

## Supplementary data

# **Dokdolipids A–C, Hydroxylated Rhamnolipids from the Marine-Derived Actinomycete *Actinoalloteichus hymeniacidonis***

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### Elemental Composition Report

Single Mass Analysis  
Tolerance = 5.0 PPM / DBE: min = -1.5, max = 50.0  
Element prediction: Off  
Number of isotope peaks used for i-FIT = 3

Monoisotopic Mass, Even Electron Ions  
82 formula(e) evaluated with 1 results within limits (all results (up to 1000) for each mass)

Elements Used:

C: 1-40 H: 1-60 O: 1-20 Na: 1-1

Minimum: -1.5

Maximum: 100.0 5.0 50.0

Mass	Calc. Mass	mDa	PPM	DBE	i-FIT	Norm	Conf(%)	Formula
485.3094	485.3090	0.4	0.8	1.5	683.2	n/a	n/a	C <sub>24</sub> H <sub>46</sub> O <sub>8</sub> Na

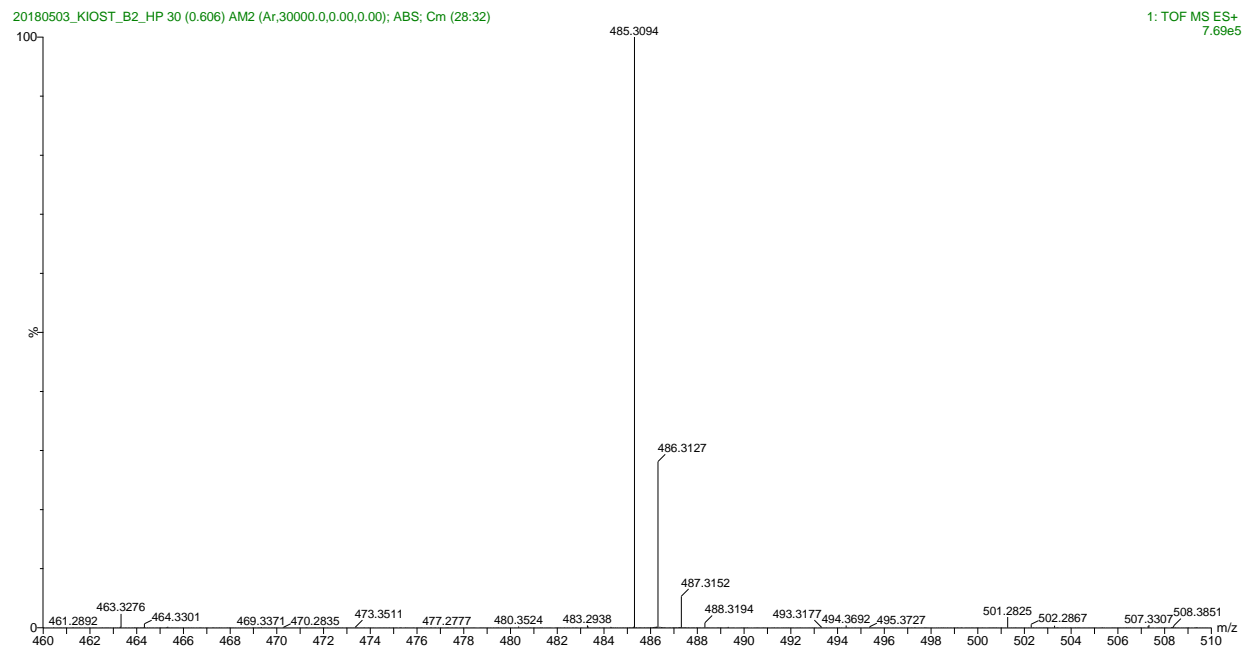


Figure S1. HRESIMS data of dokdolipid A (1).

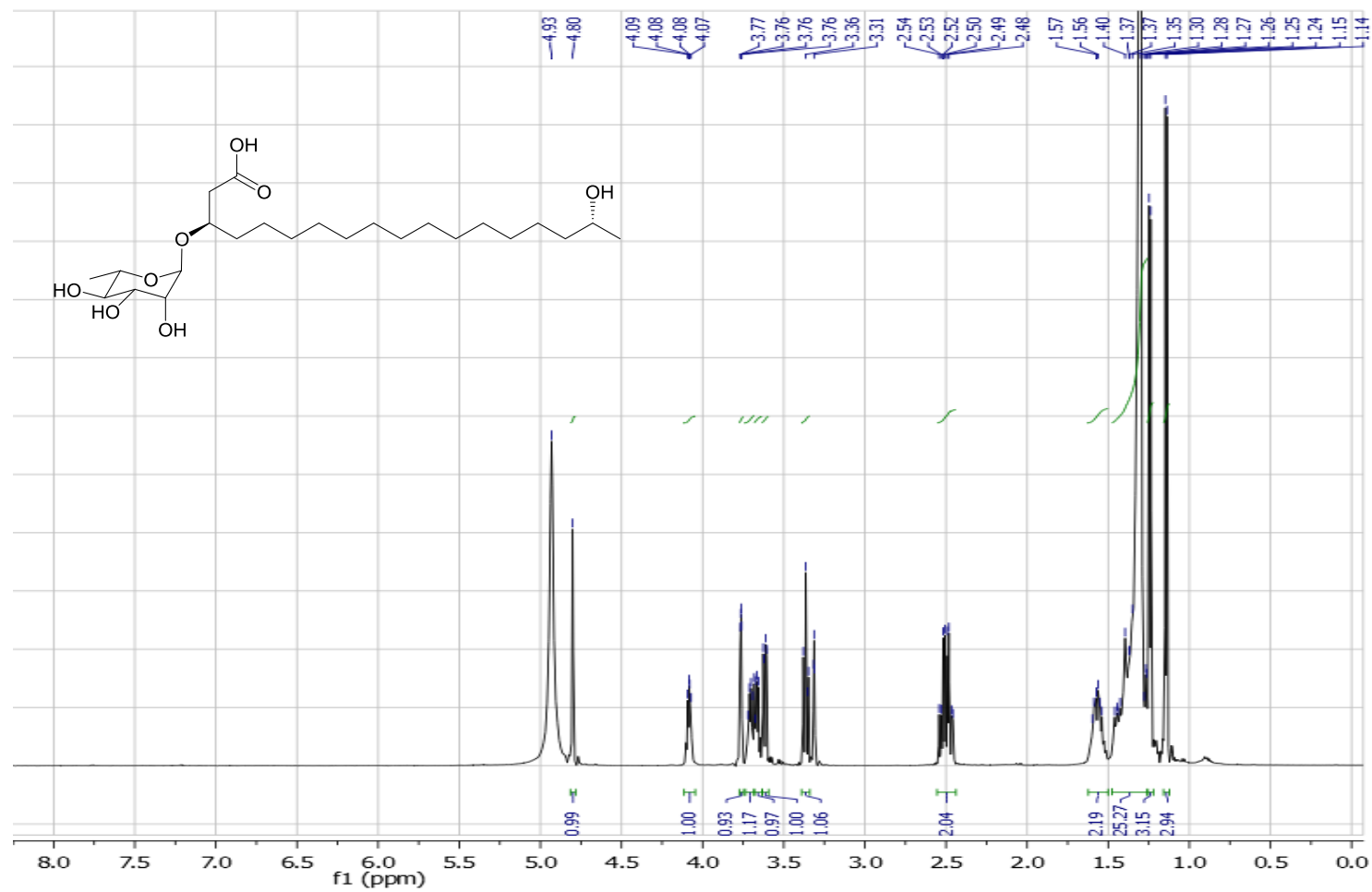


Figure S2. <sup>1</sup>H NMR spectrum of dokdolipid A (1).

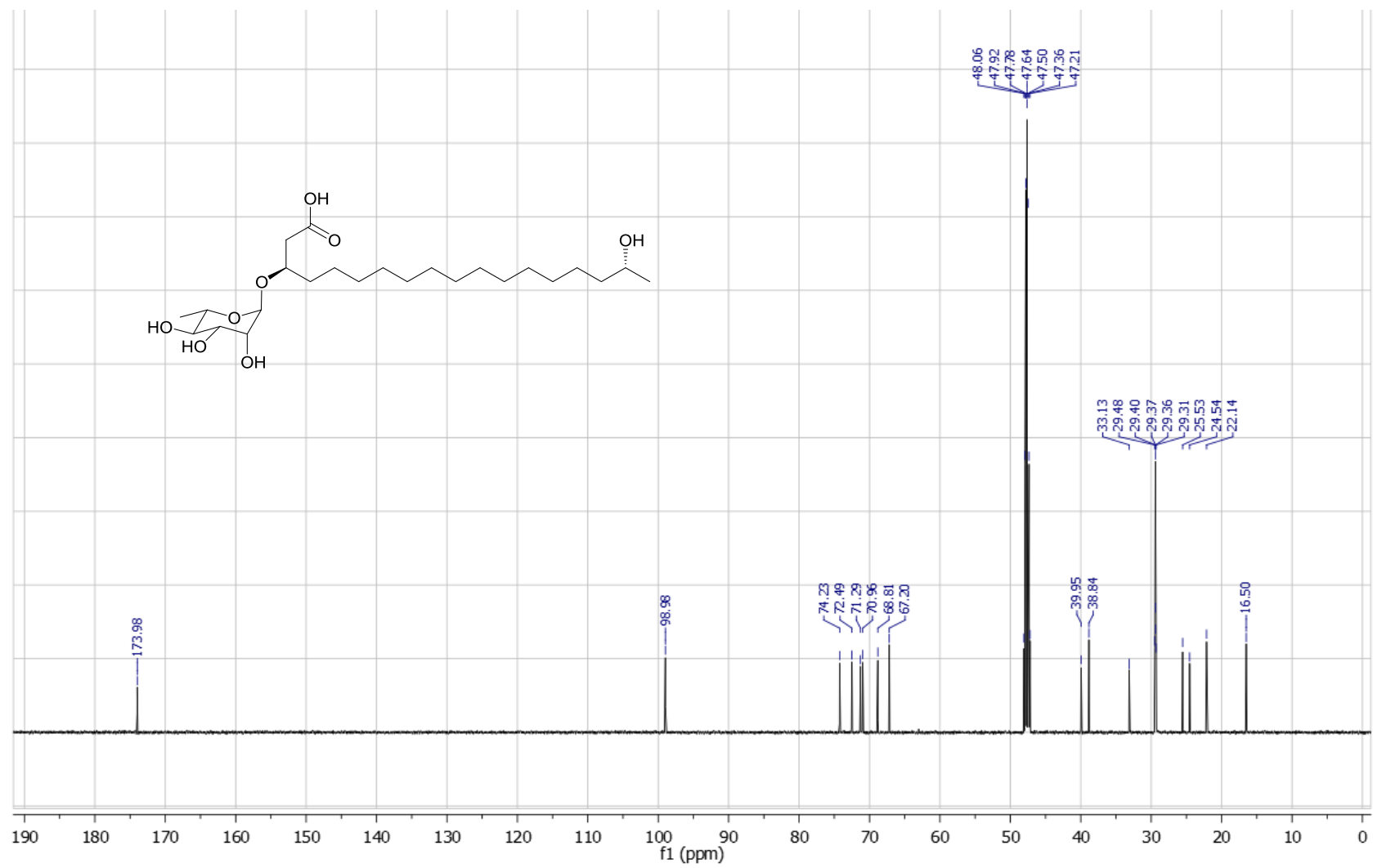


Figure S3.  $^{13}\text{C}$  NMR spectrum of dokdolipid A (1).

