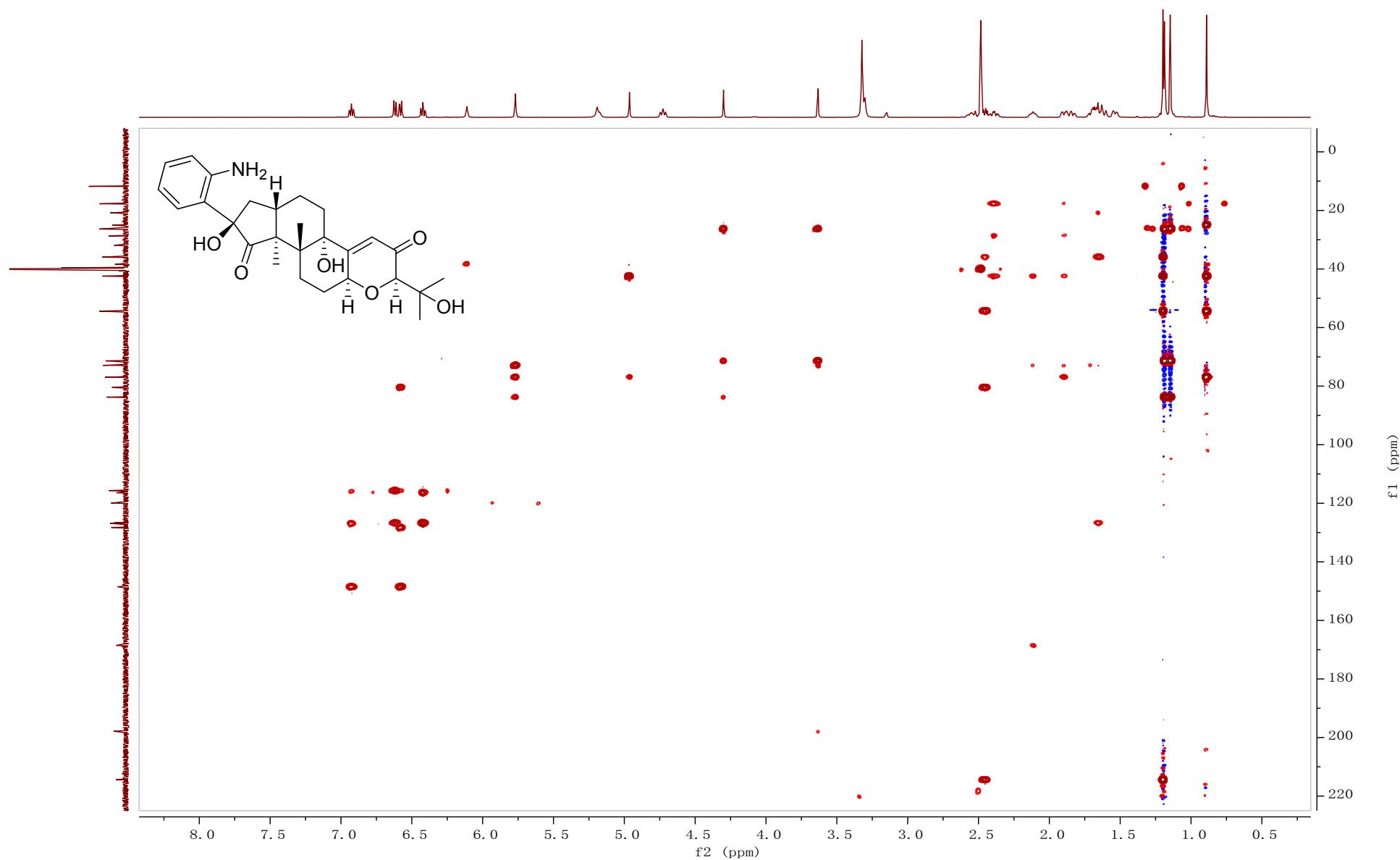


Figure S19. NOESY spectrum of deacetylsecopaxilline A (**4**) in $\text{DMSO}-d_6$

