

Supplementary Materials

Contents

Figure S1. ^1H -NMR (methanol- d_4 , 600 MHz) spectrum of 1	S2
Figure S2. ^{13}C -NMR (methanol- d_4 , 100 MHz) spectrum of 1	S2
Figure S3. ^1H -NMR (methanol- d_4 , 600 MHz) spectrum of 2	S3
Figure S4. ^{13}C -NMR (methanol- d_4 , 100 MHz) spectrum of 2	S3
Figure S5. ^1H -NMR (methanol- d_4 , 600 MHz) spectrum of 3	S4
Figure S6. ^{13}C -NMR (methanol- d_4 , 100 MHz) spectrum of 3	S4
Figure S7. ^1H -NMR (methanol- d_4 , 600 MHz) spectrum of pterosin M	S5
Figure S8. ^{13}C -NMR (methanol- d_4 , 100 MHz) spectrum of pterosin M	S5
Figure S9. ^1H -NMR (methanol- d_4 , 600 MHz) spectrum of echinolactone D	S6
Figure S10. ^{13}C -NMR (methanol- d_4 , 100 MHz) spectrum of echinolactone D	S6
Figure S11. ^1H -NMR (methanol- d_4 , 600 MHz) spectrum of radulactone	S7
Figure S12. ^{13}C -NMR (methanol- d_4 , 100 MHz) spectrum of radulactone	S7
Figure S13. ^1H -NMR (methanol- d_4 , 600 MHz) spectrum of echinolactone A	S8
Figure S14. ^{13}C -NMR (methanol- d_4 , 100 MHz) spectrum of echinolactone D	S8
Figure S15. ^1H -NMR (acetone- d_6 , 600 MHz) spectrum of 1a	S9
Figure S16. ^1H -NMR (acetone- d_6 , 600 MHz) spectrum of the (S)-MTPA ester of 1a	S9
Figure S17. ^1H -NMR (acetone- d_6 , 600 MHz) spectrum of the (R)-MTPA ester of 1a	S10
Figure S18. ^1H -NMR (methanol- d_6 , 600 MHz) spectrum of the reaction product of 3 and cysteine ..	S10
Figure S19. Structure of 1a (R = OH) and the R- and S-MTPA monoesters of 1a (R = R-MTPA and R = S-MTPA, respectively).	S11
Table S1. ^1H -NMR data for compound 1a and the R- and S-MTPA monoesters of 1a (acetone- d_6 , 30 °C, 600 MHz)	S11

Figure S1. ^1H -NMR (methanol- d_4 , 600 MHz) spectrum of **1**.

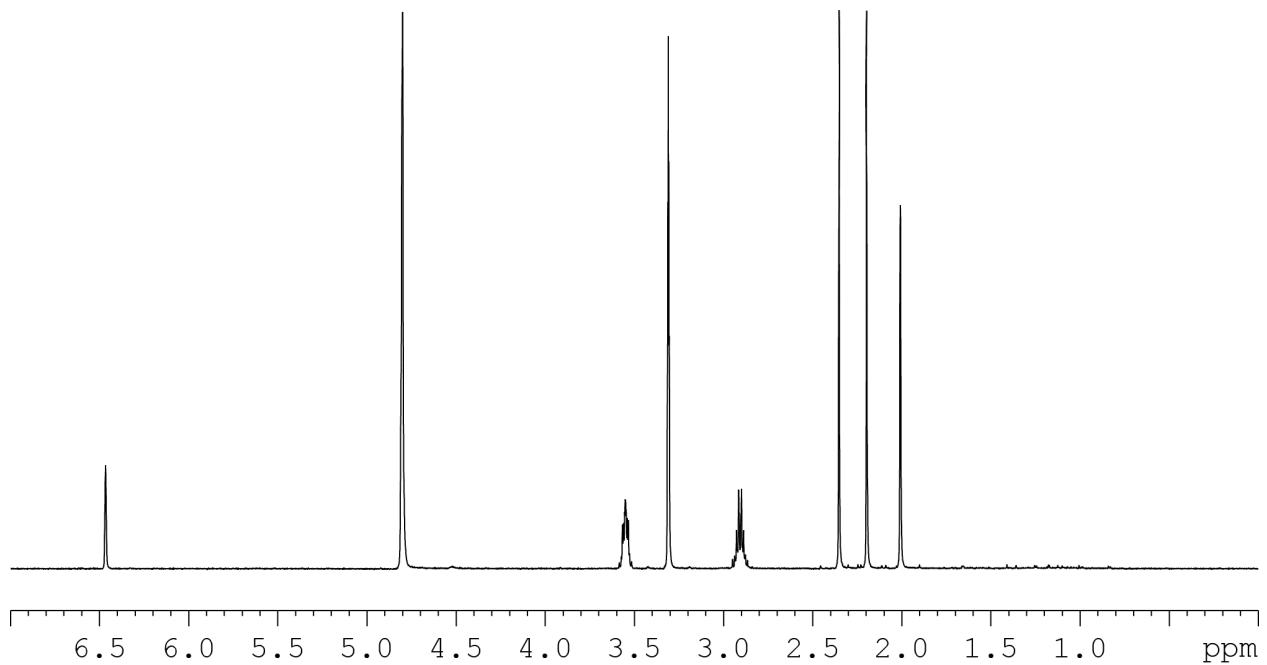


Figure S2. ^{13}C -NMR (methanol- d_4 , 100 MHz) spectrum of **1**.

