SUPPORTING INFORMATION

Expanding antibiotic chemical space around the nidulin pharmacophore

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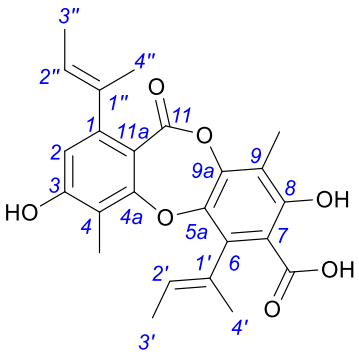
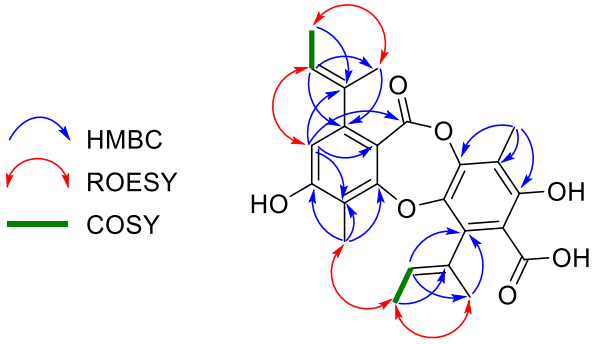


Table S1. ^{1}H (600 MHz) and ^{13}C (150 MHz) NMR data for 7-carboxyfolipastatin (**1**) in DMSO-d_6

Pos.	δ_H, mult (*J* in Hz)	δ_C	HMBC	COSY	ROESY
1		148.1			
2	6.55, s	111.4	3, 4, 11, 11a, 1″		2″, 4″
3		159.9			
4		113.2			
4a		162.0			
5a		139.5			
6		136.8			
7		114.6			
8		160.3			
9		114.0			
9a		143.8			
11		163.9			
11a		110.5			
1′		133.7			
2′	4.93, qq (6.7, 1.5)	119.6	6, 3′, 4′	3′	
3′	1.65, dq (6.7, 1.0)	13.9	1′, 2′	2′	4′, 4-Me
4′	1.81, dq (1.5, 1.0)	18.8	6, 1′, 2′		3′, 4-Me
1″		135.9			
2″	5.34, qq (6.7, 1.6)	123.5	1, 3″, 4″	3″	2
3″	1.64, dq (6.7, 1.0)	14.1	1″, 2″	2″	4″
4″	1.78, dq (1.6, 1.0)	17.5	1, 1″, 2″		2, 3″
4-Me	2.06, s	8.5	3, 4, 4a		3′, 4′
9-Me	2.03, s	9.0	8, 9, 9a		
3-OH	10.53, s				
8-OH	[a]				
7-CO_2H	17.75, br s	169.7			

a Not observed



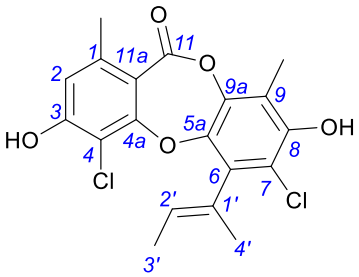
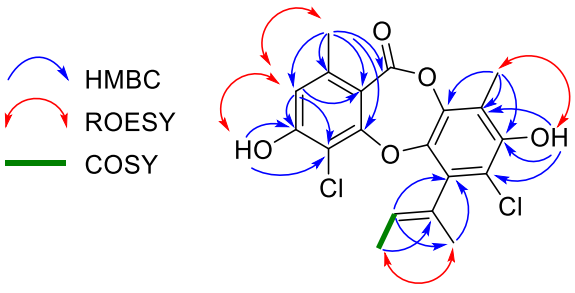


Table S2. ^{1}H (600 MHz) and ^{13}C (150 MHz) NMR data for 4,7-dichlorounguinol (**2**) in DMSO-d_6

Pos.	δ_H, mult (*J* in Hz)	δ_C	HMBC	COSY	ROESY
1		142.7			
2	6.74, q (0.7)	115.6	3, 4, 11, 11a, 1-Me		1-Me, 3-OH
3		157.8			
4		108.7			
4a		158.8			
5a		141.46[a]			
6		134.2			
7		116.6			
8		149.0			
9		117.1			
9a		141.48[a]			
11		161.5			
11a		112.2			
1′		129.4			
2′	5.32, qq (6.8, 1.5)	126.8	6, 1′, 3′, 4′	3′	
3′	1.74, dq (6.8, 1.1)	13.9	1′, 2′	2′	4
4′	1.86, dq (1.5, 1.1)	17.4	6, 1′, 2′		4
1-Me	2.34, d (0.7)	20.8	1, 2, 11, 4a, 11a		2
9-Me	2.18, s	10.3	8, 9, 9a		8-OH
3-OH	11.38, s		2, 3, 4		2
8-OH	9.43, s		7, 8, 9		9-Me

a Assignments interchangeable



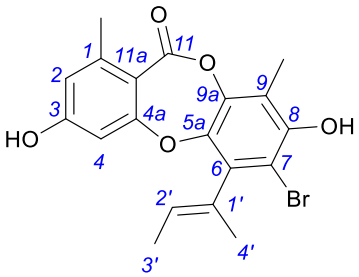
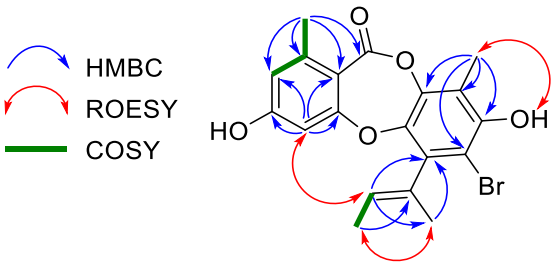


Table S3. ^{1}H (600 MHz) and ^{13}C (150 MHz) NMR data for 7-bromounguinol (**3**) in DMSO-d_6