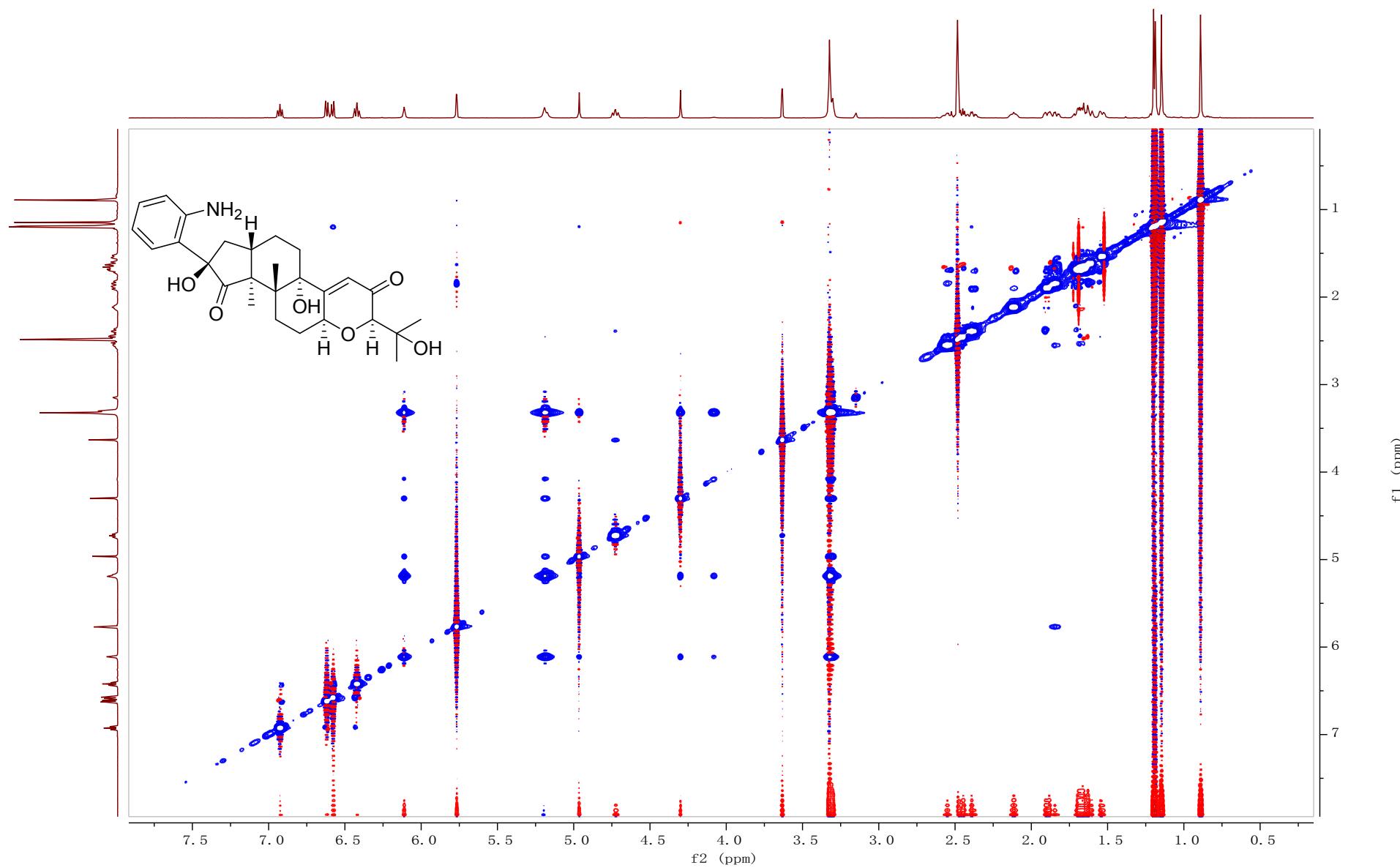


Figure S20. Comparison of the ^1H -NMR of the isolated and synthetic secopaxilline A (**1**)