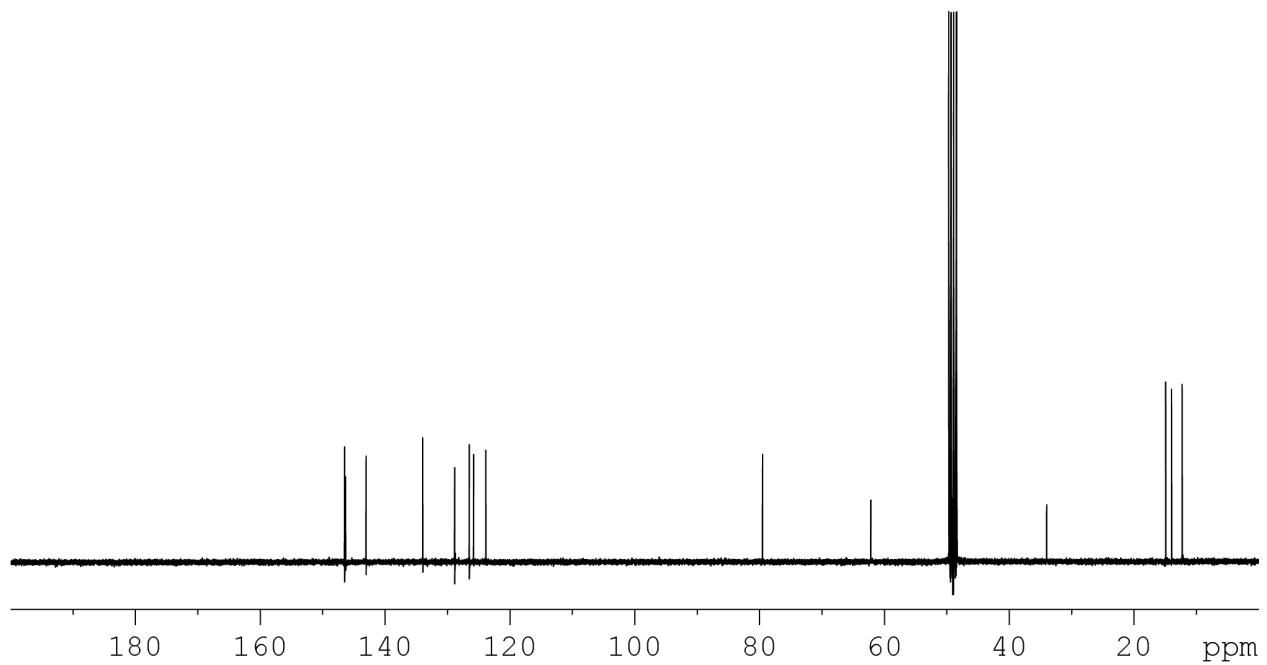


Figure S3. ^1H -NMR (methanol- d_4 , 600 MHz) spectrum of **2**.

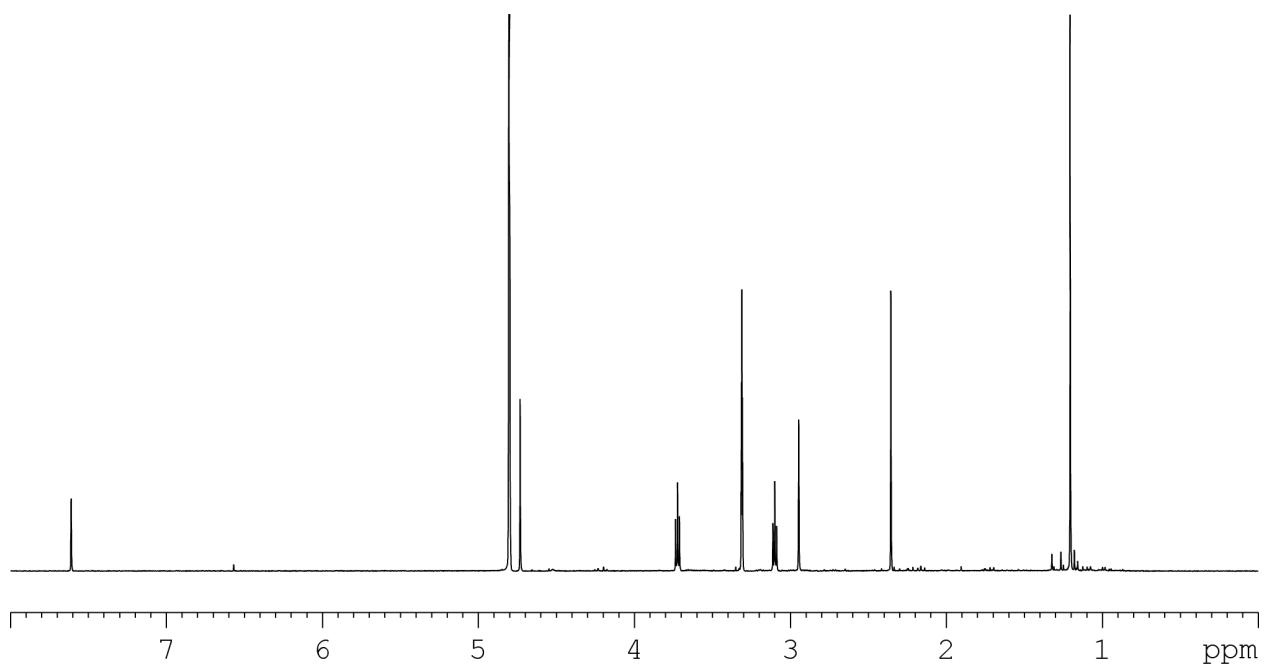


Figure S4. ^{13}C -NMR (methanol- d_4 , 100 MHz) spectrum of **2**.

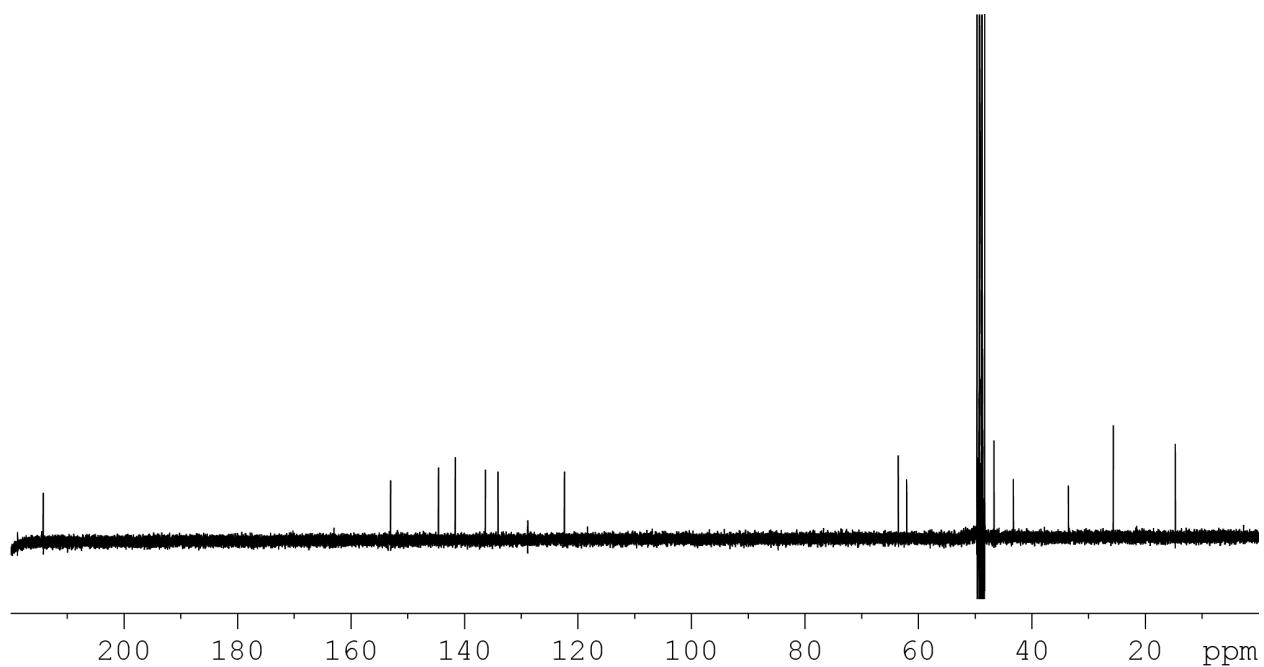


Figure S5. ^1H -NMR (methanol- d_4 , 600 MHz) spectrum of **3**.