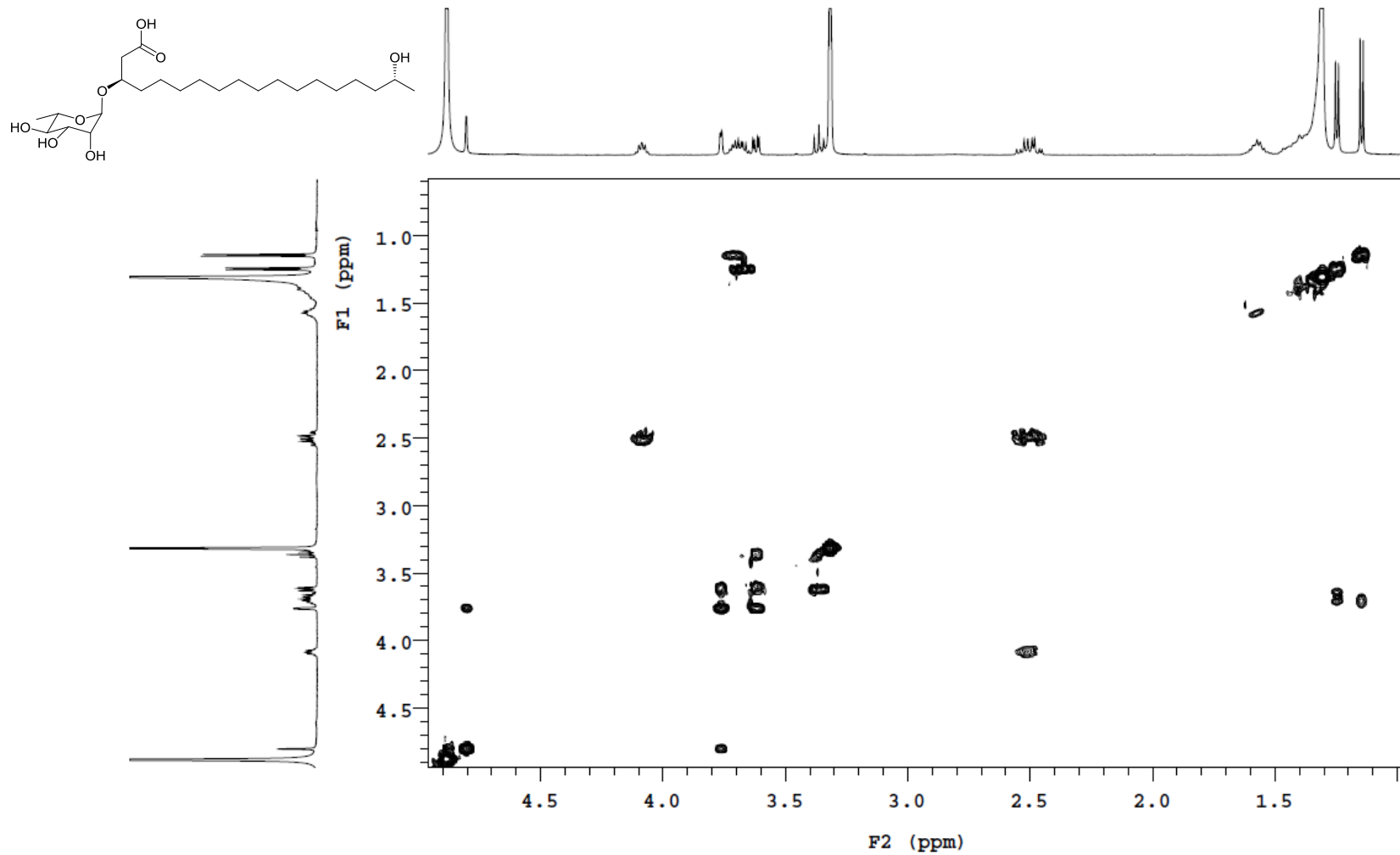


Figure S4.  $^1\text{H}$ - $^1\text{H}$  COSY spectrum of dokdolipid A (1).

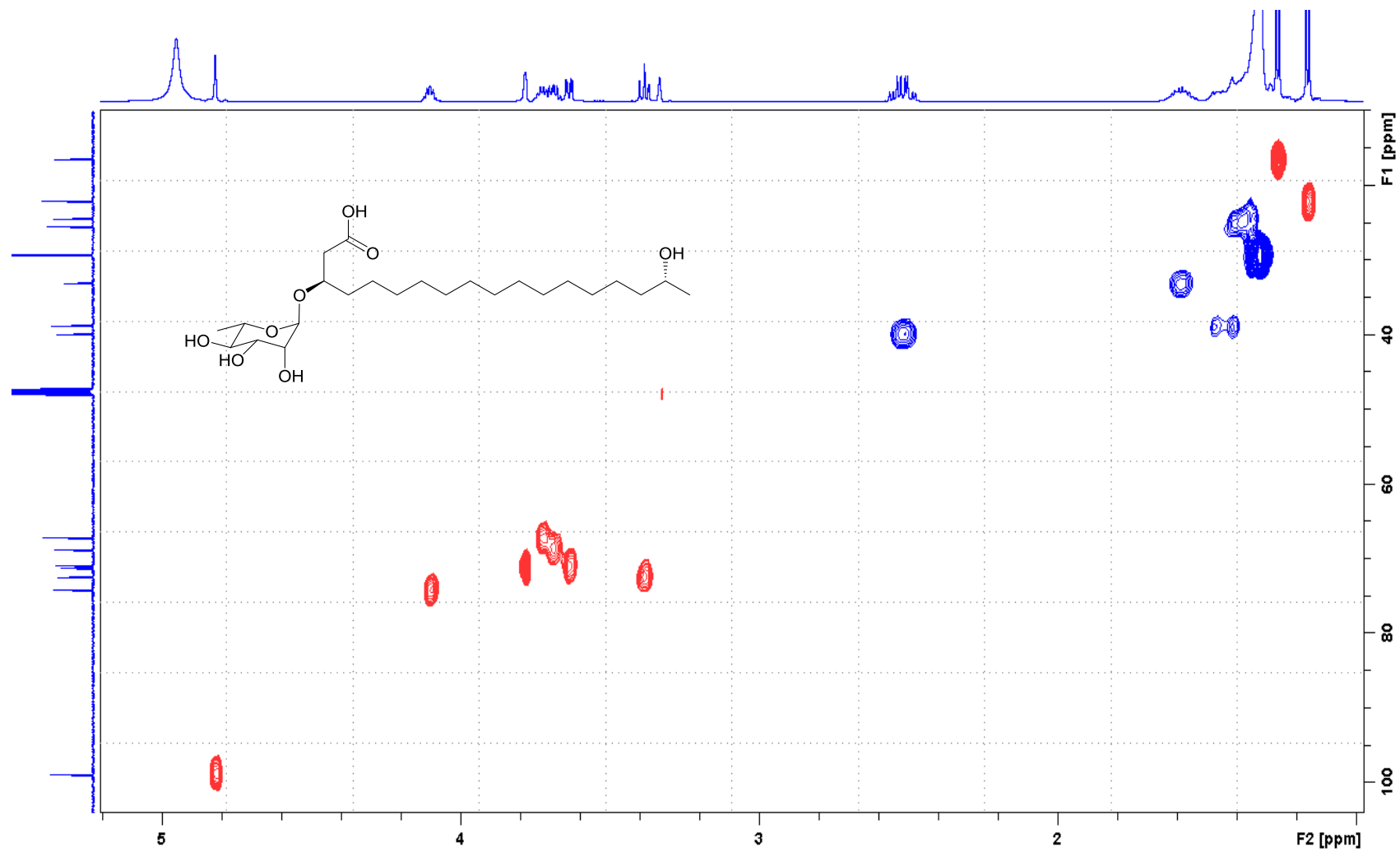


Figure S5. HSQC spectrum of dokdolipid A (1).

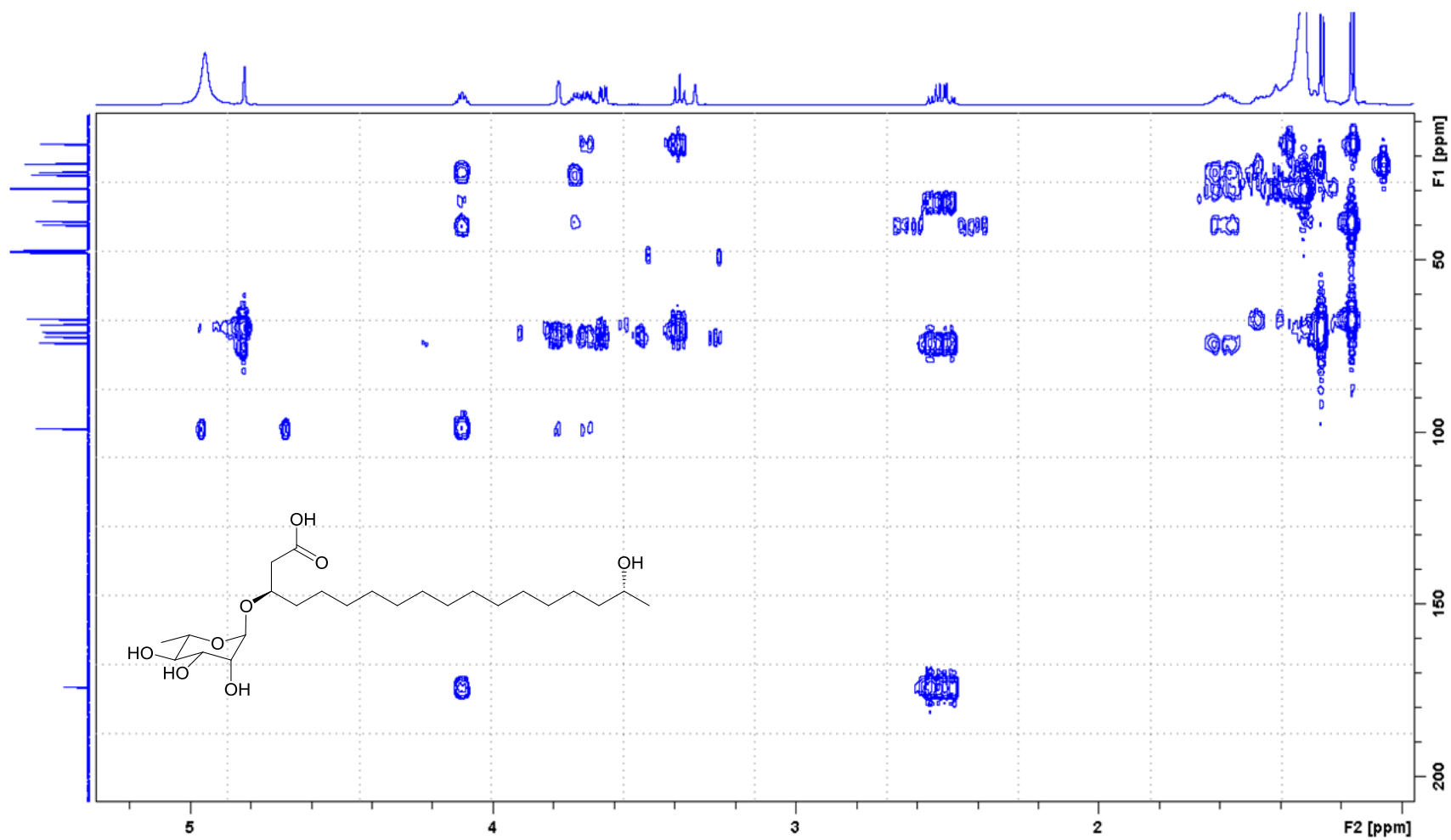


Figure S6. HMBC spectrum of dokdolipid A (1).