Pos.	δ_H, mult (*J* in Hz)	δ_C	HMBC	COSY	ROESY
1		144.9			
2	6.56, dd (2.4, 0.8)	115.8	3, 4, 11a, 1-Me	4, 1-Me	1-Me
3		161.9[a]			
4	6.31, d (2.4)	104.6	2, 3, 4a, 11, 11a	2	2′, 3′
4a		161.8[a]			
5a		141.0			
6		135.9			
7		108.0			
8		149.5			
9		116.9			
9a		142.2			
11		162.8			
11a		111.2			
1′		130.9			
2′	5.25, qq (6.8, 1.4)	125.8	6, 3′, 4′	3′	4
3′	1.84, dq (6.8, 1.0)	13.4	1′, 2′	2′	4, 4′
4′	1.86, dq (1.4, 1.0)	17.1	6, 1′, 2′		3′
1-Me	2.33, s	20.7	1, 2, 11, 11a	2	2
9-Me	2.17, s	10.6	7, 8, 9, 9a		8-OH
3-OH	10.64, s				
8-OH	9.22, s				9-Me

a Assignments interchangeable



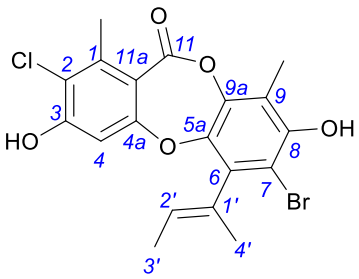
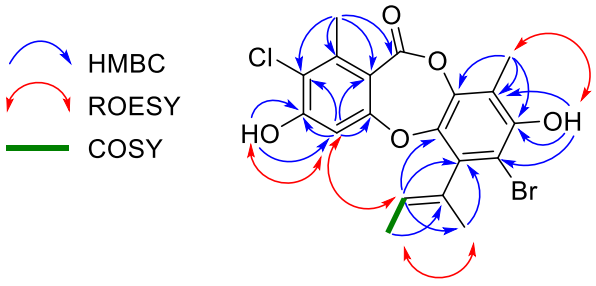


Table S4. ^{1}H (600 MHz) and ^{13}C (150 MHz) NMR data for 2-chloro-7-bromounguinol (**4**) in DMSO-d_6

Pos.	δ_H, mult (*J* in Hz)	δ_C	HMBC	COSY	ROESY
1		141.3			
2		113.0			
3		157.6			
4	6.58, s	105.1	2, 3, 4a, 11a		3′, 4′, 3-OH
4a		160.5			
5a		141.0			
6		135.9			
7		108.2			
8		149.7			
9		117.0			
9a		142.1			
11		161.7			
11a		119.2			
1′		130.7			
2′	5.25, qq (6.8, 1.1)	126.1	5a, 3′, 4′, 6	3′	
3′	1.85, dq (6.8, 1.1)	13.5	1′, 2′	2′	4
4′	1.86, s	17.1	1′, 2′, 3′, 6,		4
1-Me	2.38, s	18.2	1, 2, 11, 11a		
9-Me	2.17, s	10.5	8, 9, 9a		8-OH
3-OH	11.52, s		3, 4		4
8-OH	9.28, s		7, 8, 9		9-Me



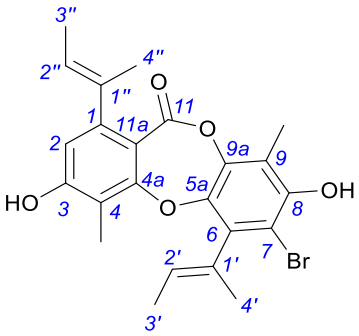
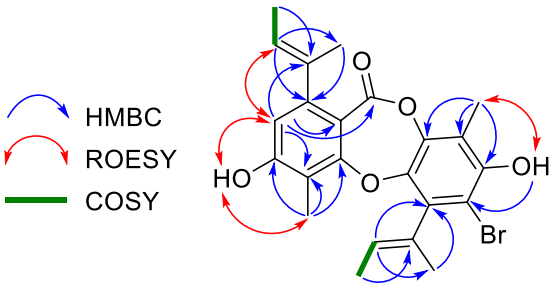


Table S5. ^{1}H (600 MHz) and ^{13}C (150 MHz) NMR data for 7-bromofolipastatin (**5**) in DMSO-d_6

Pos.	δ_H, mult (*J* in Hz)	δ_C	HMBC	COSY	ROESY
1		148.5			
2	6.56, s	111.9	3, 4, 11, 11a, 1″		2″, 4″ 3-OH
3		159.9[a]			
4		113.2			
4a		161.2[a]			
5a		142.5			
6		135.8			
7		108.5			
8		149.6			
9		116.8			
9a		142.3			
11		162.9			
11a		109.9			
1′		131.8			
2′	5.33, qq (6.8, 1.5)	126.6	6, 3′, 4′	3′	
3′	1.76, dq (6.8, 1.1)	13.7	1′, 2′	2′	4′
4′	1.83, dq (1.5, 1.1)	17.3	6, 1′, 2′		3′
1″		135.6			
2″	5.35, qq (6.8, 1.4)	123.9	1, 3″, 4″	3″	2
3″	1.65, dq (6.8, 1.1)	14.0	1″, 2″	2″	4″
4″	1.78, dq (1.4, 1.1)	17.4	1, 1″, 2″		2, 3″
4-Me	2.05, s	8.5	3, 4, 4a		3-OH
9-Me	2.18, s	10.4	8, 9, 9a		8-OH
3-OH	10.53, s		2, 3, 4		4-Me
8-OH	9.28, s		7, 8, 9		9-Me

a Assignments interchangeable



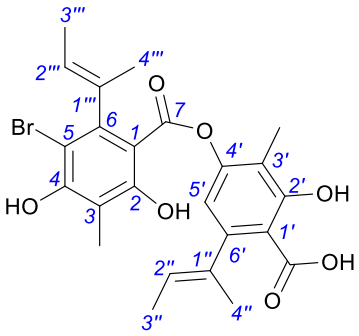
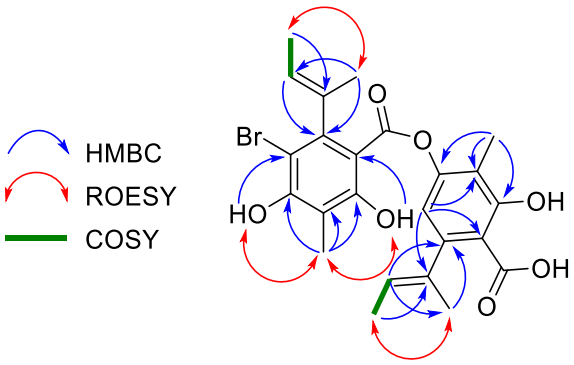


Table S6. ^{1}H (600 MHz) and ^{13}C (150 MHz) NMR data for 5-bromoagonodepside B (**6**) in DMSO-d_6