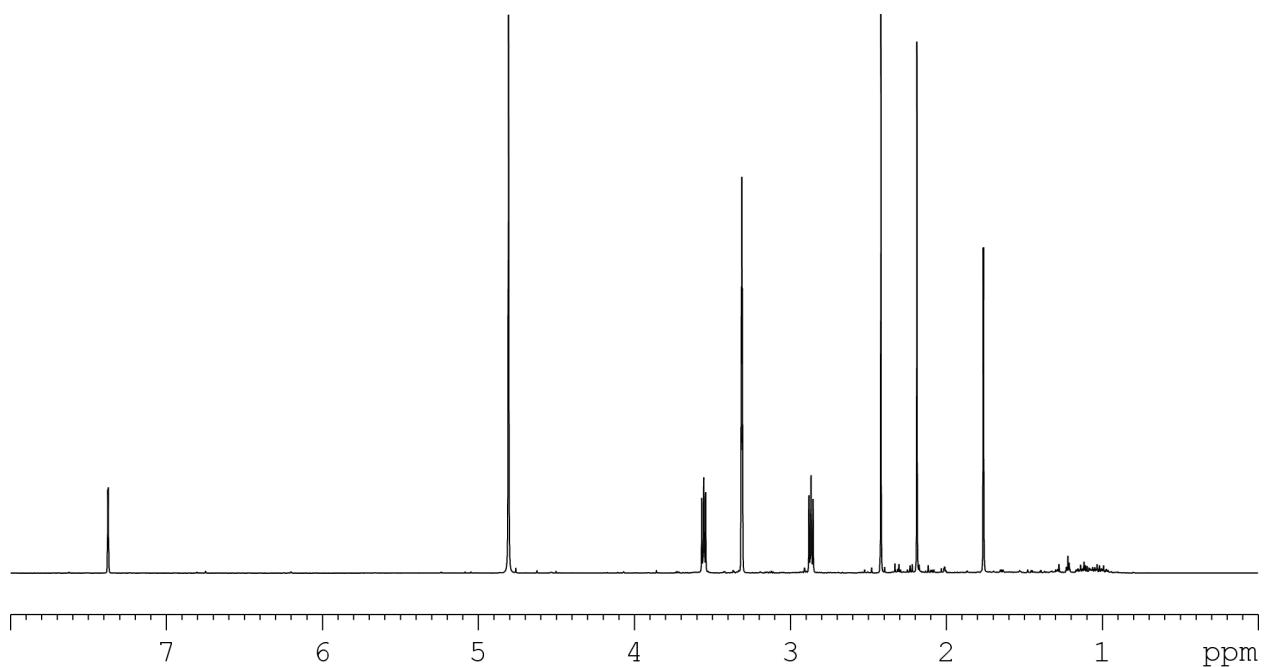


Figure S6. ^{13}C -NMR (methanol- d_4 , 100 MHz) spectrum of **3**.

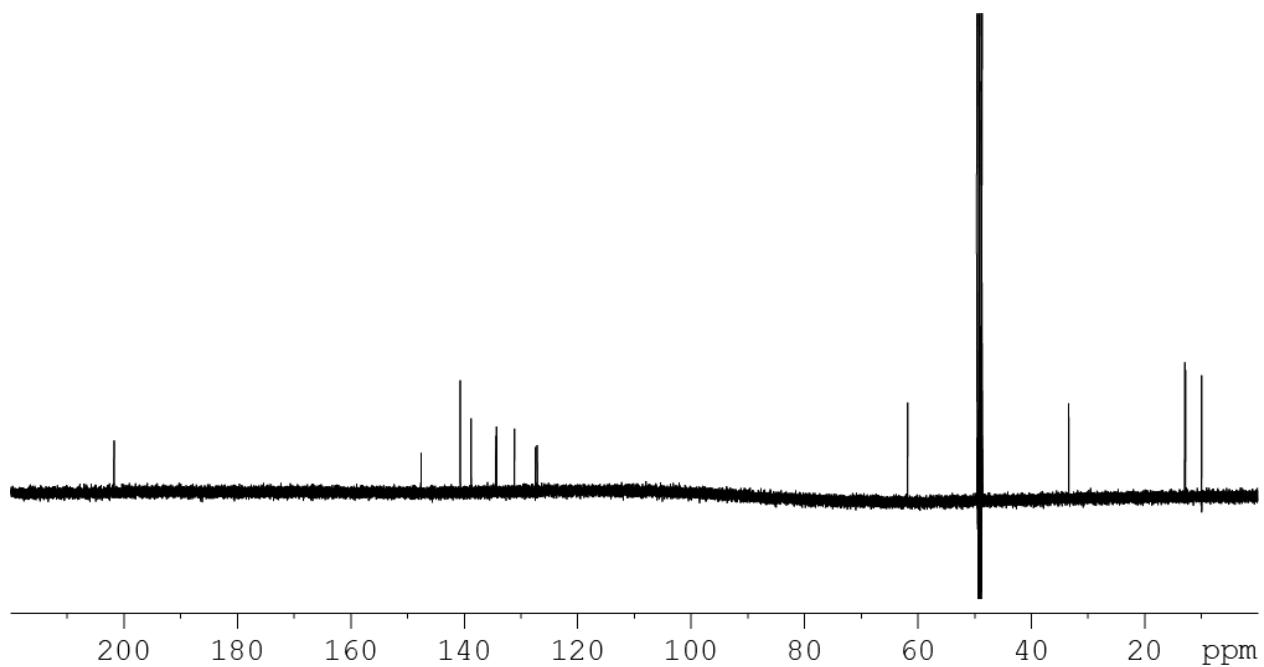


Figure S7. ^1H -NMR (methanol- d_4 , 600 MHz) spectrum of pterosin M.