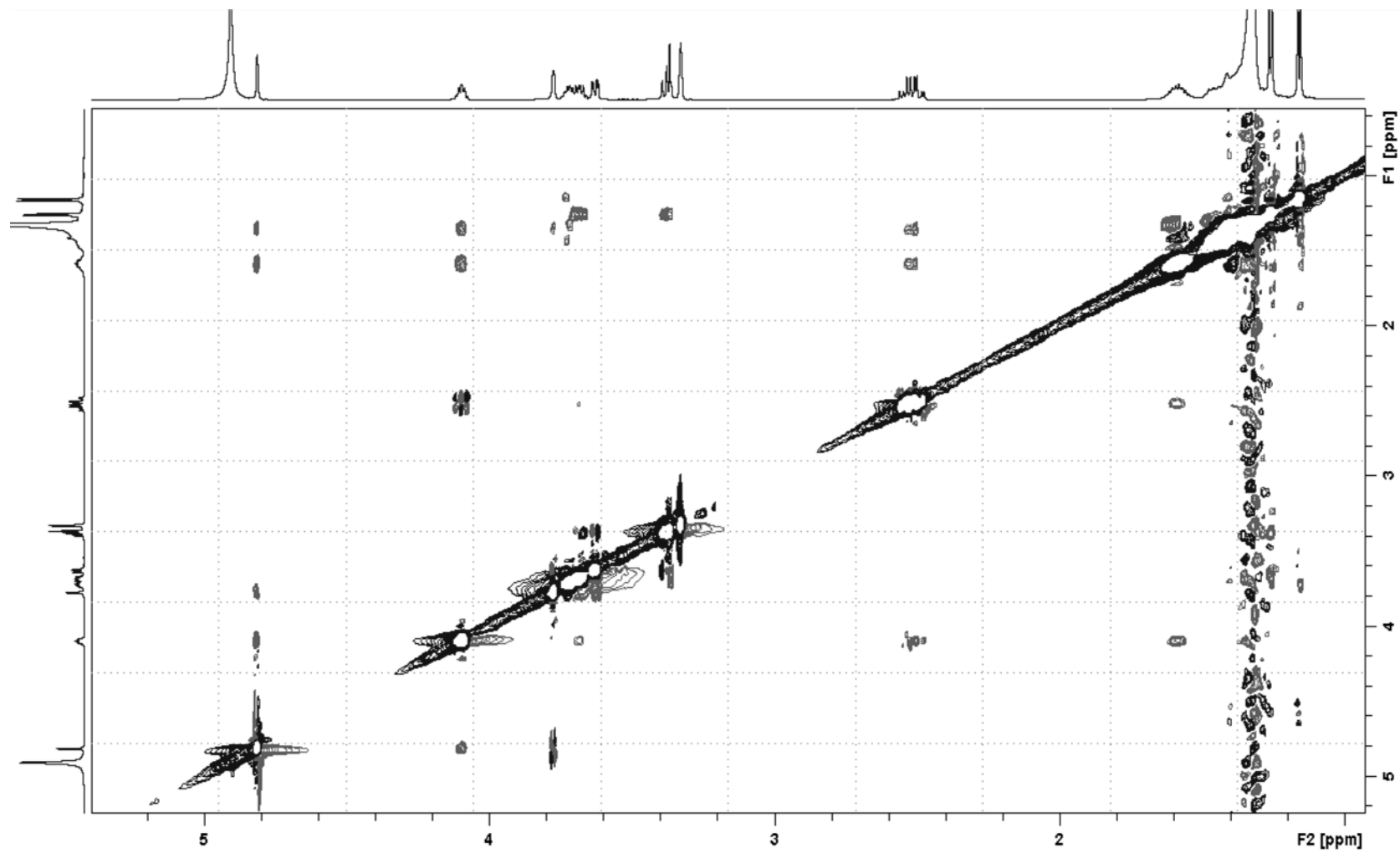


Figure S7. ROESY spectrum of dokdolipid A (1).

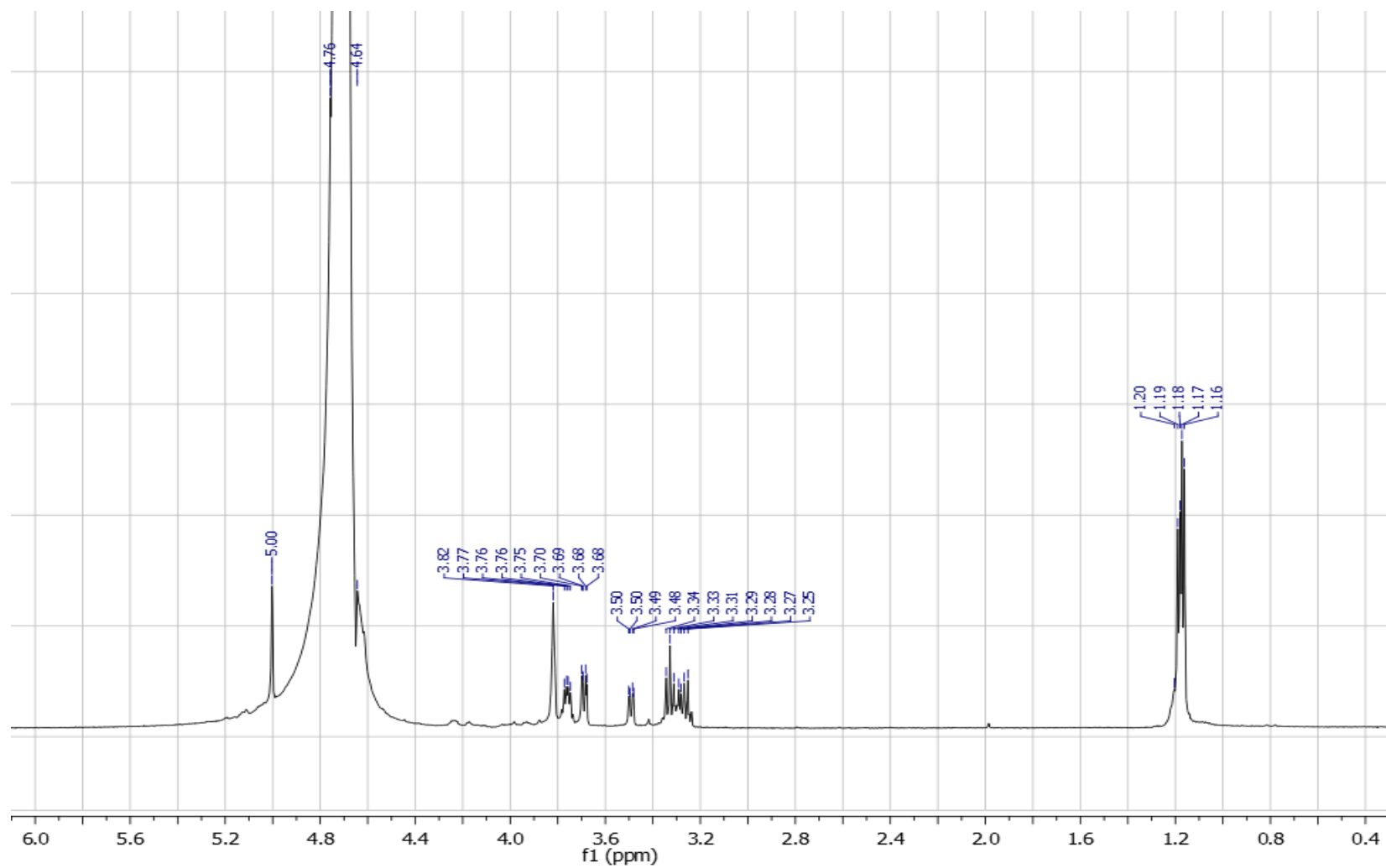


Figure S8. <sup>1</sup>H NMR spectrum of the hydrolysate of dokdolipid A (1).

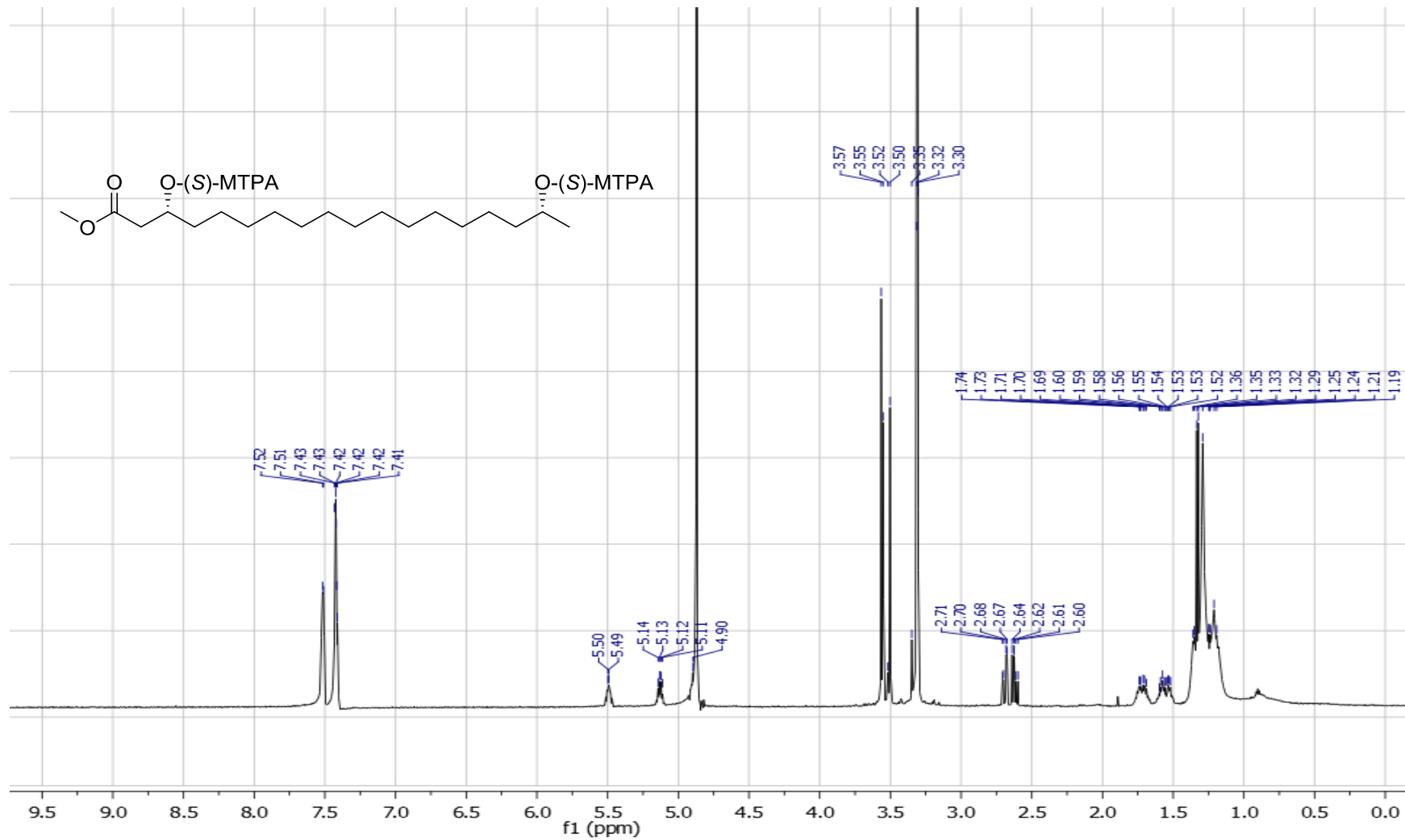


Figure S9.  $^1\text{H}$  NMR spectrum of (S)-MTPA (**1a**) ester.

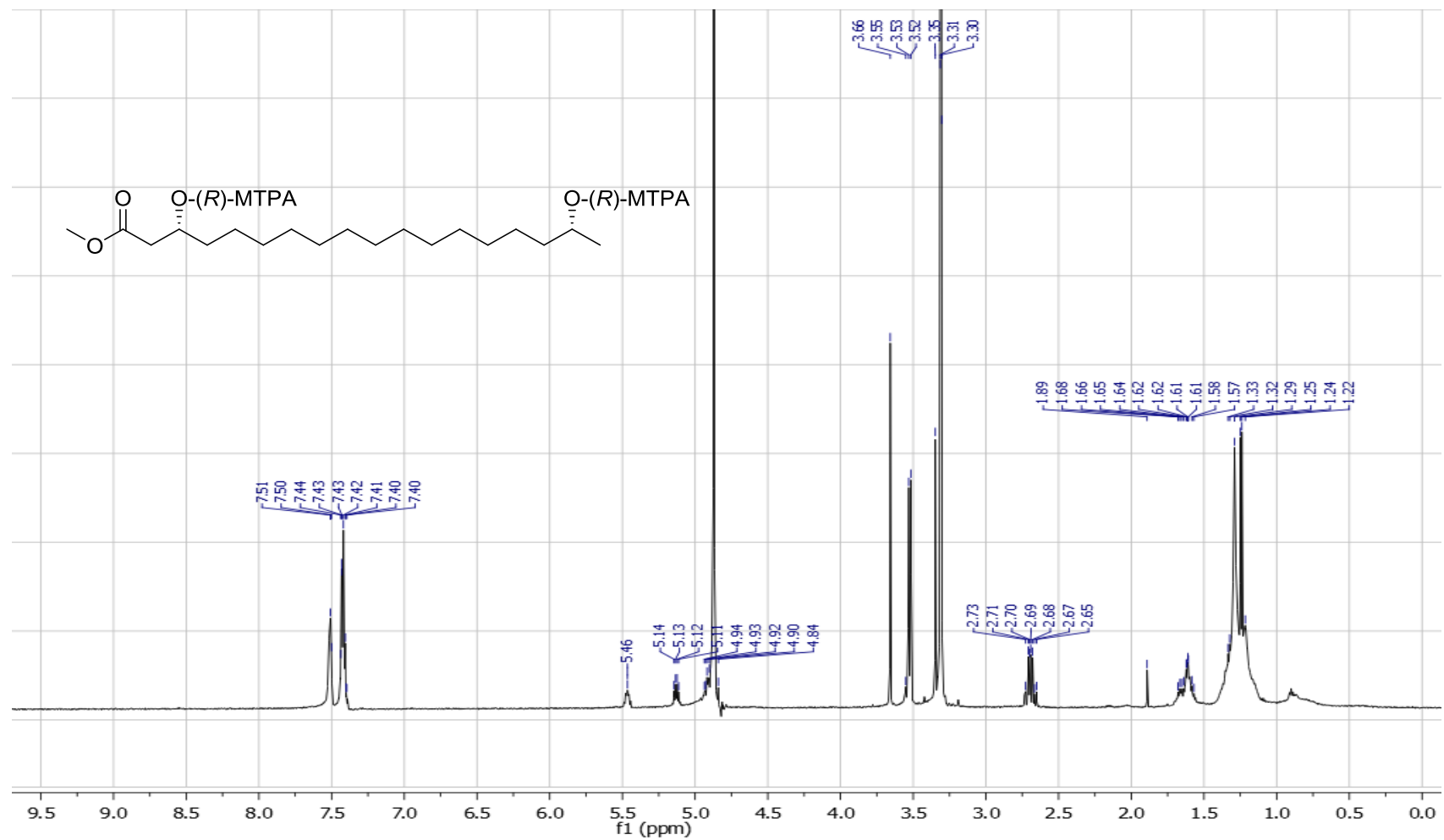


Figure S10.  $^1\text{H}$  NMR spectrum of (*R*)-MTPA (**1b**) ester.