Pos.	δ_H, mult (*J* in Hz)	δ_C	HMBC	COSY	ROESY
1		113.1			
2		154.5[a]			
3		112.7			
4		154.2[a]			
5		103.2			
6		142.5			
7		166.0			
1′		112.0			
2′		159.0			
3′		116.9			
4′		151.6			
5′	6.30, s	113.7	1′, 3′, 4′, 1″, 1′-CO_2H		2″, 3″, 4″
6′		145.5			
1″		137.0			
2″	5.30, qq (6.5, 1.4)	121.5	6′, 3″, 4″	3″	3″
3″	1.65, dq (6.5, 1.0)	13.7	6′, 1″, 2″, 4″	2″	4″
4″	1.84, dq (1.4, 1.0)	18.2	6′, 1″, 2″		5′, 3″
1‴		136.0			
2‴	5.31, qq (6.5, 1.4)	123.9	6, 3‴, 4‴	3‴	3‴
3‴	1.66, dq (6.5, 1.0)	13.4	6, 1‴, 2‴, 4‴	2″	4‴
4‴	1.87, dq (1.4, 1.0)	17.2	6, 1‴, 2‴		3‴
3-Me	2.12, s	10.0	2, 3, 4, 6		2-OH, 4-OH
3′-Me	1.99, s	9.0	2′, 3′, 4′		
2-OH	9.69, s		1, 2		3-Me
4-OH	9.42, s		3, 4, 5		3-Me
2′-OH	11.41, br s				
1′-CO_2H	13.62, br s	171.7			

a Assignments interchangeable



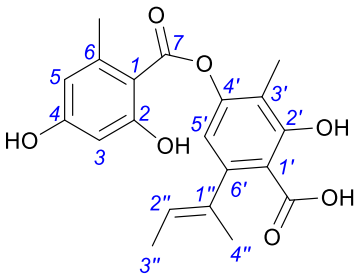
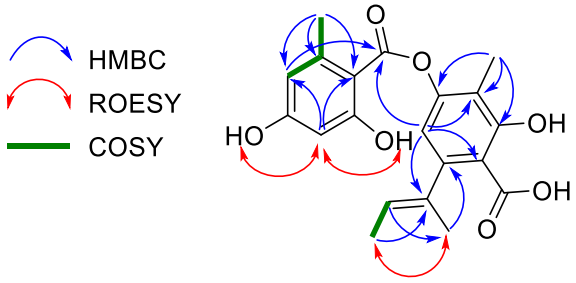


Table S7. ^{1}H (600 MHz) and ^{13}C (150 MHz) NMR data for unguidepside A (**7**) in DMSO-d_6

Pos.	δ_H, mult (*J* in Hz)	δ_C	HMBC	COSY	ROESY
1		108.3			
2		160.0			
3	6.22, d (2.4)	100.4	1, 2, 5		2-OH, 4-OH
4		161.1			
5	6.21, d (2.4)	109.8	3, 4, 7, 6-Me	6-Me	6-Me
6		140.3			
7		166.9			
1′		112.1			
2′		158.8			
3′		116.8			
4′		151.6			
5′	6.45, s	114.1	1′, 3′, 4′, 1″		4″
6′		145.4			
1″		136.9			
2″	5.30, qq (6.7, 1.4)	121.5	6′, 3″, 4″	3″	
3″	1.65, dq (6.7, 1.1)	13.7	1″, 2″	2″	4″
4″	1.85, dq (1.4, 1.1)	18.2	6′, 1″, 2″		5′, 3″
6-Me	2.34, s	21.3	1, 5, 6	5	5
3′-Me	2.01, s	9.2	2′, 3′, 4′		
2-OH	10.34, s		1, 2, 3		3
4-OH	9.99, s		3, 4, 5		3
2′-OH	11.39, br s				
1′-CO_2H	13.63, br s	171.8			



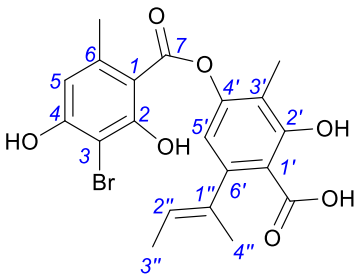
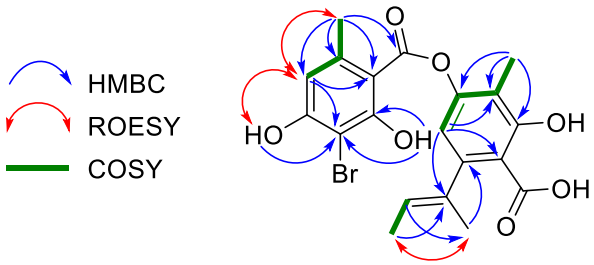


Table S8. ^{1}H (600 MHz) and ^{13}C (150 MHz) NMR data for 3-bromounguidepside A (**8**) in DMSO-d_6

Pos.	δ_H, mult (*J* in Hz)	δ_C	HMBC	COSY	ROESY
1		106.9			
2		158.9			
3		96.1			
4		159.1			
5	6.50, s	110.9	1, 3, 4, 7, 6-Me	6-Me	6-Me, 4-OH
6		140.3			
7		167.8			
1′		112.8			
2′		158.5			
3′		116.6			
4′		151.0			
5′	6.57, s	114.0	1′, 3′, 4′, 1″	3′-Me	4″
6′		145.4			
1″		136.7			
2″	5.32, qq (6.8, 1.4)	121.7	6′, 3″, 4″	3″	
3″	1.65, dq (6.8, 1.0)	13.7	1″, 2″	2″	4″
4″	1.85, dq (1.4, 1.0)	18.1	6′, 1″, 2″		5′, 3″
6-Me	2.40, s	22.6	1, 5, 6, 7	5	5
3′-Me	1.99, s	9.3	2′, 3′, 4′	5′	
2-OH	11.16, s		1, 2, 3		
4-OH	11.13, s		3		5
2′-OH	11.31, br s				
1′-CO_2H	13.64, br s	171.6			



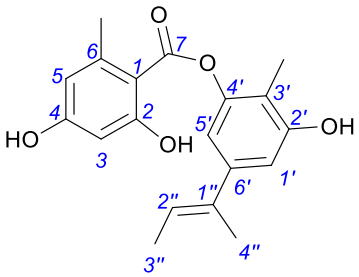
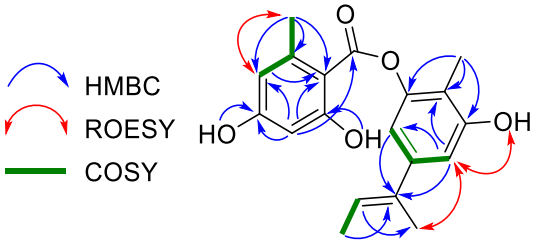


Table S9. ^{1}H (500 MHz) and ^{13}C (125 MHz) NMR data for decarboxyunguidepside A (**9**) in DMSO-d_6