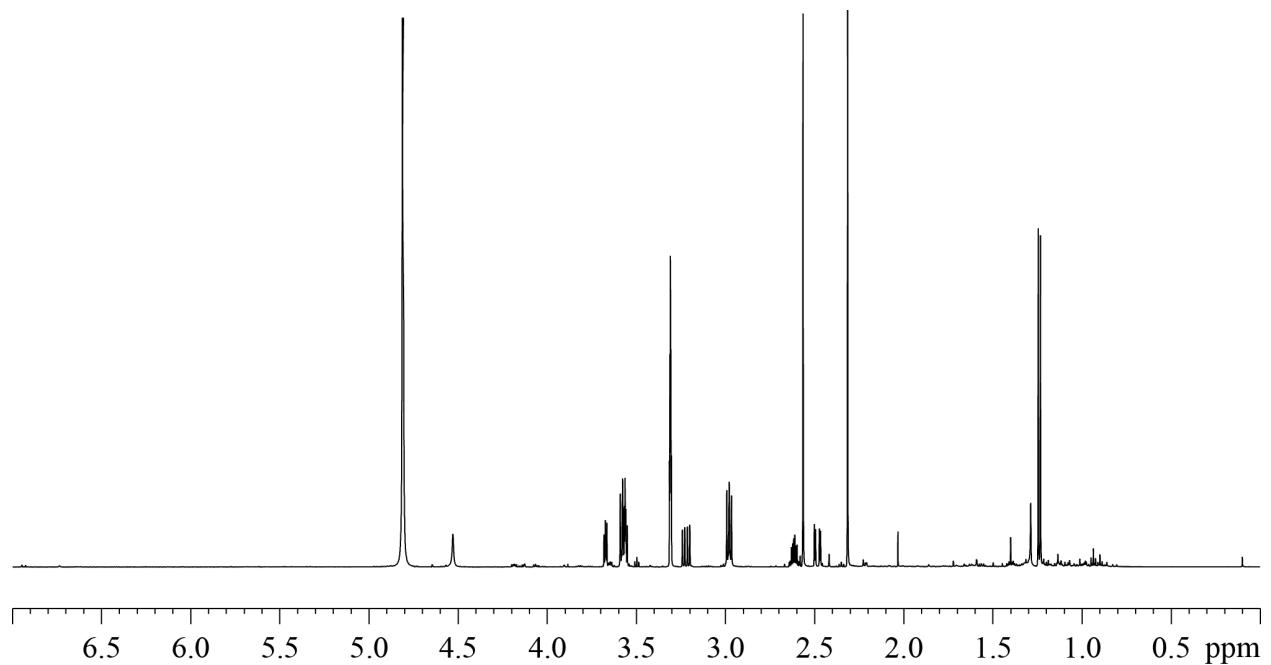


Figure S8. ^{13}C -NMR (methanol- d_4 , 100 MHz) spectrum of pterosin M.

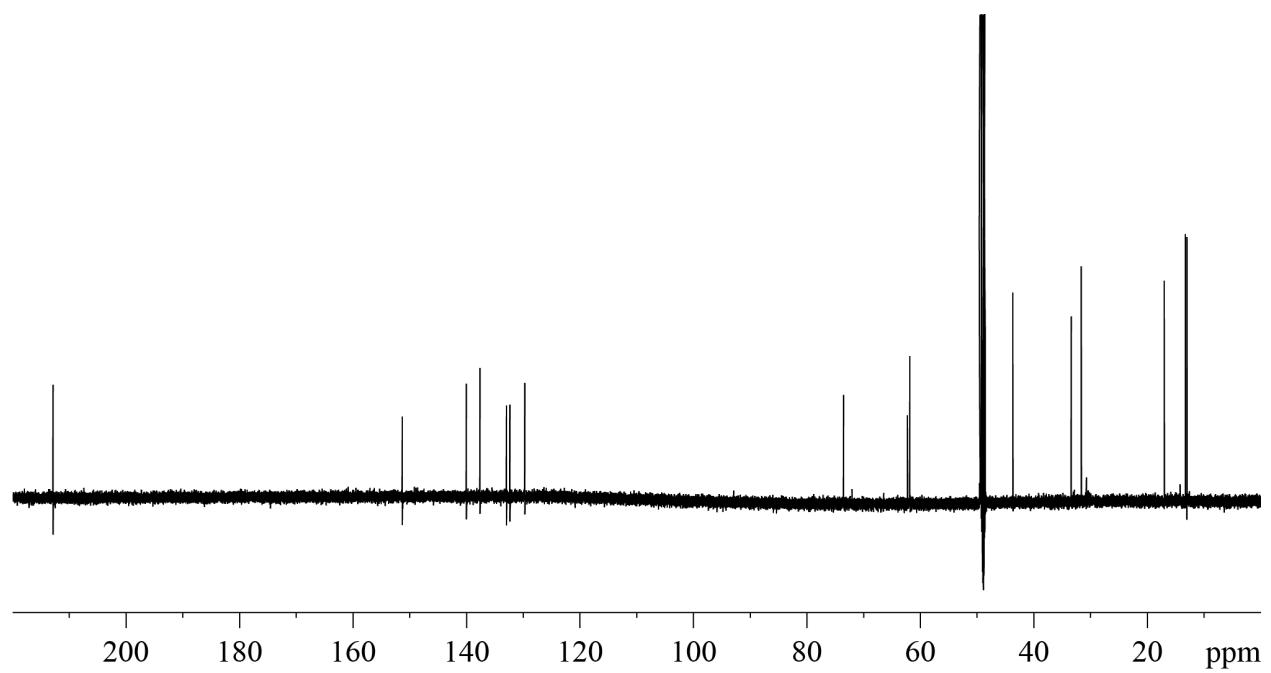


Figure S9. ^1H -NMR (methanol- d_4 , 600 MHz) spectrum of echinolactone D.

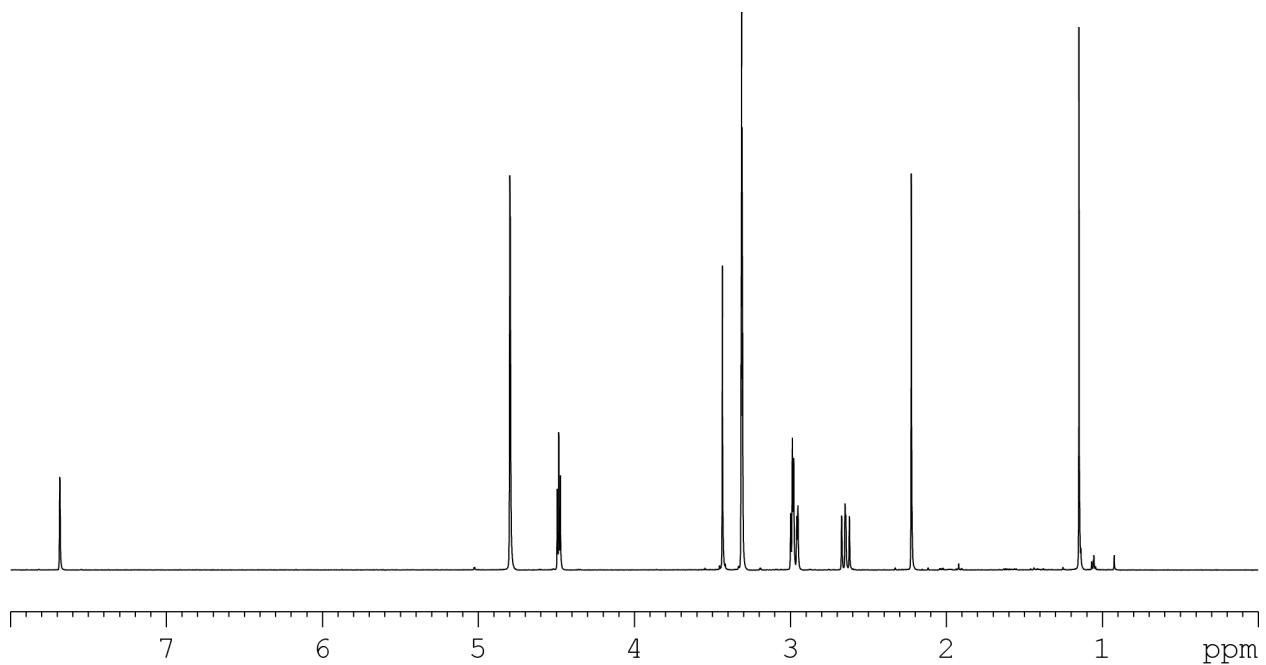


Figure S10. ^{13}C -NMR (methanol- d_4 , 100 MHz) spectrum of echinolactone D.