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Monoisotopic Mass, Even Electron Ions  
79 formula(e) evaluated with 1 results within limits (all results (up to 1000) for each mass)

Elements Used:

C: 1-40 H: 1-60 O: 1-20 Na: 1-1

Minimum: -1.5

Maximum: 100.0 5.0 50.0

Mass	Calc. Mass	mDa	PPM	DBE	i-FIT	Norm	Conf(%)	Formula
483.2936	483.2934	0.2	0.4	2.5	686.0	n/a	n/a	C <sub>24</sub> H <sub>44</sub> O <sub>8</sub> Na

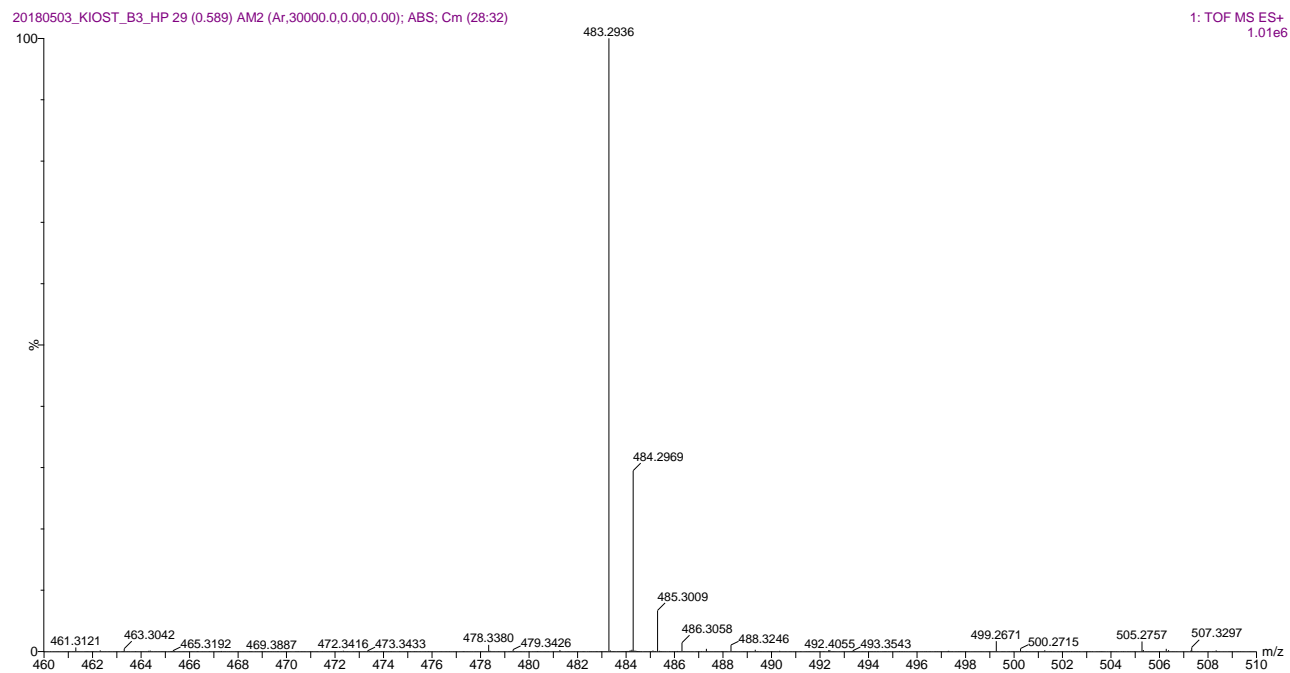


Figure S11. HRESIMS data of dokdolipid B (2).

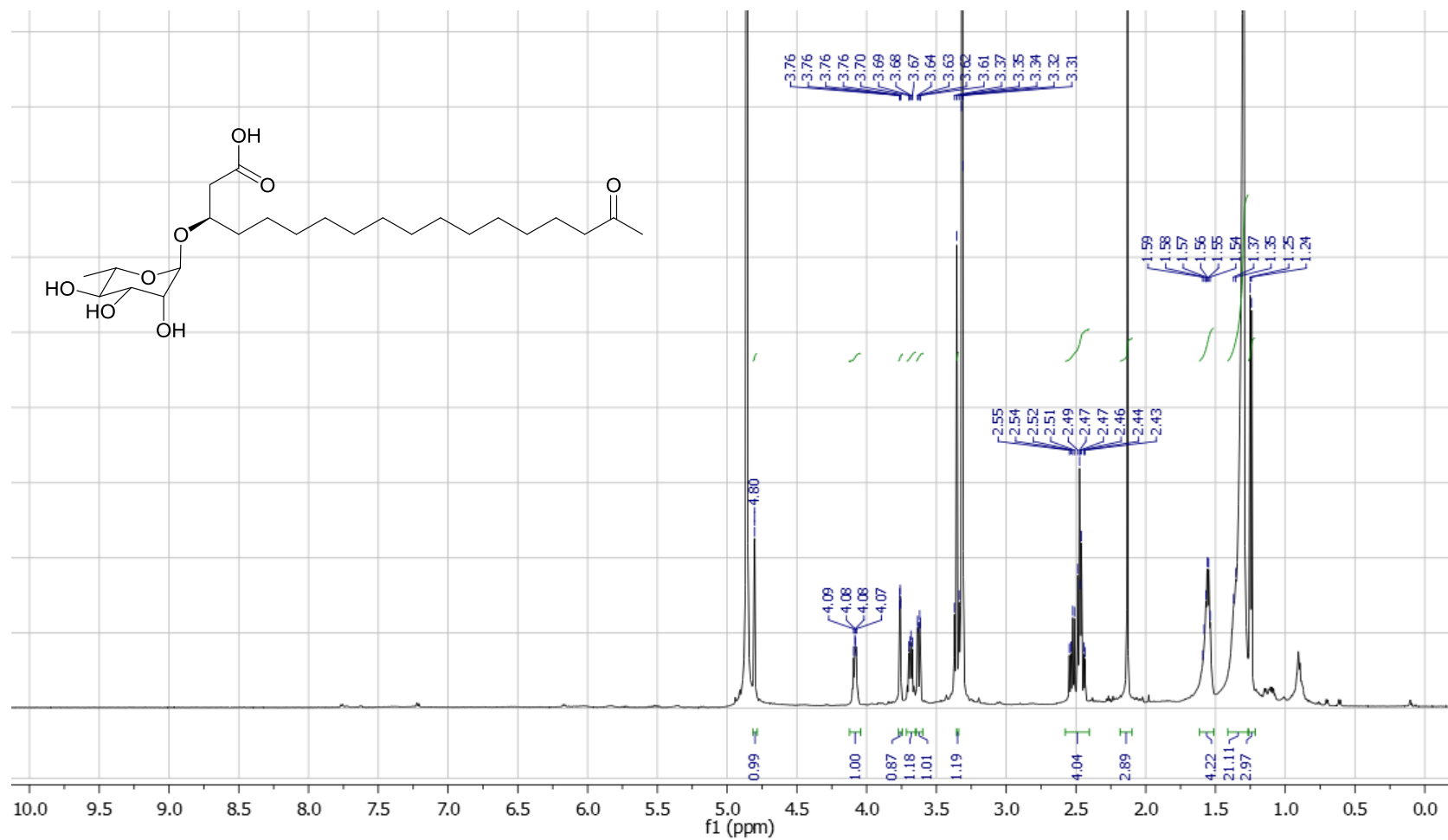


Figure S12. <sup>1</sup>H NMR spectrum of dokdolipid B (2).

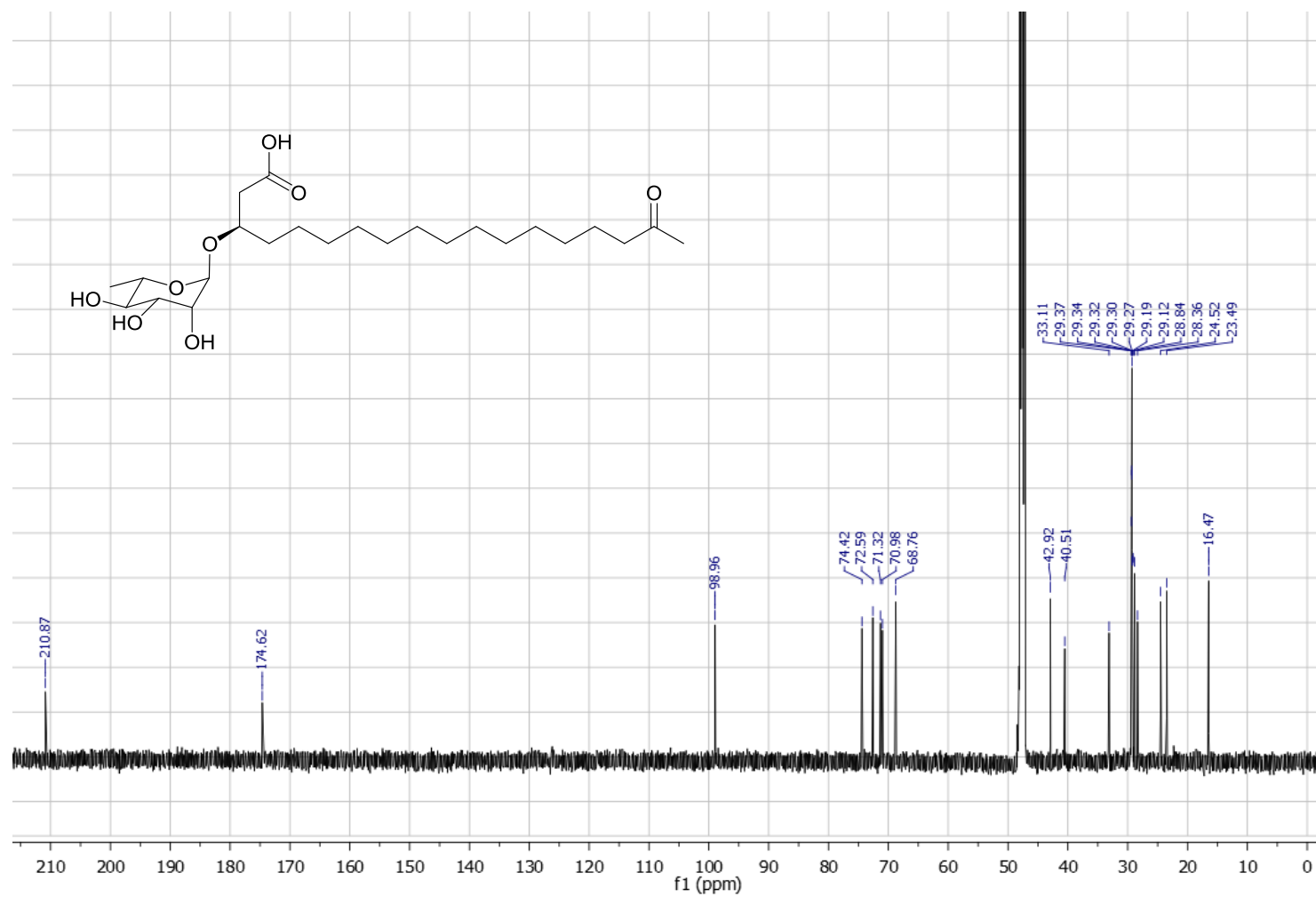


Figure S13. <sup>13</sup>C NMR spectrum of dokdolipid B (2).