Pos.	δ_H, mult (*J* in Hz)	δ_C	HMBC	COSY	ROESY
1		107.9			
2		160.5			
3	6.21, d (2.4)	100.4	1, 4, 5, 7		
4		161.1			
5	6.22, d (2.4)	110.0	1, 3, 6-Me	6-Me	6-Me
6		140.5			
7		167.7			
1′	6.76, d (1.7)	109.2	2′, 3′, 5′, 1″	5′	4″, 2′-OH
2′		156.1			
3′		115.2			
4′		149.8			
5′	6.60, d (1.7)	109.6	1′, 3′, 4′, 1″	1′	2″, 4″
6′		141.5			
1″		134.1			
2″	5.81, qq (6.8, 1.2)	121.5	6′, 4″	3″	5′
3″	1.73, dq (6.8, 1.0)	14.0	1″, 2″	2″	
4″	1.90, dq (1.2, 1.0)	15.0	6′, 1″, 2″		1′, 5′
6-Me	2.38, s	21.7	1, 5, 6	5	5
3′-Me	1.96, s	9.1	2′, 3′, 4′		
2-OH	10.48, s		1, 2, 3		
4-OH	10.01, s				
2′-OH	9.56, s		2′, 3′		1′



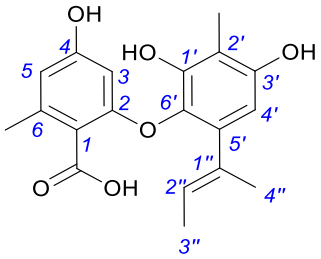
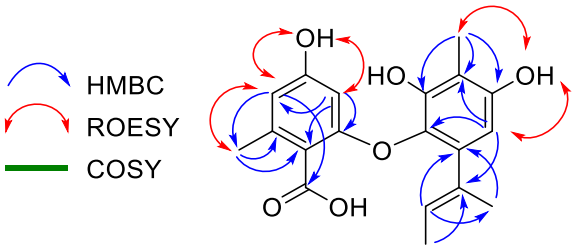


Table S10. ^{1}H (500 MHz) and ^{13}C (125 MHz) NMR data for unguinolic acid (**10**) in DMSO-d_6

Pos.	δ_H, mult (*J* in Hz)	δ_C	HMBC	COSY	ROESY
1		115.3			
2		157.6			
3	5.76, d (2.3)	99.6	1, 2, 4, 5	5	4″, 4-OH
4		159.4			
5	6.22, d (2.3)	111.0	1, 3, 4, 1-CO_2H, 6-Me	3, 6-Me	6-Me, 4-OH
6		138.3			
1′		148.6			
2′		110.8			
3′		153.3			
4′	6.20, s	106.0	2′, 3′, 6′, 1″		4″, 3′-OH
5′		136.4			
6′		132.1			
1″		133.7			
2″	5.48, qq (6.8, 1.3)	124.4	5′, 3″, 4″	3″	
3″	1.56, dq (6.8, 1.0)	14.3	1″, 2″	2″	4″
4″	1.75, dq (1.3, 1.0)	17.0	5′, 1″, 2″		4′, 3″
6-Me	2.22, s	20.2	1, 5, 6	5	5
2′-Me	1.95, s	9.3	1′, 2′, 3′		3′-OH
4-OH	9.59, s		3, 4, 5		3, 5
1′-OH	8.50, br s				
3′-OH	9.12, s		2′, 3′, 4′		4′, 2′-Me
1-CO_2H	12.76, br s	169.5			



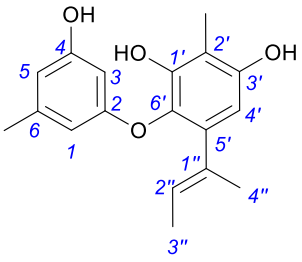
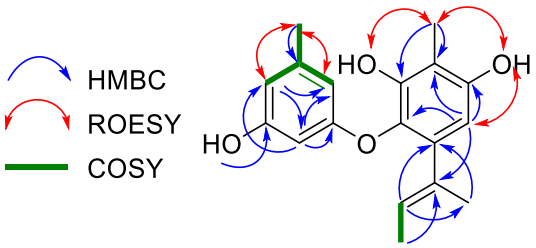


Table S11. ^{1}H (500 MHz) and ^{13}C (125 MHz) NMR data for decarboxyunguinolic acid (**11**) in DMSO-d_6

Pos.	δ_H, mult (*J* in Hz)	δ_C	HMBC	COSY	ROESY
1	6.00, br m	106.9	2, 3, 5, 6-Me	6-Me	6-Me
2		159.5			
3	5.85, dd (2.2)	99.4	1, 2, 4, 5		
4		157.8			
5	6.11, br m	108.9	1, 3, 4, 6-Me	6-Me	6-Me
6		138.7			
1′		148.3			
2′		110.5			
3′		152.3			
4′	6.15, s	105.7	2′, 3′, 6′, 1″		2″, 4″, 3′-OH
5′		135.8			
6′		131.7			
1″		133.5			
2″	5.36, qq (6.8, 1.2)	123.2	5′, 3″, 4″	3″	4′
3″	1.52, dq (6.8, 1.0)	13.7	1″, 2″	2″	
4″	1.72, dq (1.2, 1.0)	16.6	5′, 1″, 2″		4′
6-Me	2.10, s	21.2	1, 5, 6	1, 5	1, 5
2′-Me	1.96, s	9.0	1′, 2′, 3′		1′-OH, 3′-OH
4-OH	9.09, s		3, 4, 5		
1′-OH	8.38, s		1′, 2′, 6′		2′-Me
3′-OH	9.01, s		2′, 3′, 4′		4′, 2′-Me



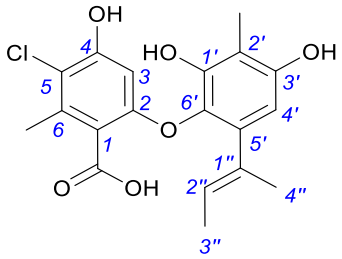


Table S12. ^{1}H (500 MHz) and ^{13}C (125 MHz) NMR data for 5-chlorounguinolic acid (**12**) in DMSO-d_6

Pos.	δ_H, mult (*J* in Hz)	δ_C	HMBC	COSY	ROESY
1		116.8			
2		154.2			
3	6.02, s	99.6	1, 2, 4, 5, 1-CO_2H		2″, 4″, 4-OH
4		154.3			
5		113.0			
6		134.2			
1′		148.0			
2′		110.6			
3′		152.9			
4′	6.20, s	105.7	2′, 3′, 6′, 1″		2″, 4″, 3′-OH
5′		135.9			
6′		131.2			
1″		132.9			
2″	5.44, qq (6.7, 1.4)	124.0	5′, 3″, 4″	3″	3, 4′, 3″
3″	1.55, dq (6.7, 1.0)	13.8	1″, 2″	2″	2″
4″	1.74, dq (1.4, 1.0)	16.5	5′, 1″, 2″		3, 4′
6-Me	2.27, s	17.3	1, 5, 6		
2′-Me	1.96, s	8.9	1′, 2′, 3′		3′-OH
4-OH	10.22, s		3, 4, 5		3
1′-OH	8.41, br s				
3′-OH	9.16, s		2′, 3′, 4′		4′, 2′-Me
1-CO_2H	12.94, br s	168.1			