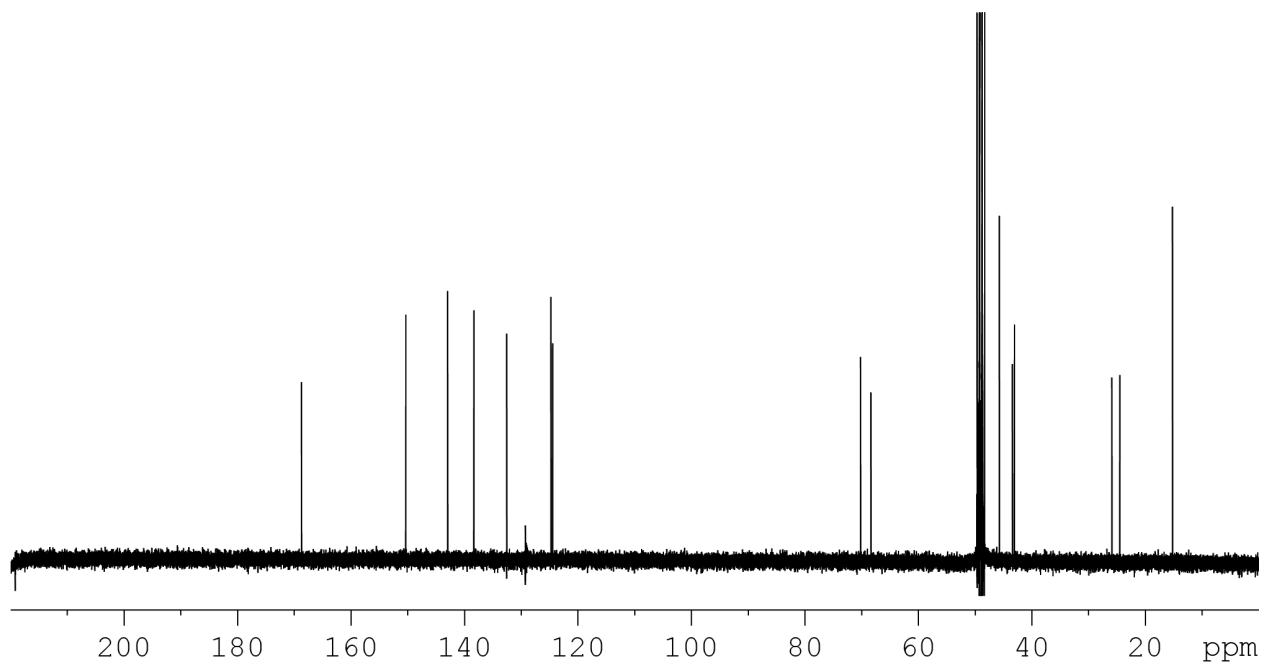


Figure S11. ^1H -NMR (methanol- d_4 , 600 MHz) spectrum of radulactone.

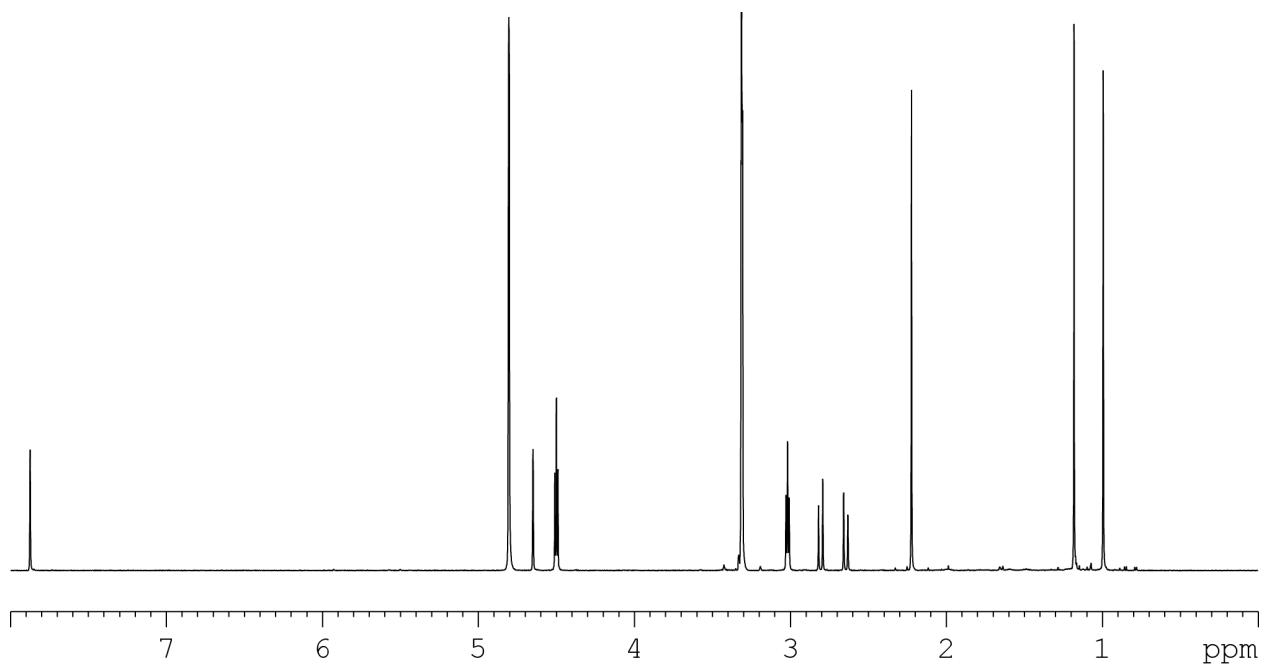


Figure S12. ^{13}C -NMR (methanol- d_4 , 100 MHz) spectrum of radulactone.