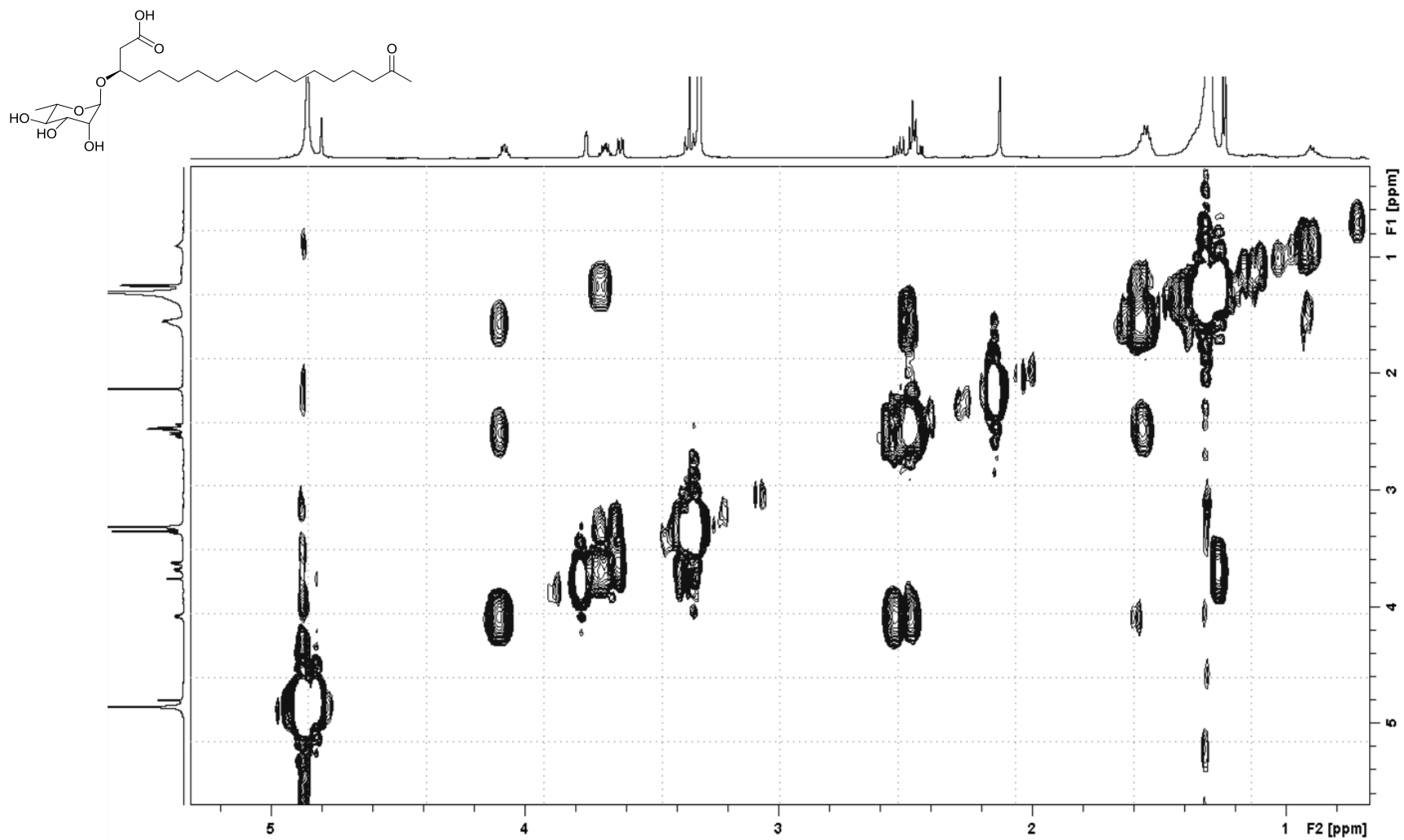


Figure S14.  $^1\text{H}$ - $^1\text{H}$  COSY spectrum of dokdolipid B (2).



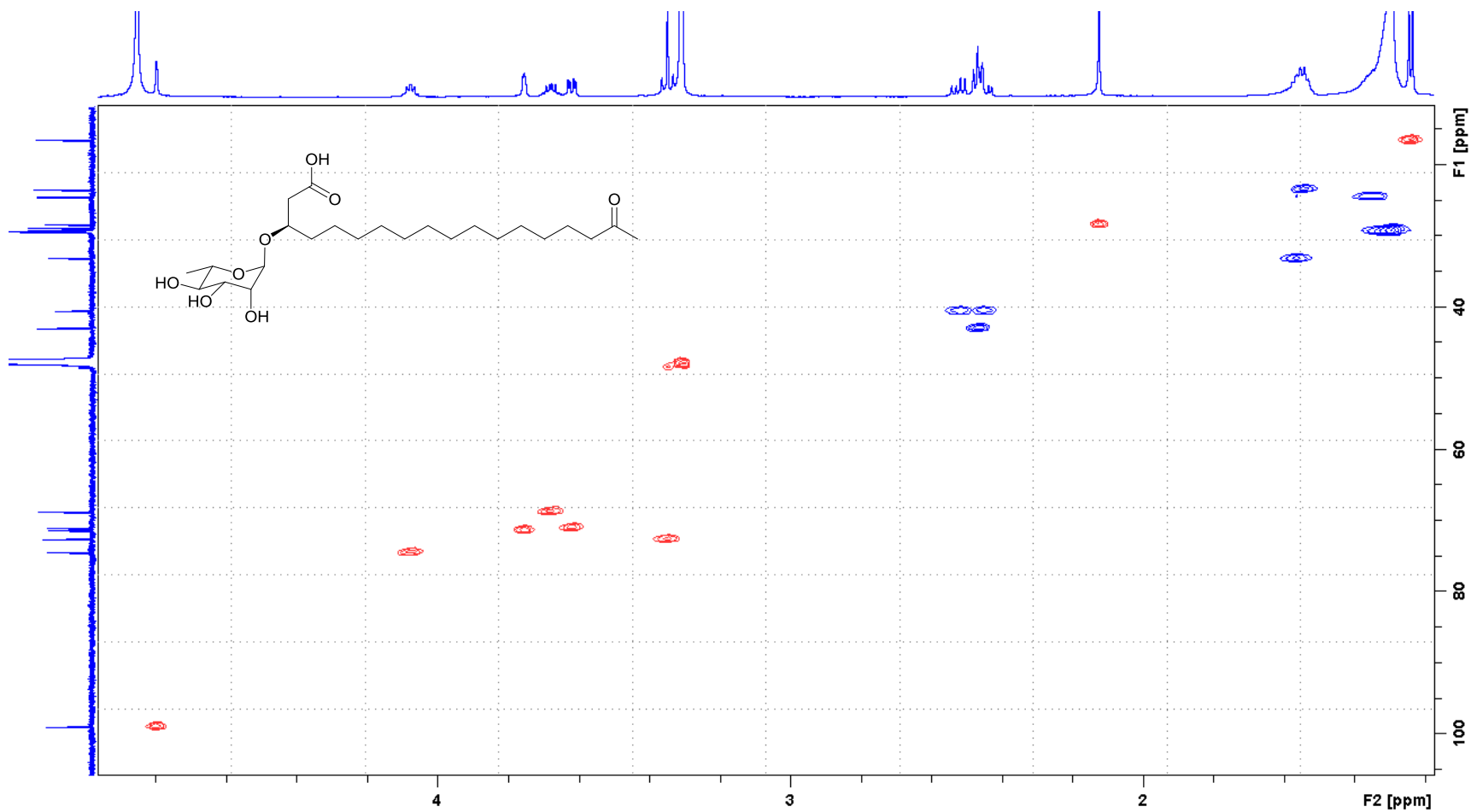


Figure S15. HSQC spectrum of dokdolipid B (2).

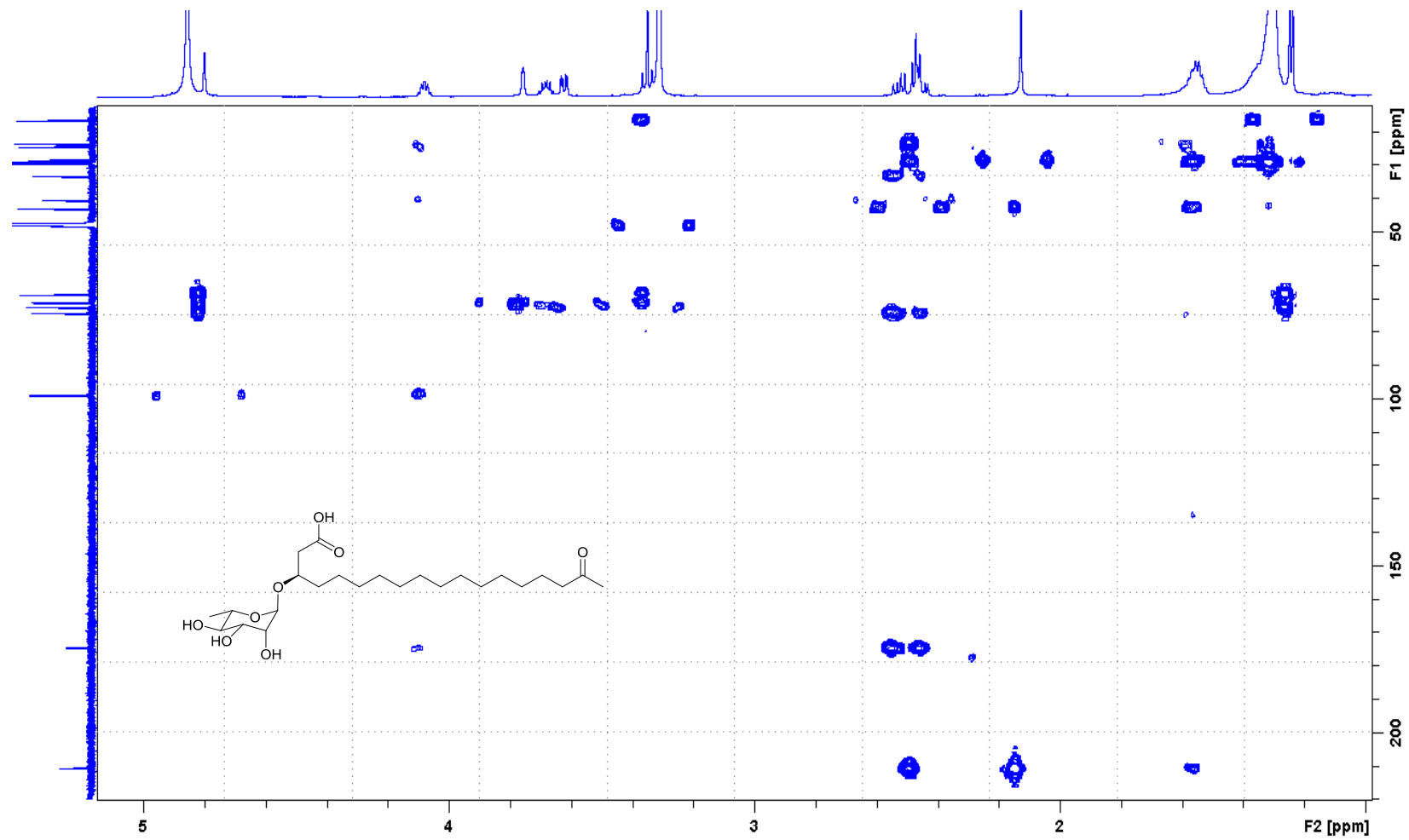


Figure S16. HMBC spectrum of dokdolipid B (2).