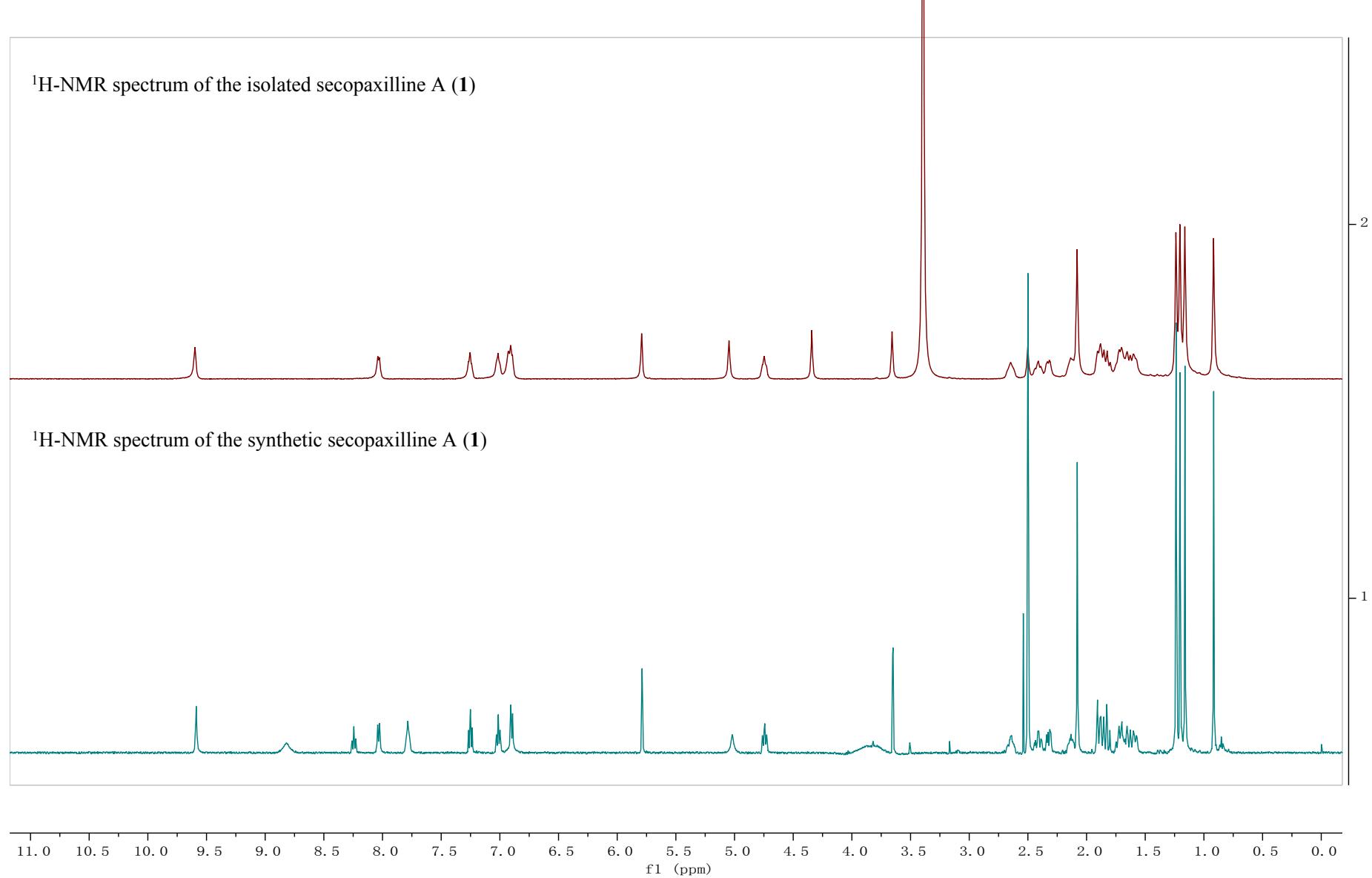


Figure S21. UV spectrum of secopaxilline A (**1**) and deacetylsecopaxilline A (**4**)