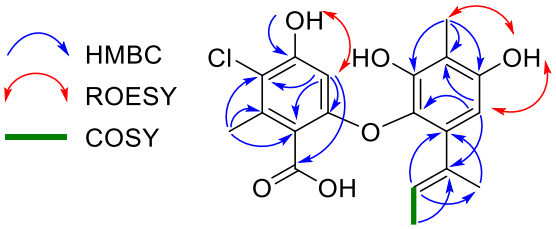


Table S13. Recipes for microbiological media

Glycerol casein agar (GCA)	
Ingredient	Quantity
Glycerol	30 g
Casein peptone (Amyl)	2 g
K_2HPO_4	1 g
NaCl	1gm
$MgSO_4.7H_2O$	0.5 g
Trace element solution*	5 mL
Deionised water	1000 mL
Bacteriological agar[a] (Amyl)	20 g
Autoclave	121 °C

*Trace element solution	
$CaCl_2.2H_2O$	3 g
$FeC_6O_7H_5$	1 g
$MnSO_4$	0.2 g
$ZnCl_2$	0.1 g
$CuSO_4.5H_2O$	0.025 g
$Na_2B_4O_7.10H_2O$	0.02 g
$CoCl_2$	0.004
$Na_2MoO_4.2H_2O$	0.01
Deionised water	1000 mL
Filter sterilise	

Yeast Extract agar	
Ingredient	Quantity
Yeast Extract (Difco)	20 g
Sucrose (Amyl)	150 g
Bacteriological Agar[a] (Amyl)	20 g
Deionised water	1000 mL
Autoclave	121 °C

Malt extract agar	
Ingredient	Quantity
Bacteriological peptone (Difco)	3 g
Malt Extract (Amyl)	60 g
Bacteriological glucose (Amyl)	60 g
Distilled water	1000 mL
Adjust pH to 5.5	
Bacteriological agar[a] (Amyl)	20 g
Autoclave	121 °C

Czapeks Dox agar	
Ingredient	Quantity
Czapeks Dox Media (Oxoid)	45.4 g
Deionised water	1000 mL
Autoclave	121 °C

Oatmeal agar	
Ingredient	Quantity
Oatmeal	60 g
Agar[a]	12.5
Distilled water	1000 mL
Autoclave	121 °C