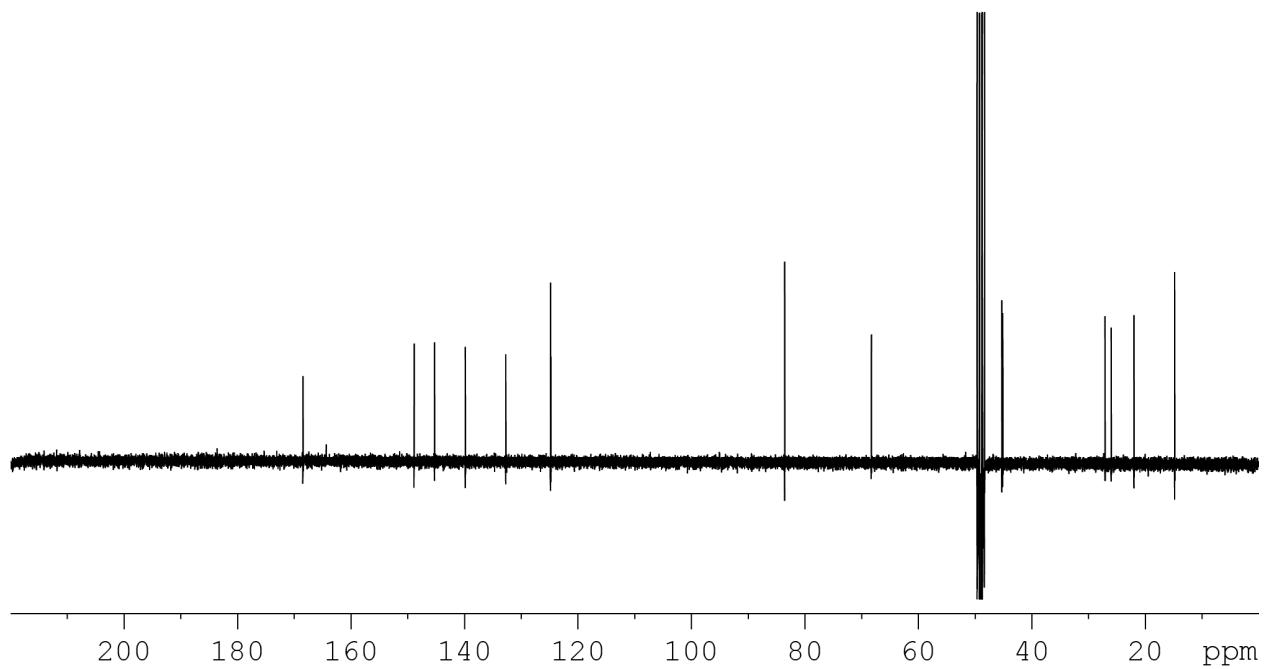


Figure S13. ^1H -NMR (methanol- d_4 , 600 MHz) spectrum of echinolactone A.

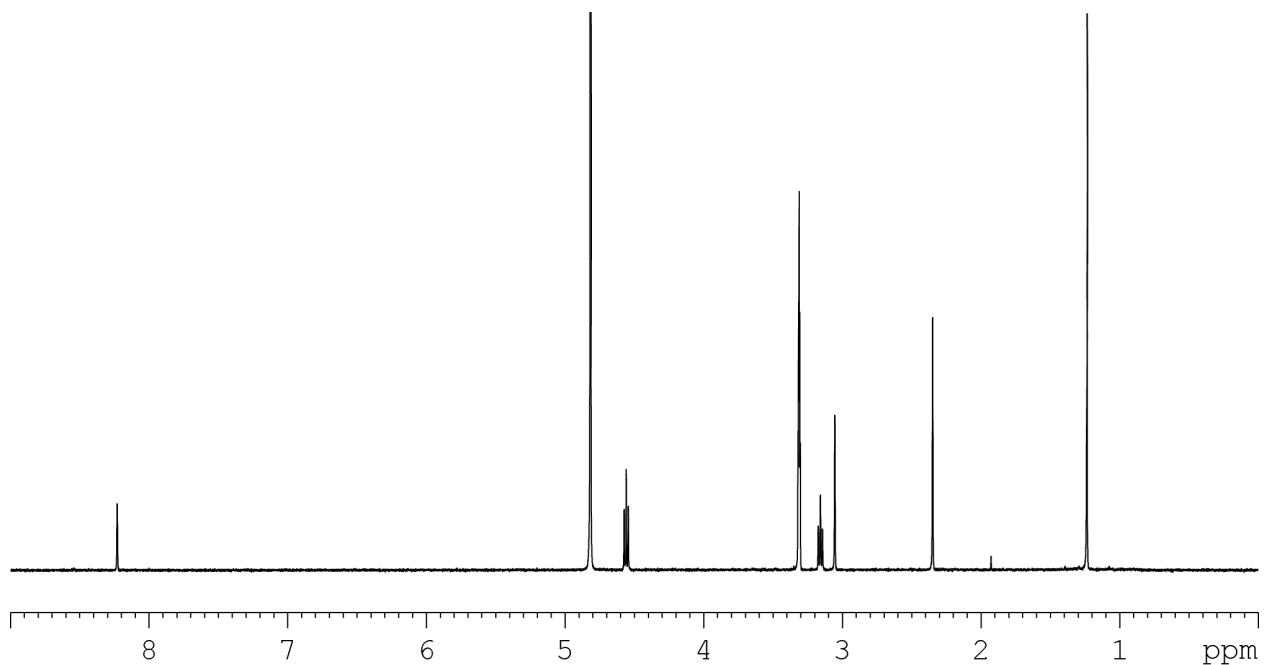


Figure S14. ^{13}C -NMR (methanol- d_4 , 100 MHz) spectrum of echinolactone D.