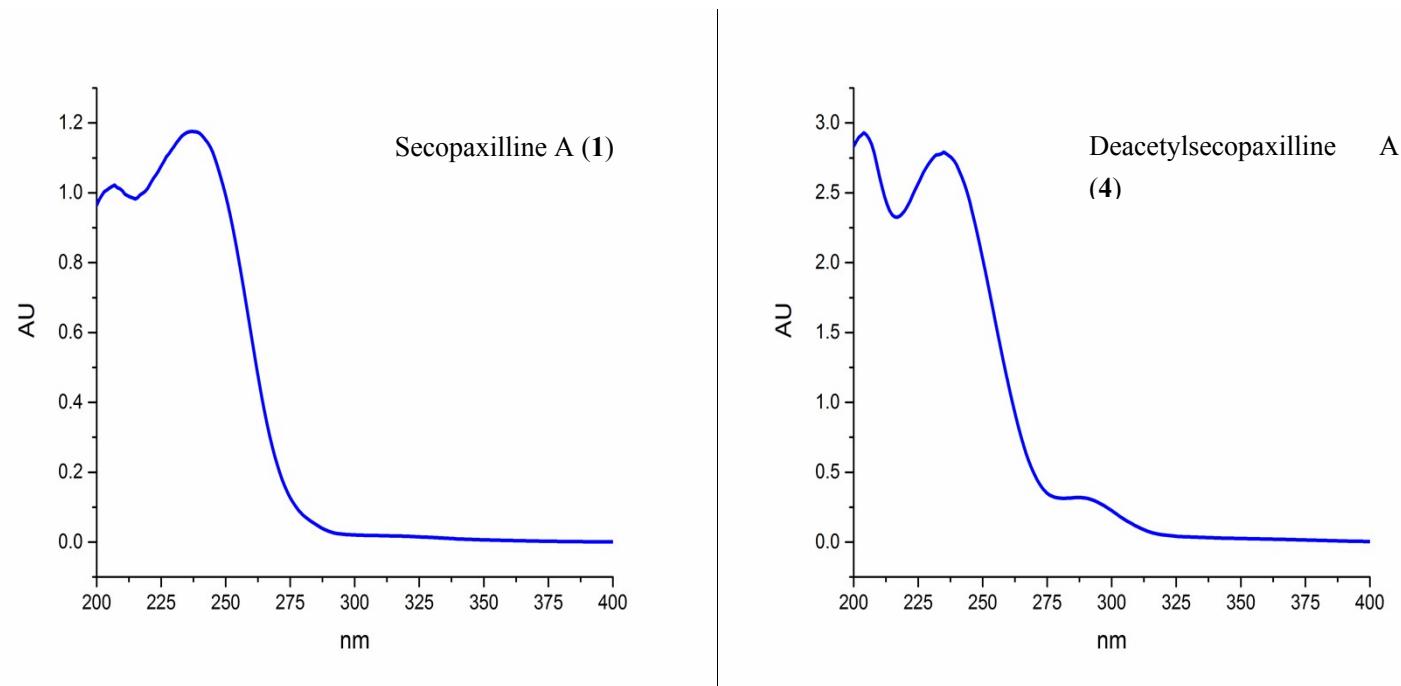


Figure S22. IR spectrum of secopaxilline A (**1**)

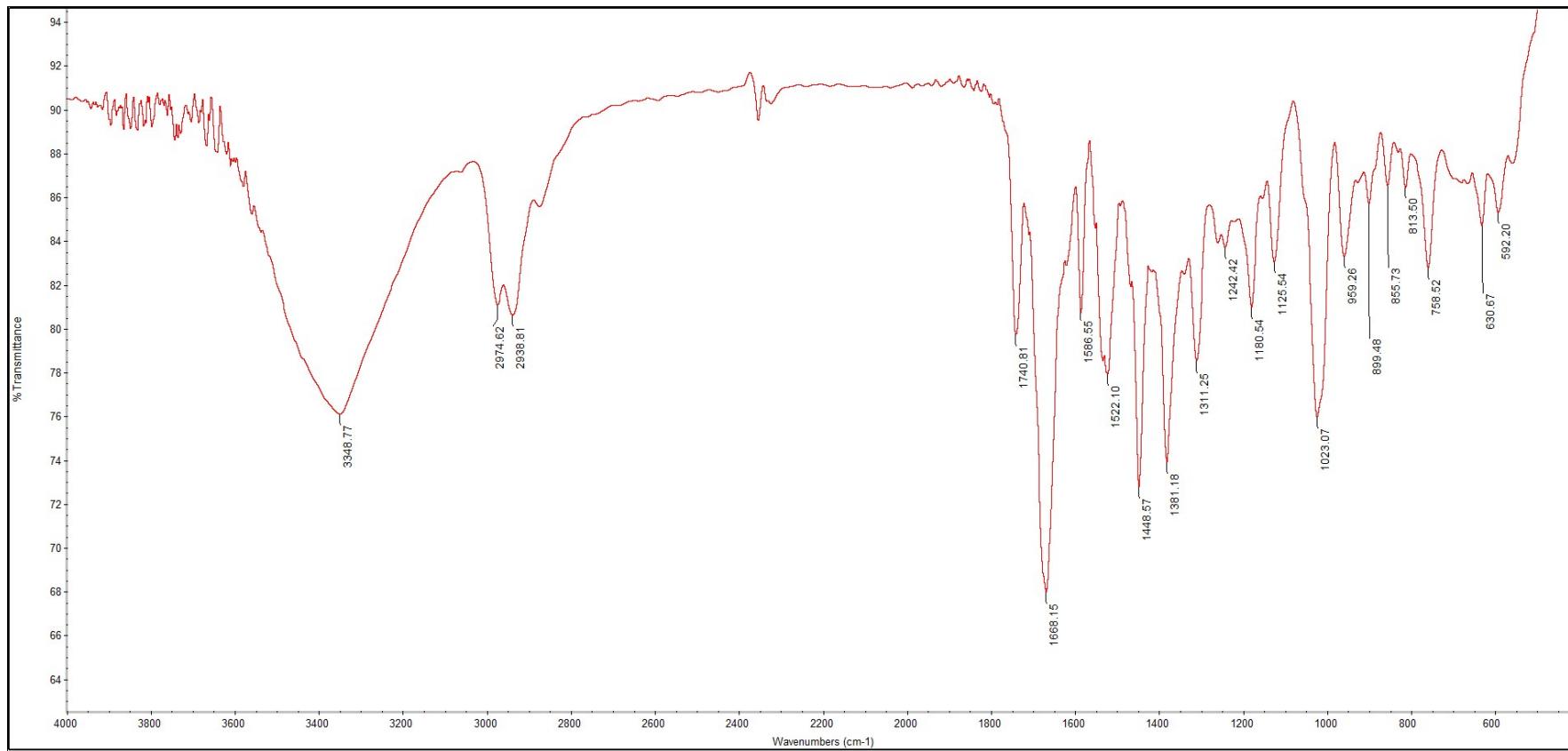


Figure S23. IR spectrum of deacetylsecopaxilline A (**4**)