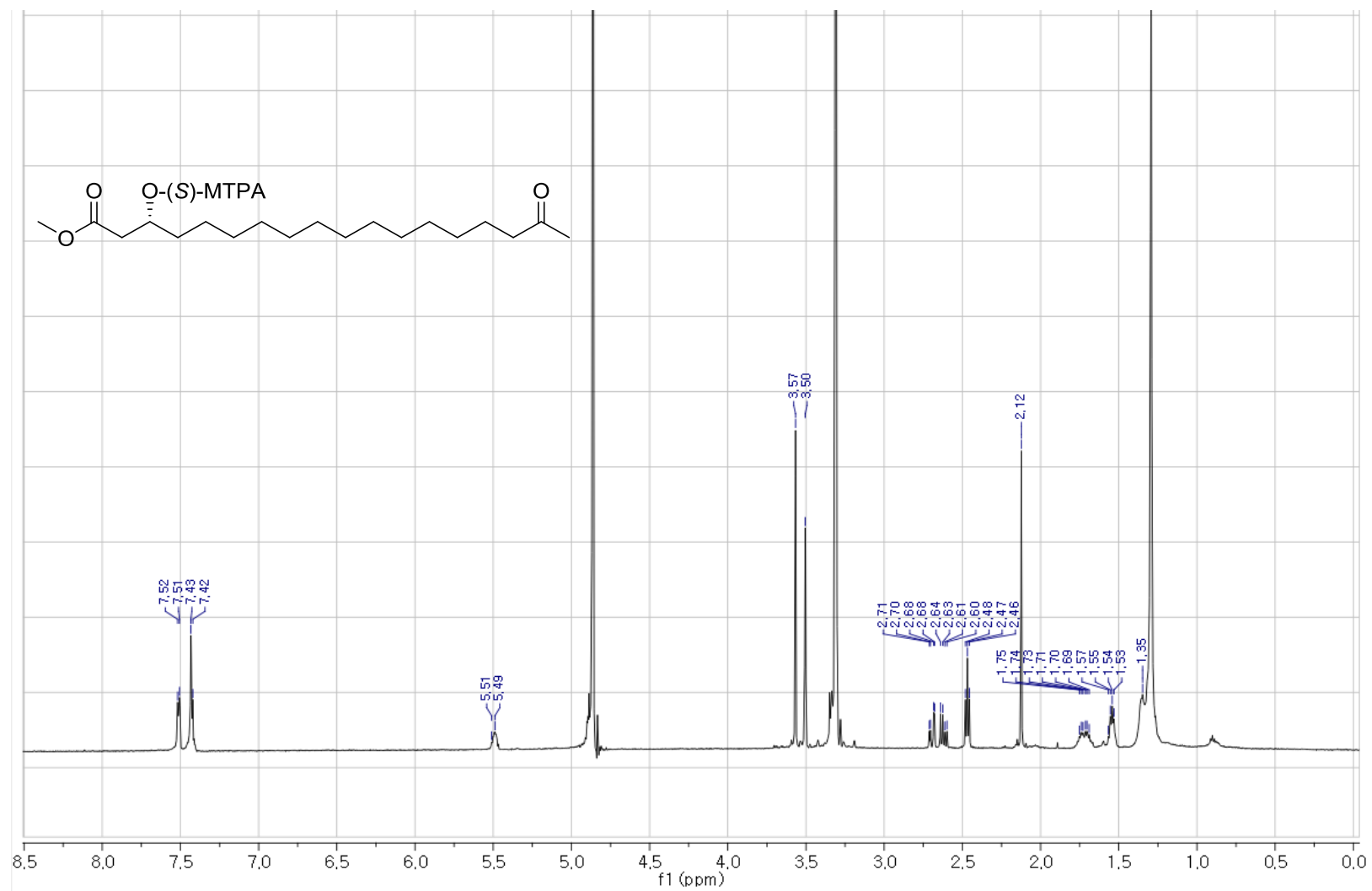


Figure S17.  $^1\text{H}$  NMR spectrum of *(S)*-MTPA (**2a**) ester.

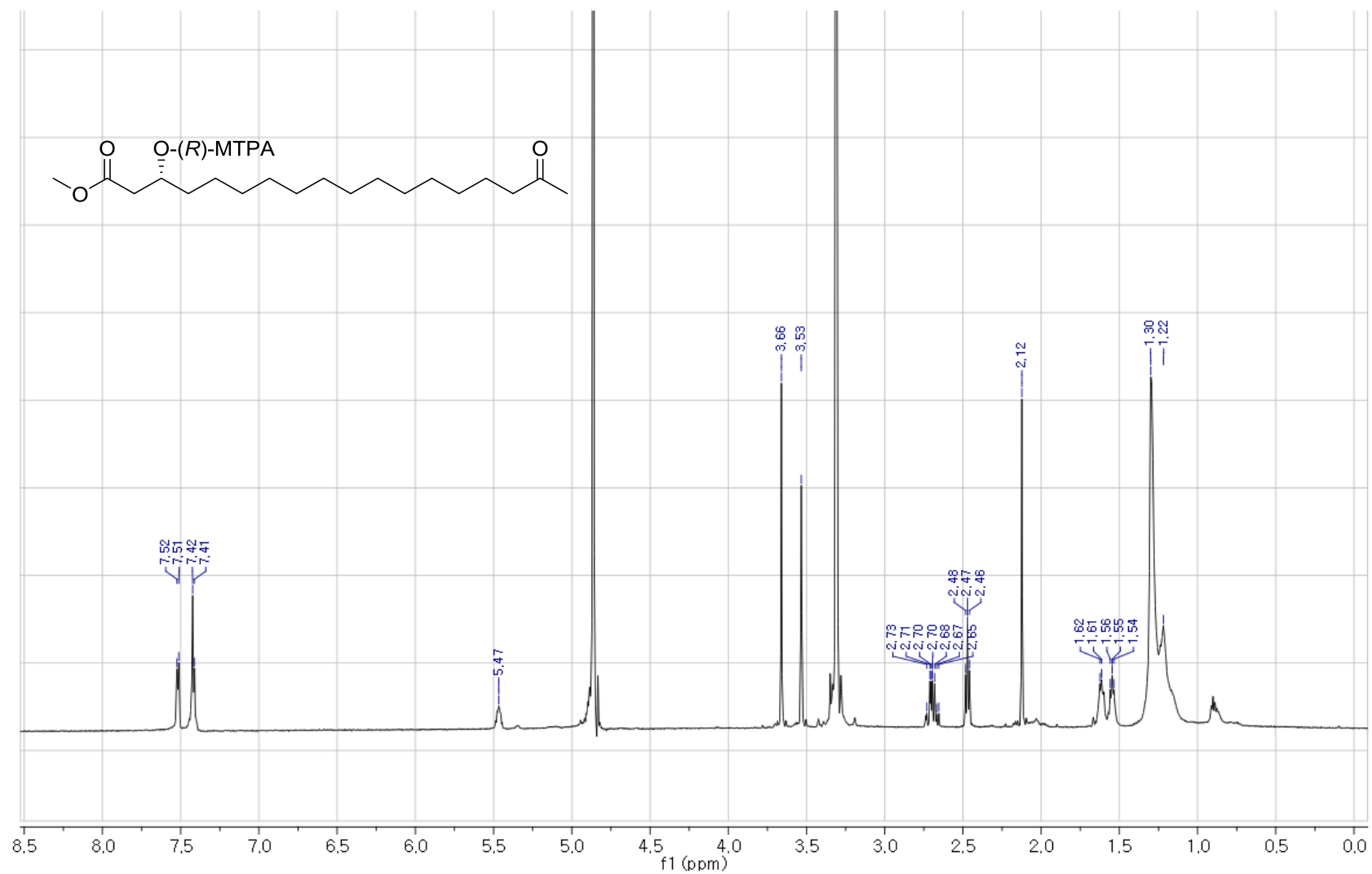


Figure S18. <sup>1</sup>H NMR spectrum of (*R*)-MTPA (**2b**) ester.

### Elemental Composition Report

Single Mass Analysis  
Tolerance = 5.0 PPM / DBE: min = -1.5, max = 50.0  
Element prediction: Off  
Number of isotope peaks used for i-FIT = 3

Monoisotopic Mass, Even Electron Ions

73 formula(e) evaluated with 1 results within limits (all results (up to 1000) for each mass)

Elements Used:

C: 1-40 H: 1-60 O: 1-20 Na: 1-1

Minimum: -1.5

Maximum: 100.0 5.0 50.0

Mass	Calc. Mass	mDa	PPM	DBE	i-FIT	Norm	Conf(%)	Formula
631.3669	631.3669	0.0	0.0	2.5	694.0	n/a	n/a	C30 H56 O12 Na

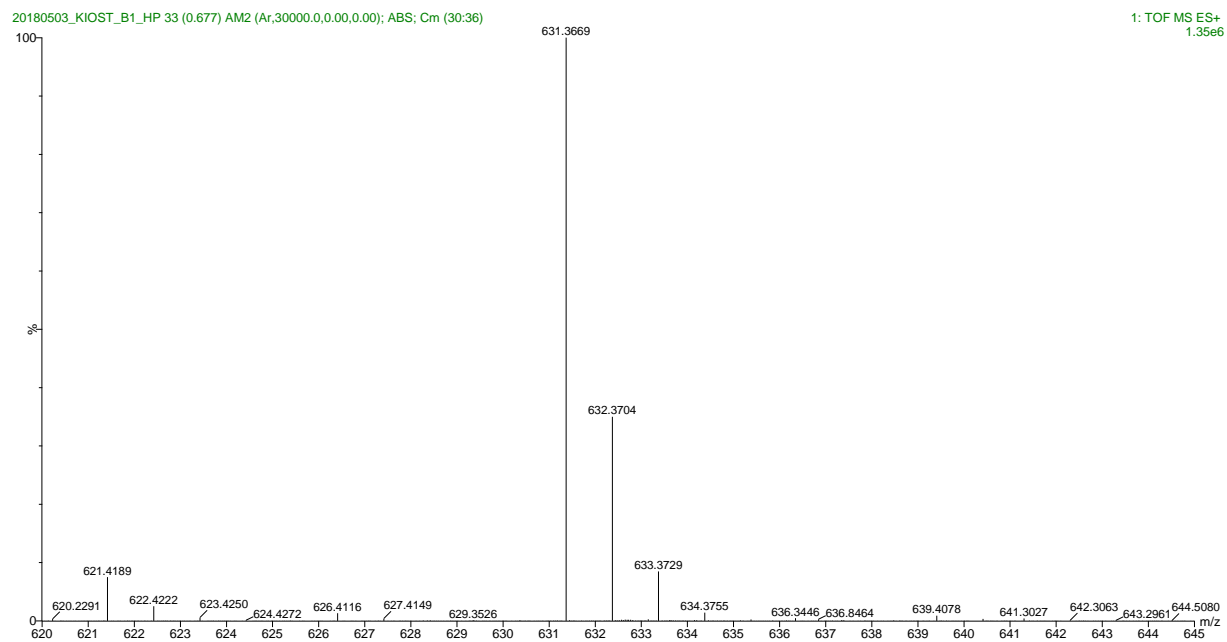


Figure S19. HRESIMS data of dokdolipid C (3).

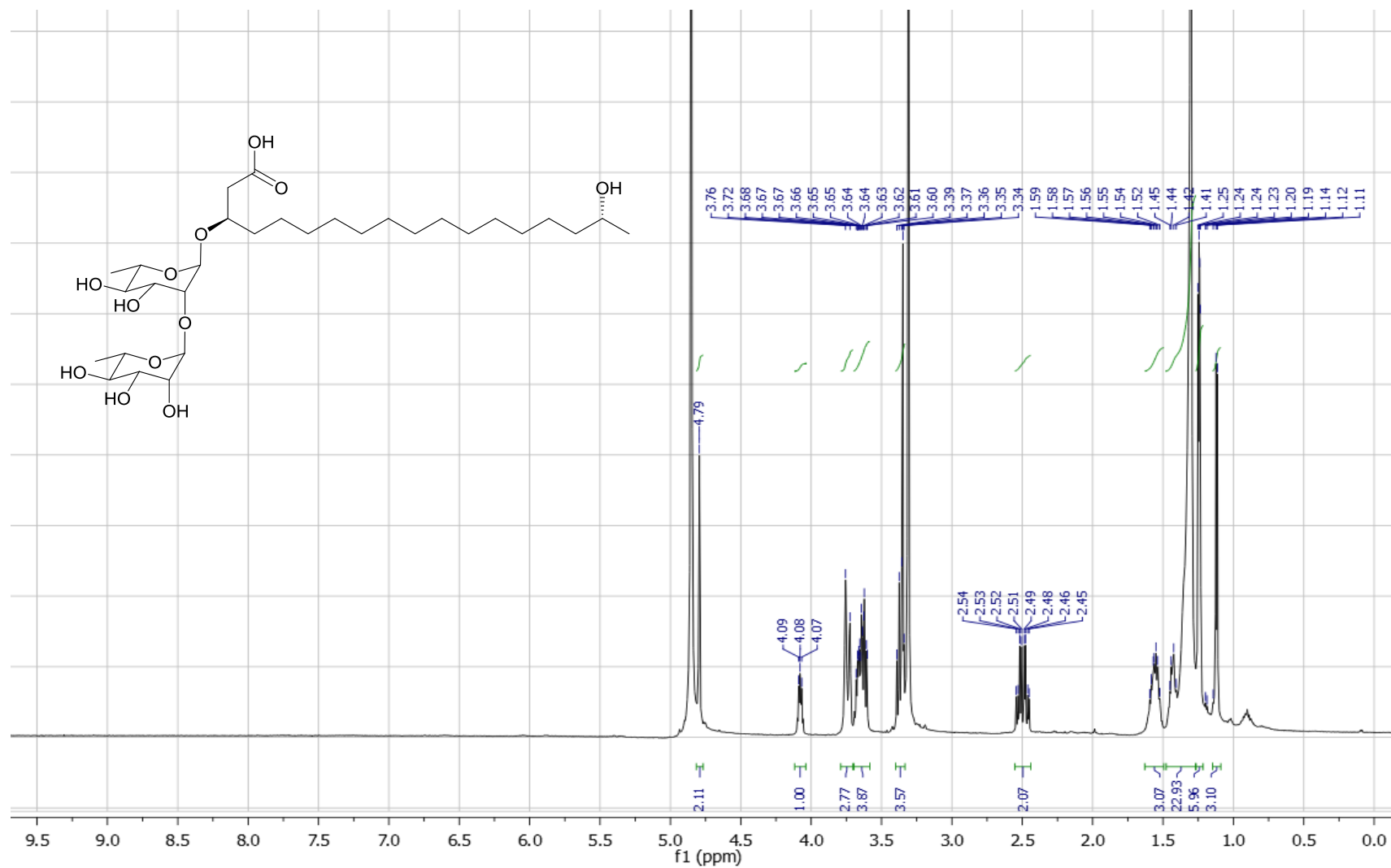


Figure S20. <sup>1</sup>H NMR spectrum of dokdolipid C (3).