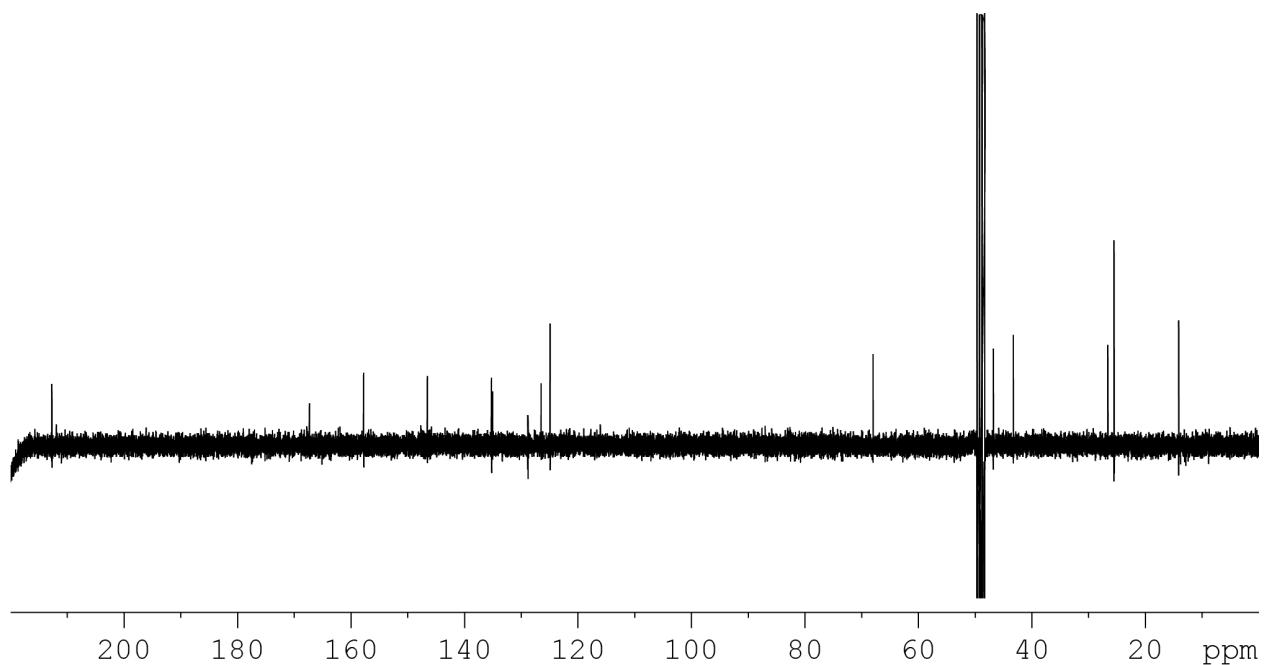


Figure S15. ^1H -NMR (acetone- d_6 , 600 MHz) spectrum of **1a**.

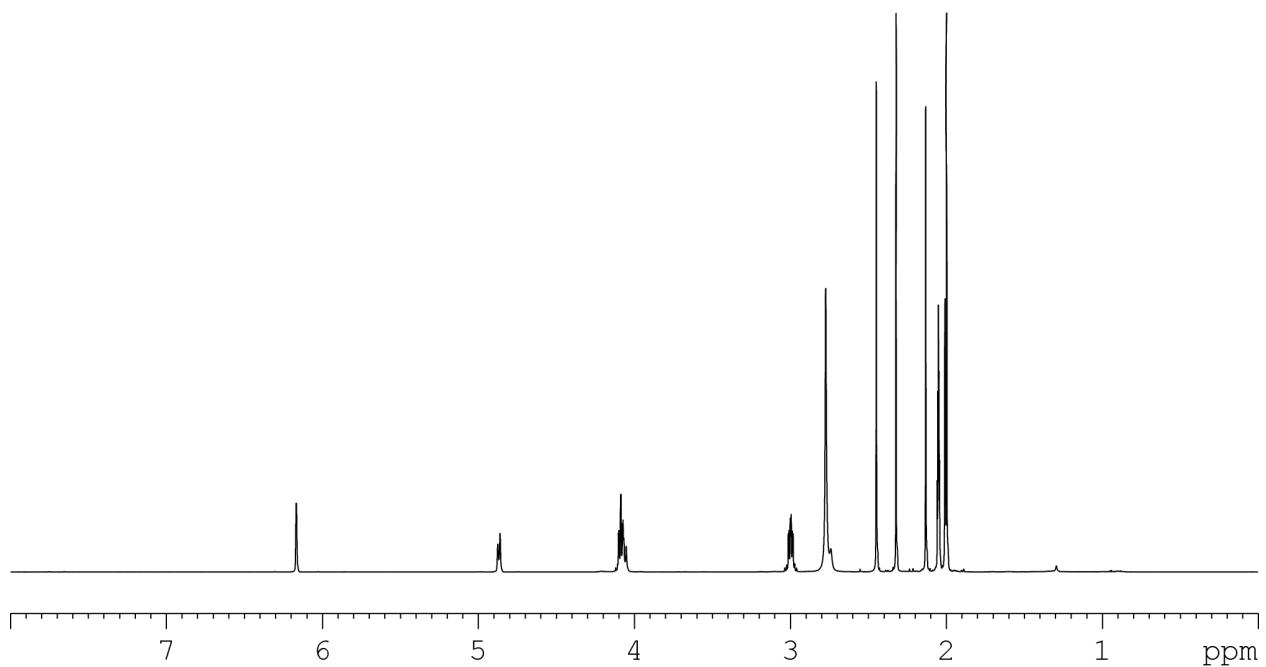


Figure S16. ^1H -NMR (acetone- d_6 , 600 MHz) spectrum of the (S)-MTPA ester of **1a**.

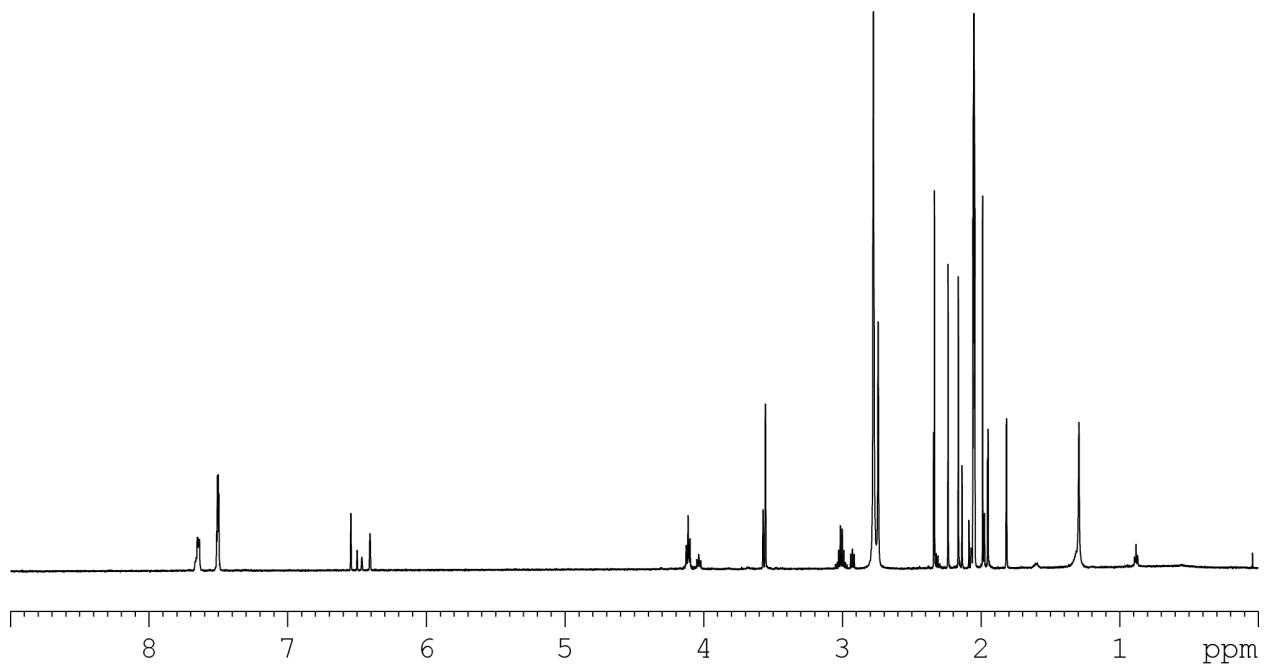


Figure S17. ^1H -NMR (acetone- d_6 , 600 MHz) spectrum of the (R)-MTPA ester of **1a**.