[a] Omit agar for liquid media

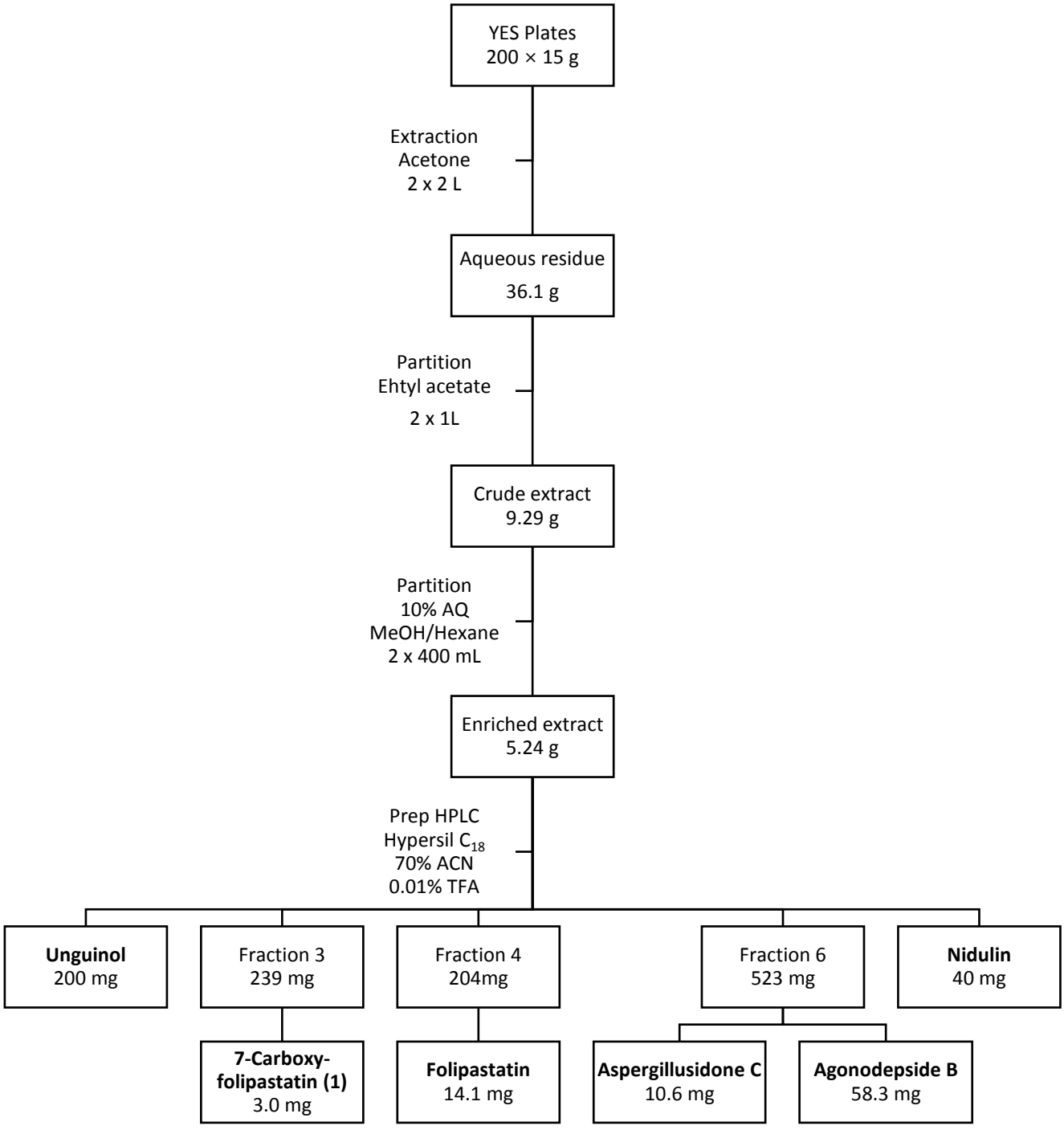


Figure S1. Fractionation scheme for *A. unguis* grown on YES Agar plates

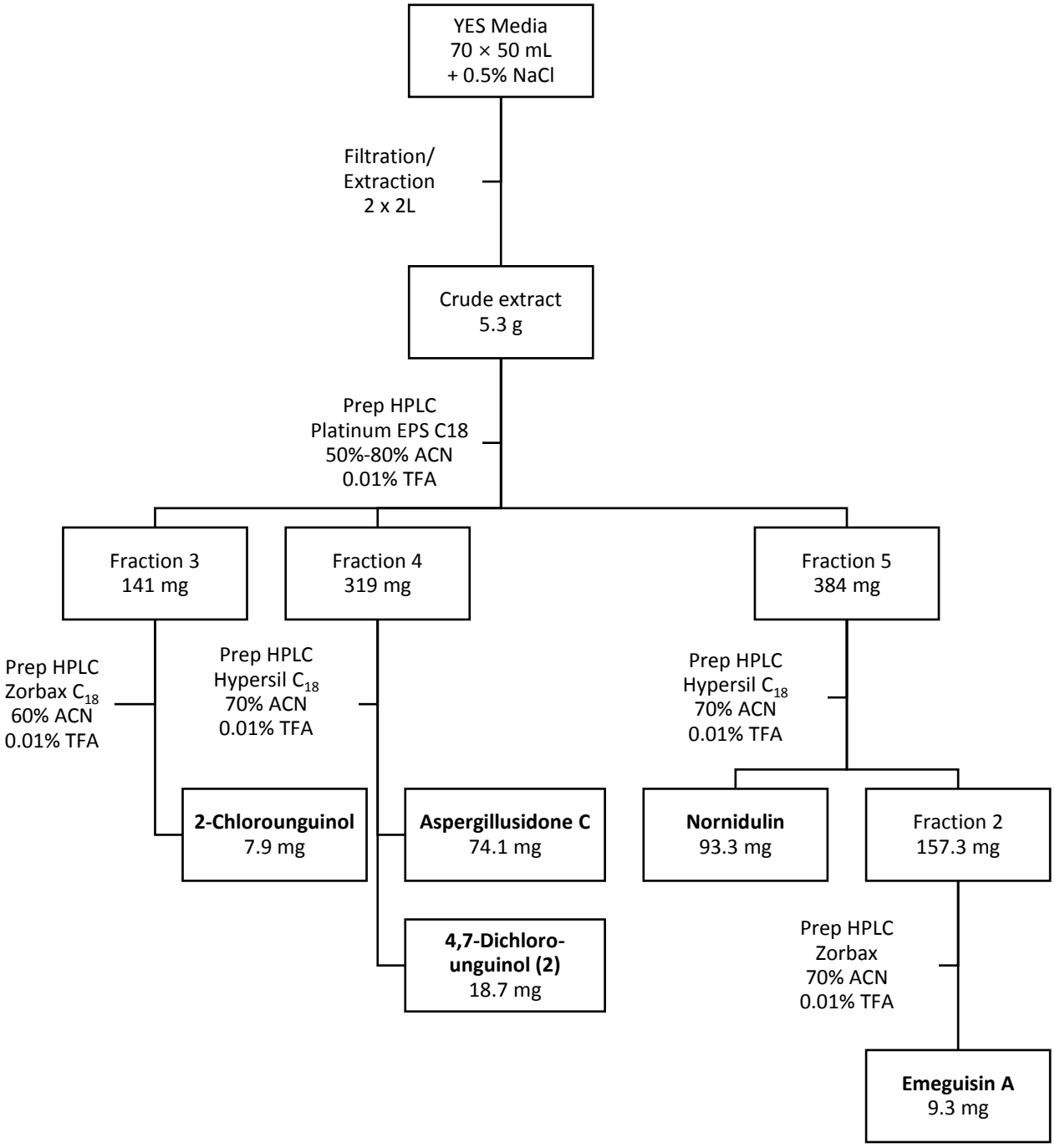


Figure S2. Fractionation scheme for *A. unguis* grown in YES media supplemented with 0.5% NaCl