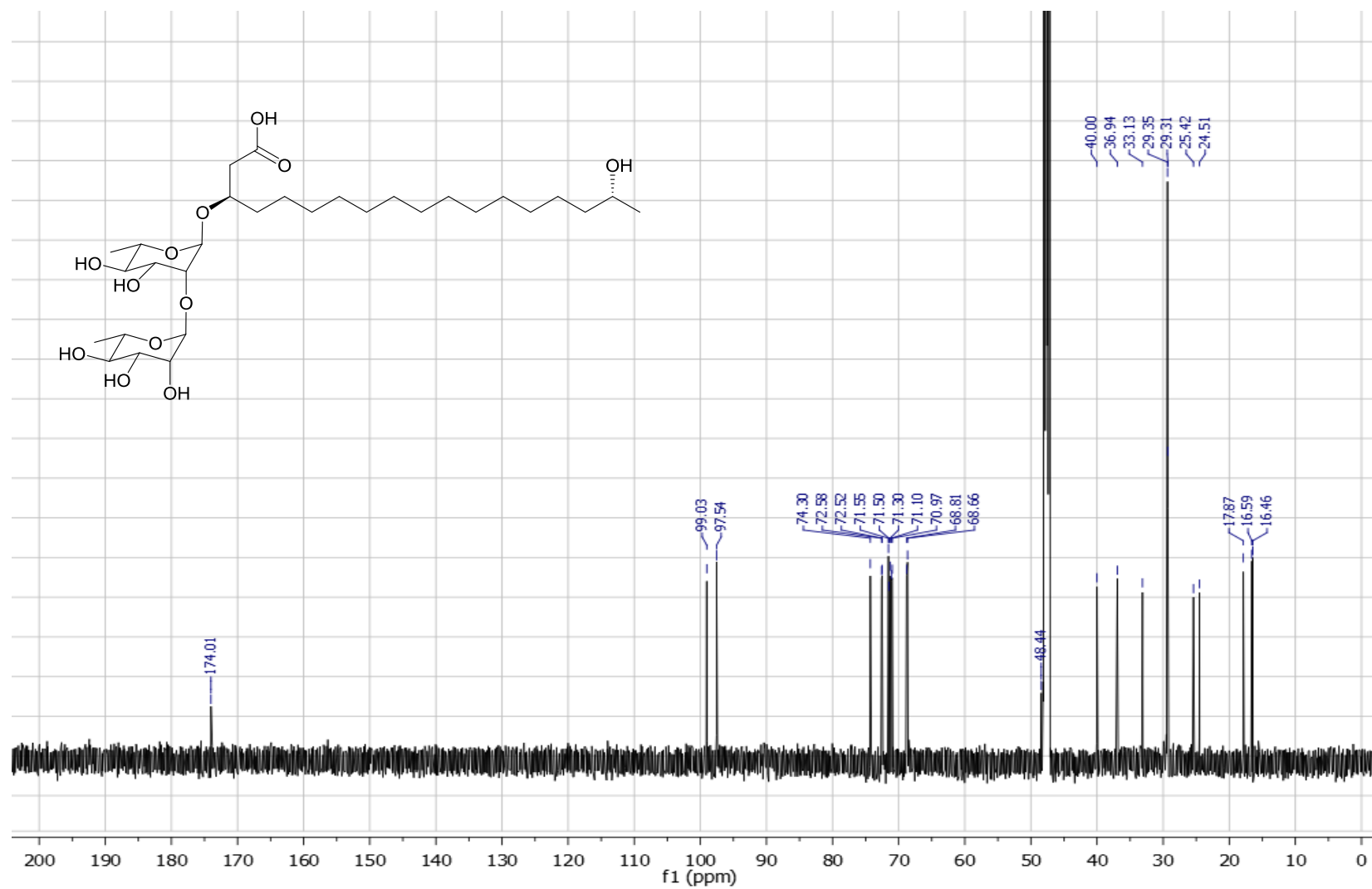


Figure S21. <sup>13</sup>C NMR spectrum of dokdolipid C (3).

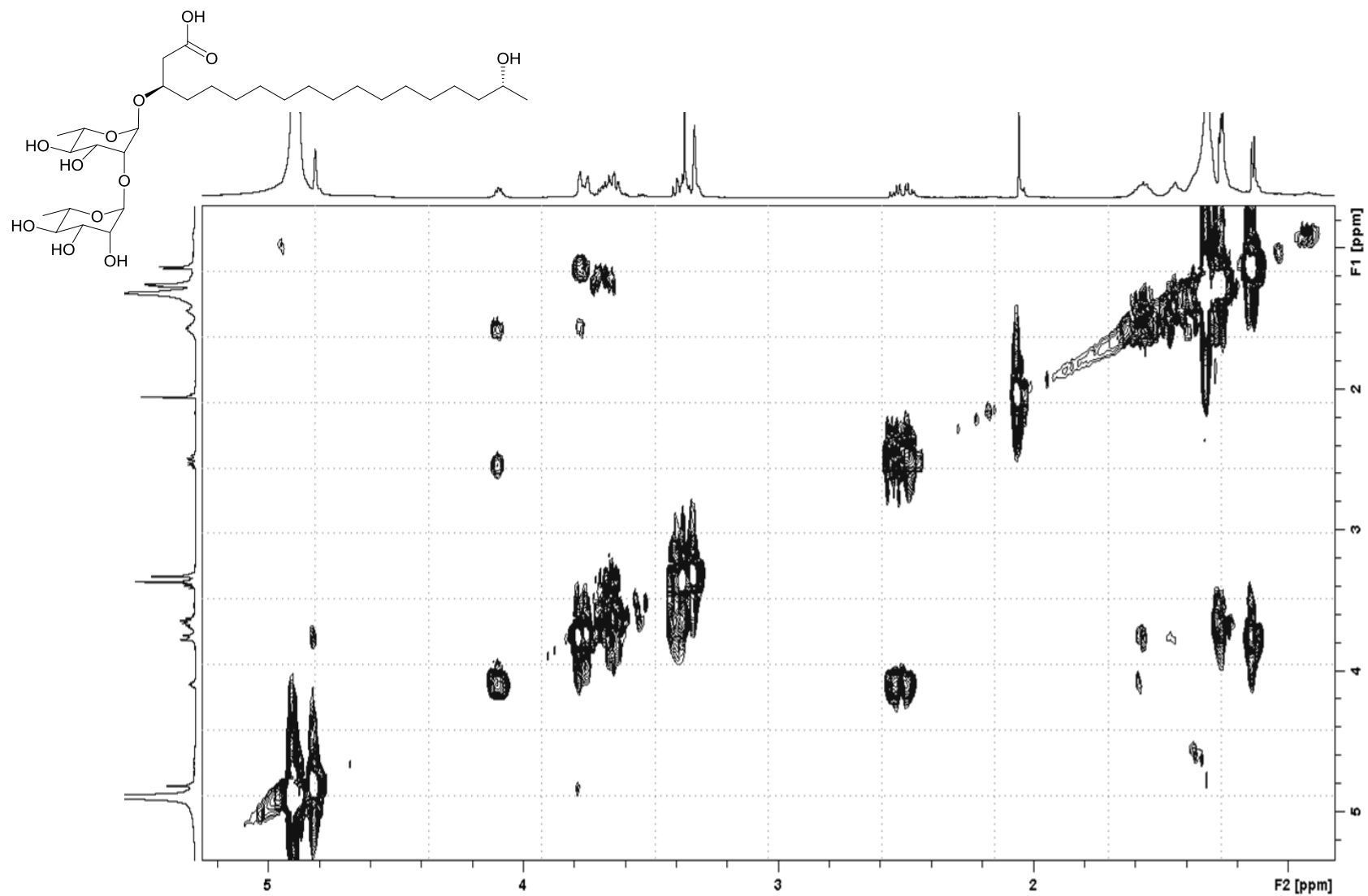


Figure S22.  $^1\text{H}$ - $^1\text{H}$  COSY spectrum of dokdolipid C (3).



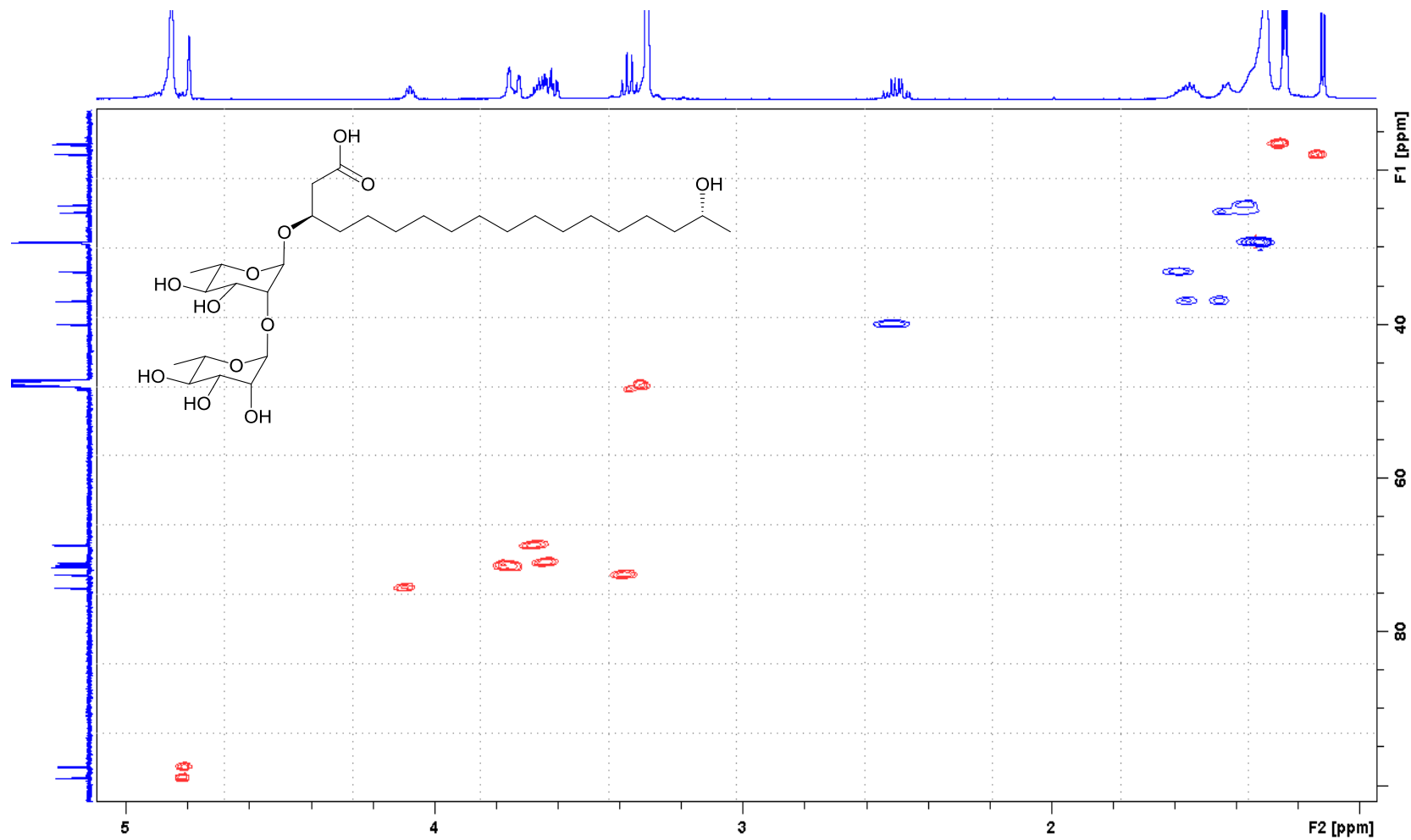


Figure S23. HSQC spectrum of dokdolipid C (3).