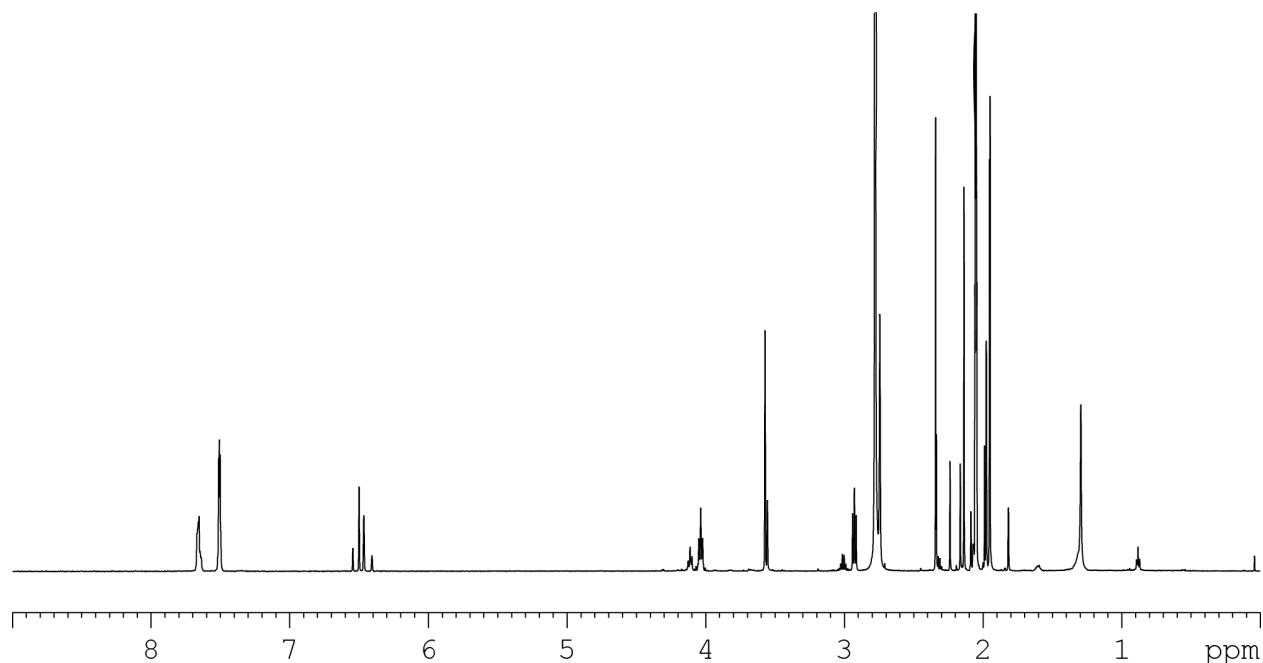


Figure S18. ^1H -NMR (methanol- d_6 , 600 MHz) spectrum of the reaction product of **3** and cysteine.

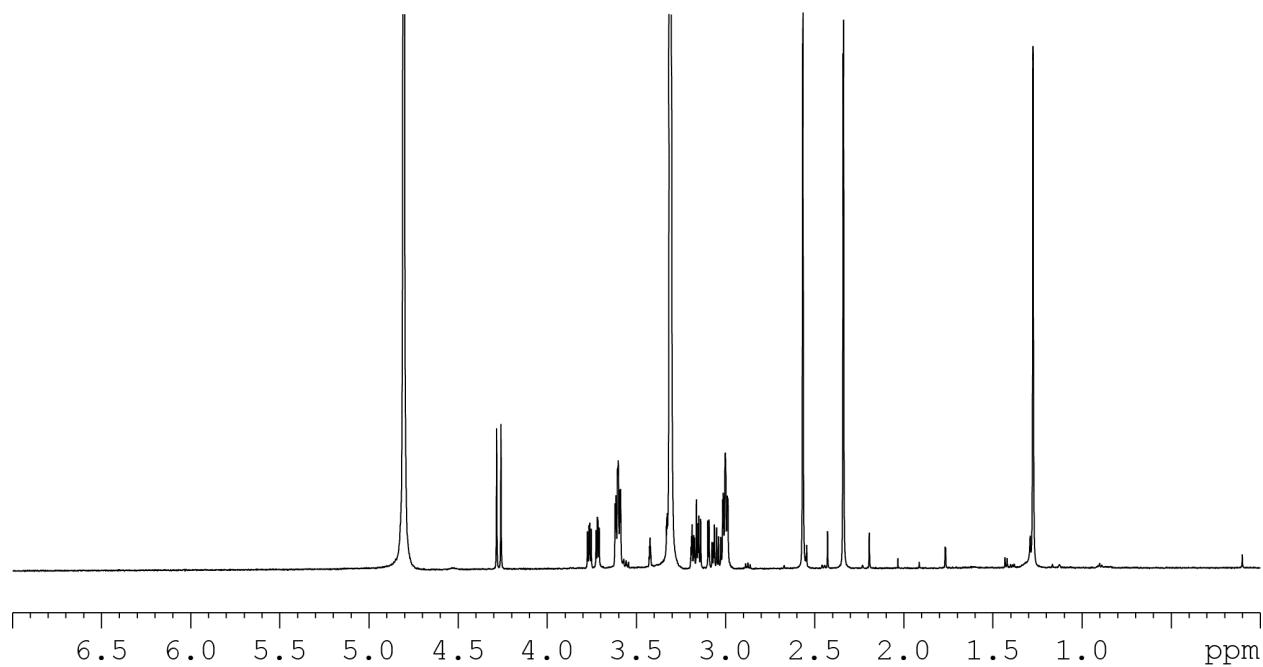


Figure S19. Structure of **1a** ($R = OH$) and the R- and S-MTPA monoesters of **1a** ($R = R\text{-MTPA}$ and $R = S\text{-MTPA}$, respectively).

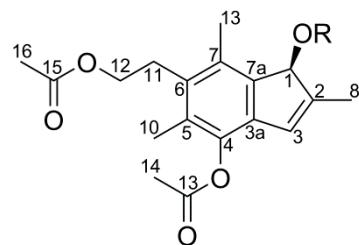


Table S1. 1H -NMR data for compound **1a** and the R- and S-MTPA monoesters of **1a** (acetone- d_6 , 30 °C, 600 MHz).

pos.	1a	R-MTPA Ester of 1a	S-MTPA Ester of 1a
	δ_H (J in Hz)	δ_H (J in Hz)	δ_H (J in Hz)
1	4.87, m	6.47, s	6.54, s
2			
3	6.17, bs	6.5, s	6.41, s
4			
4a			
5			
6			
7			
7a			
8	2.01, bs	1.98, bs	1.82, s
9			
10	2.13, s	2.14, s	2.16, s
11	3.00, m	2.93, m	3.01, m
12	4.09, m	4.00, m	4.11, m
13	2.45, s	1.95, s	2.23, s
14	2.32, s	2.34, s	2.34, s
15			
16	2.00, s	1.95, s	1.99, s