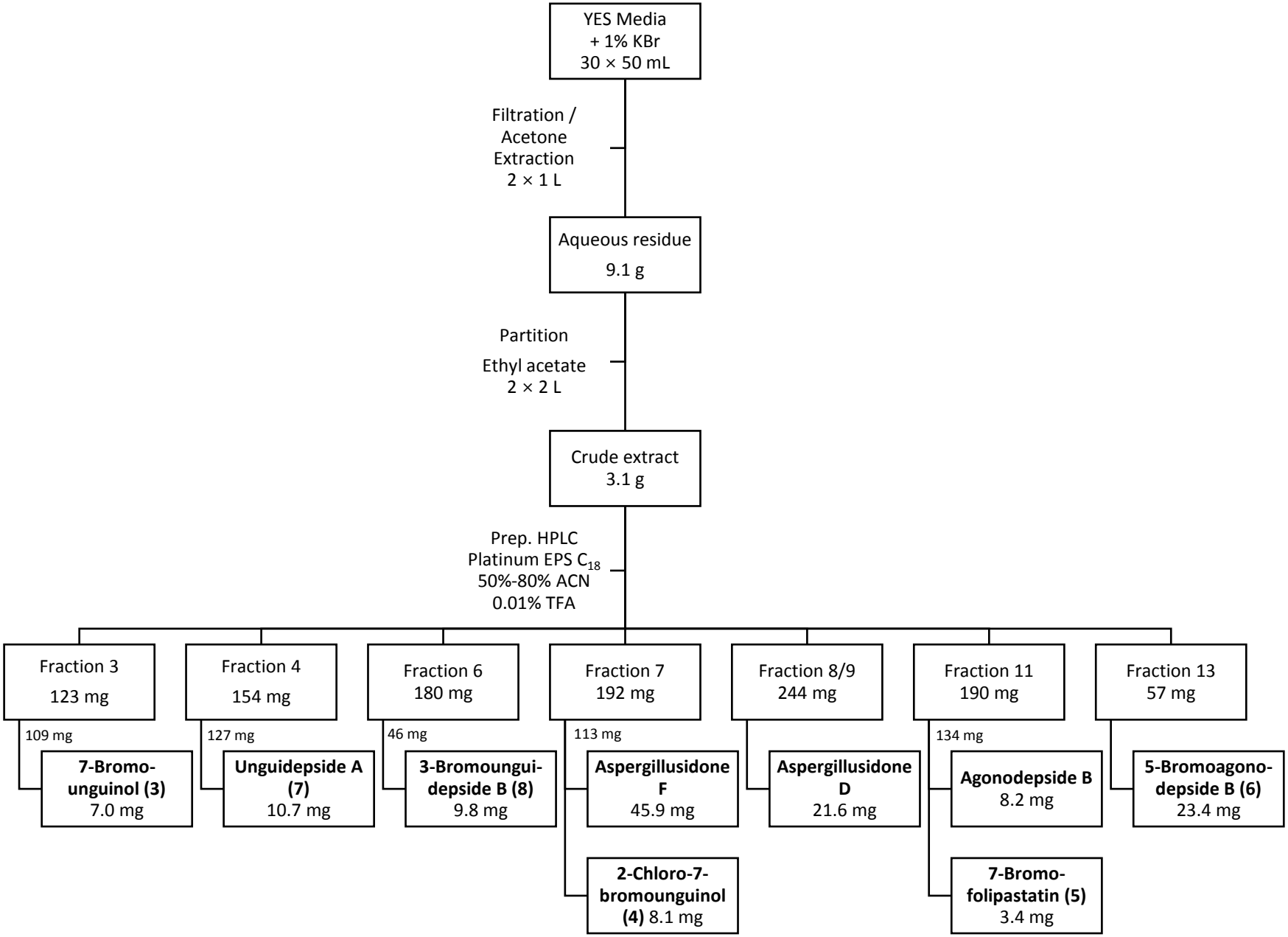


Figure S3. Fractionation scheme for *A. unguis* grown in YES media supplemented with 1% KBr