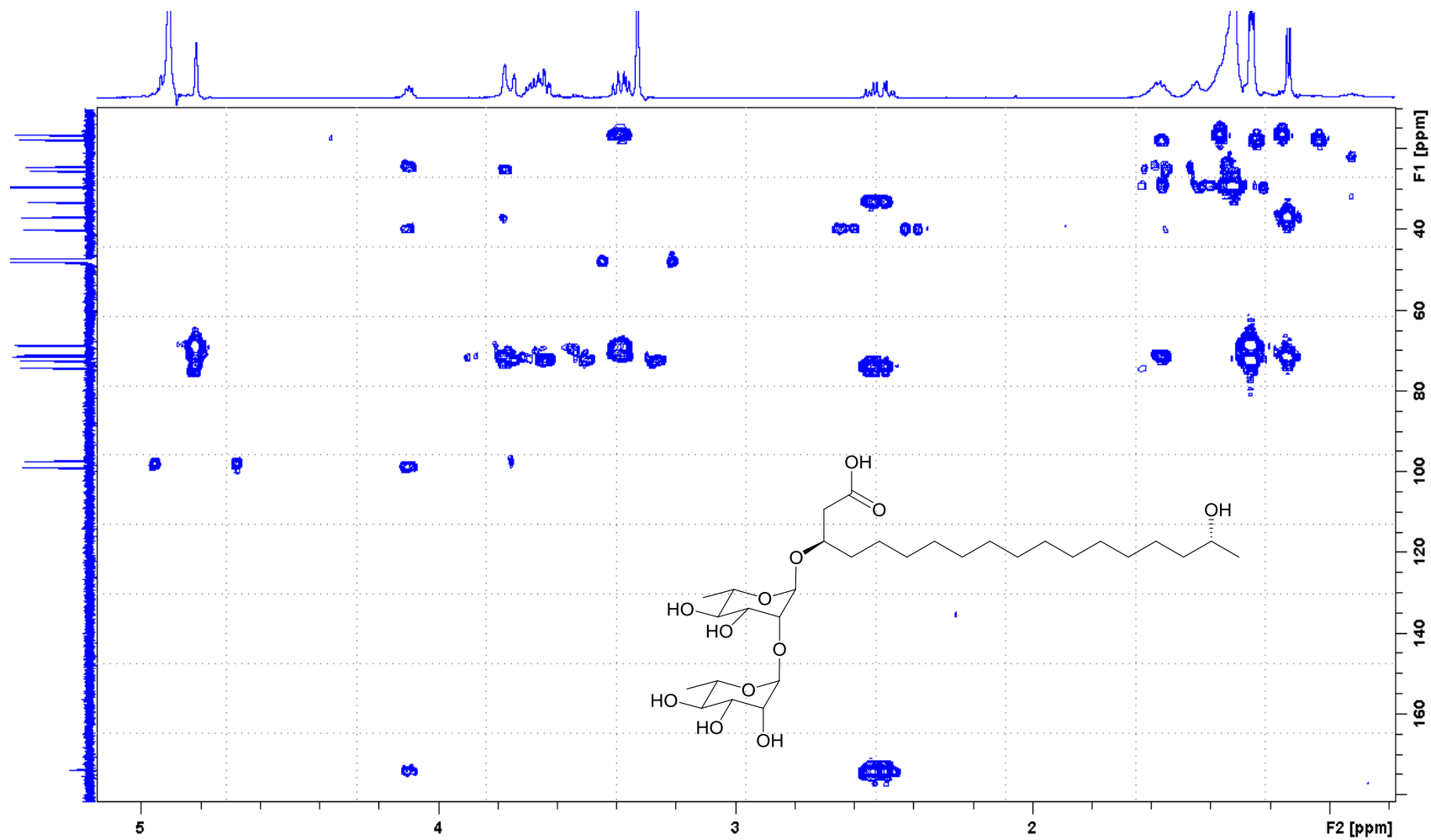


Figure S24. HMBC spectrum of dokdolipid C (3).

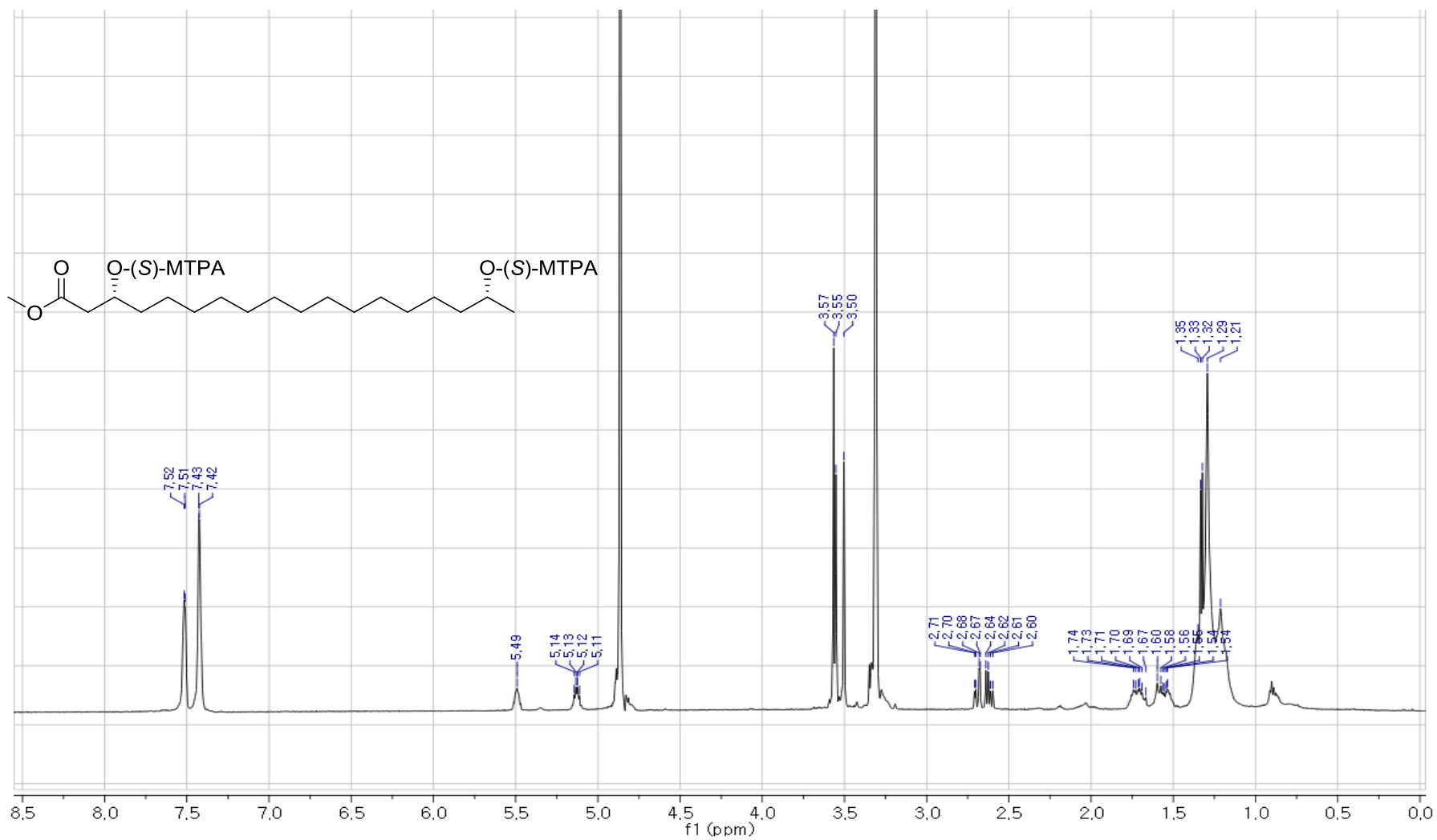


Figure S25. <sup>1</sup>H NMR spectrum of (*S*)-MTPA (**3a**) ester.

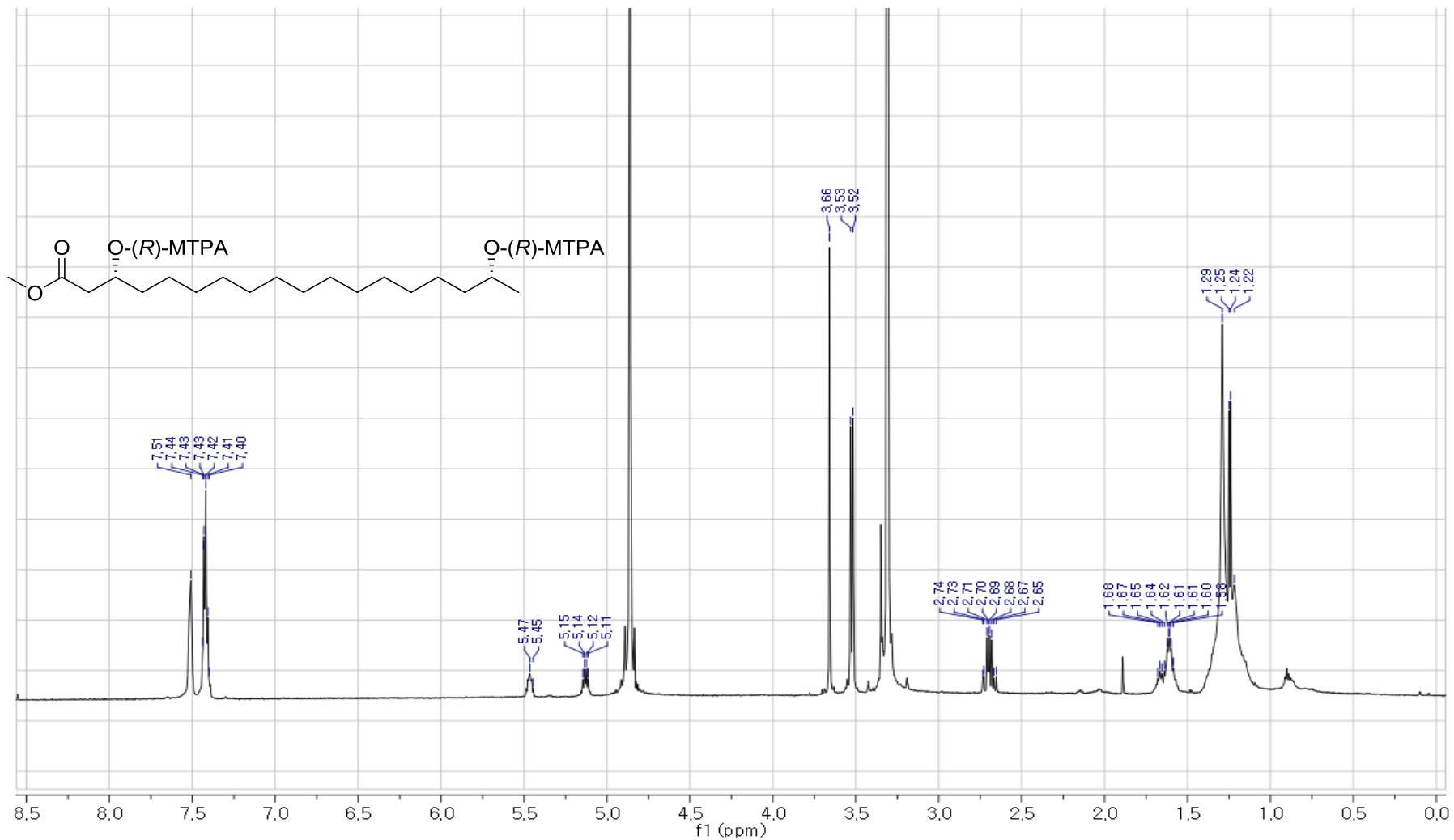


Figure S26.  $^1\text{H}$  NMR spectrum of (*R*)-MTPA (**3b**) ester.