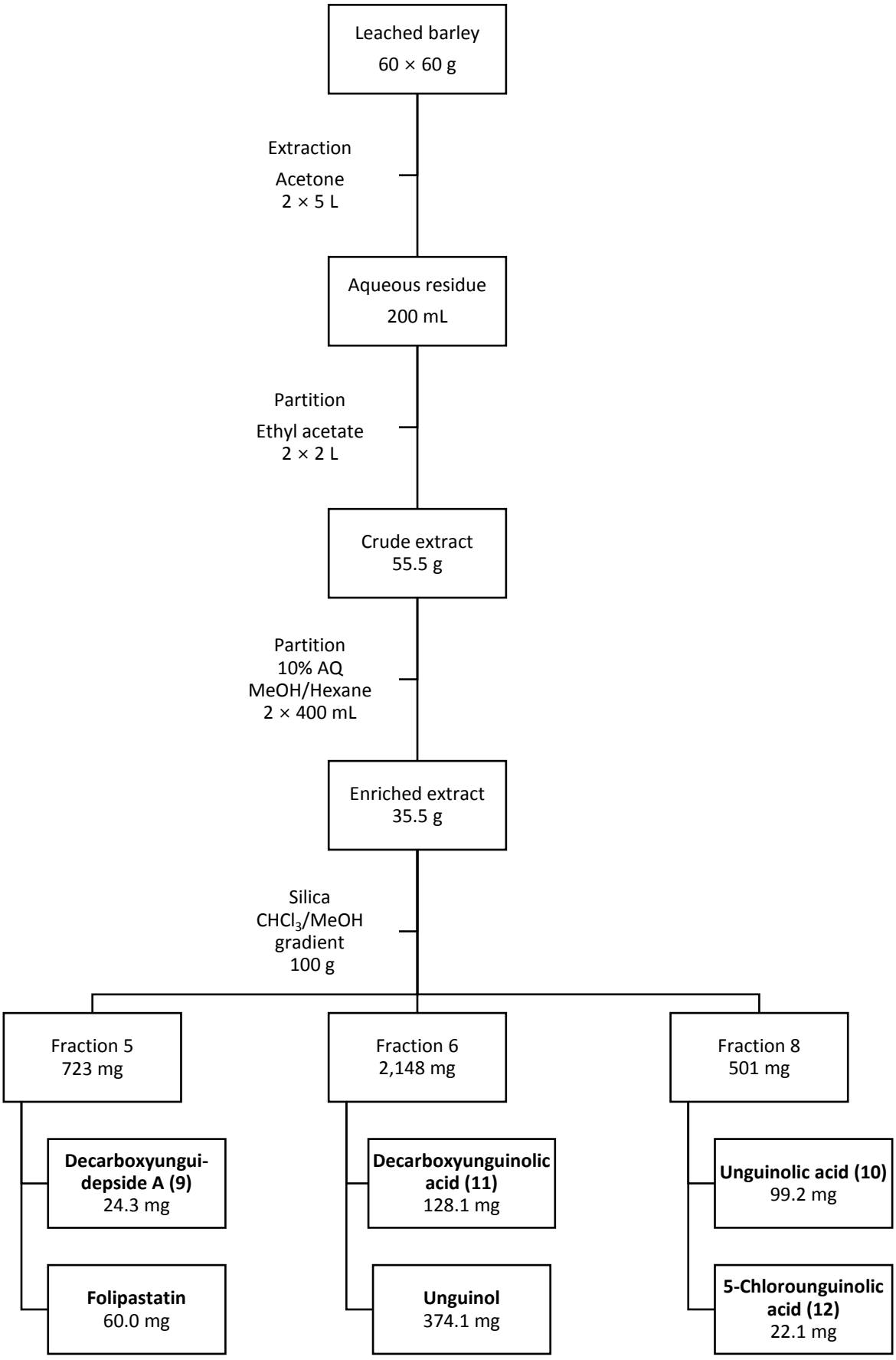


Figure S4. Fractionation scheme for *A. unguis* grown on leached barley

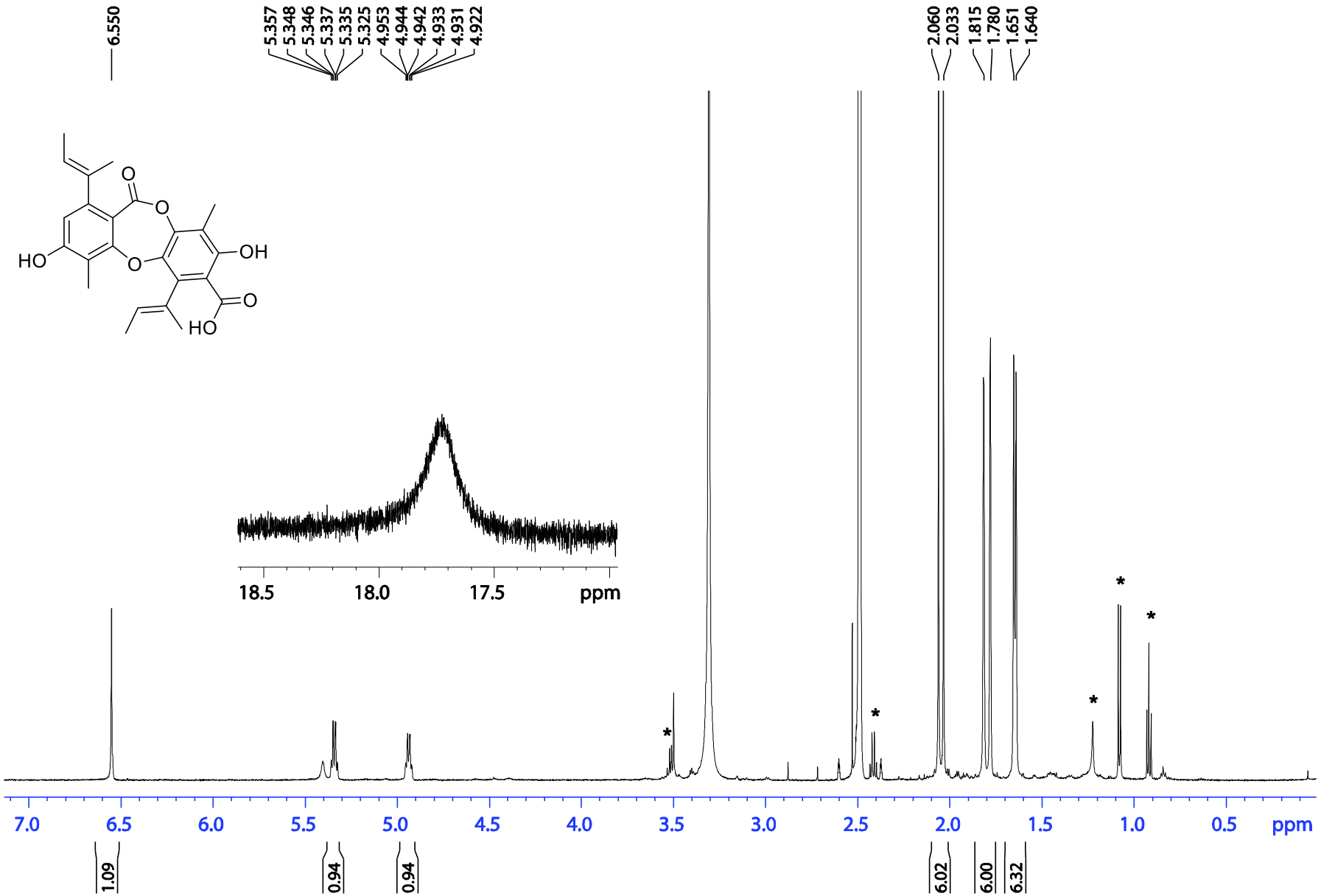


Figure S5. ^{1}H NMR spectrum (600 MHz, DMSO-d_6) of 7-carboxyfolipastatin (**1**). * = Minor unrelated impurity

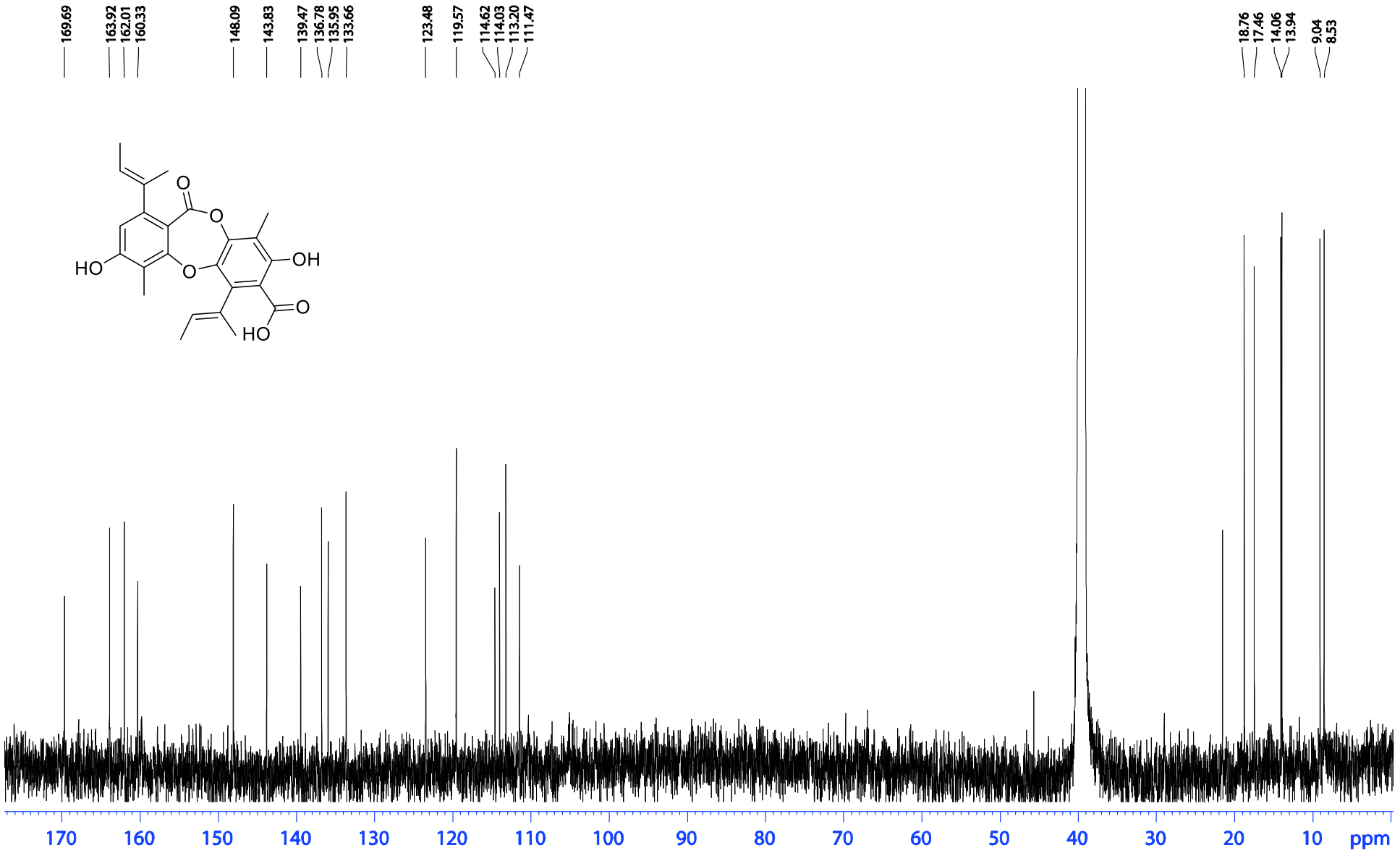


Figure S6. ^{13}C NMR spectrum (150 MHz, DMSO-d_6) of 7-carboxyfolipastatin (**1**)

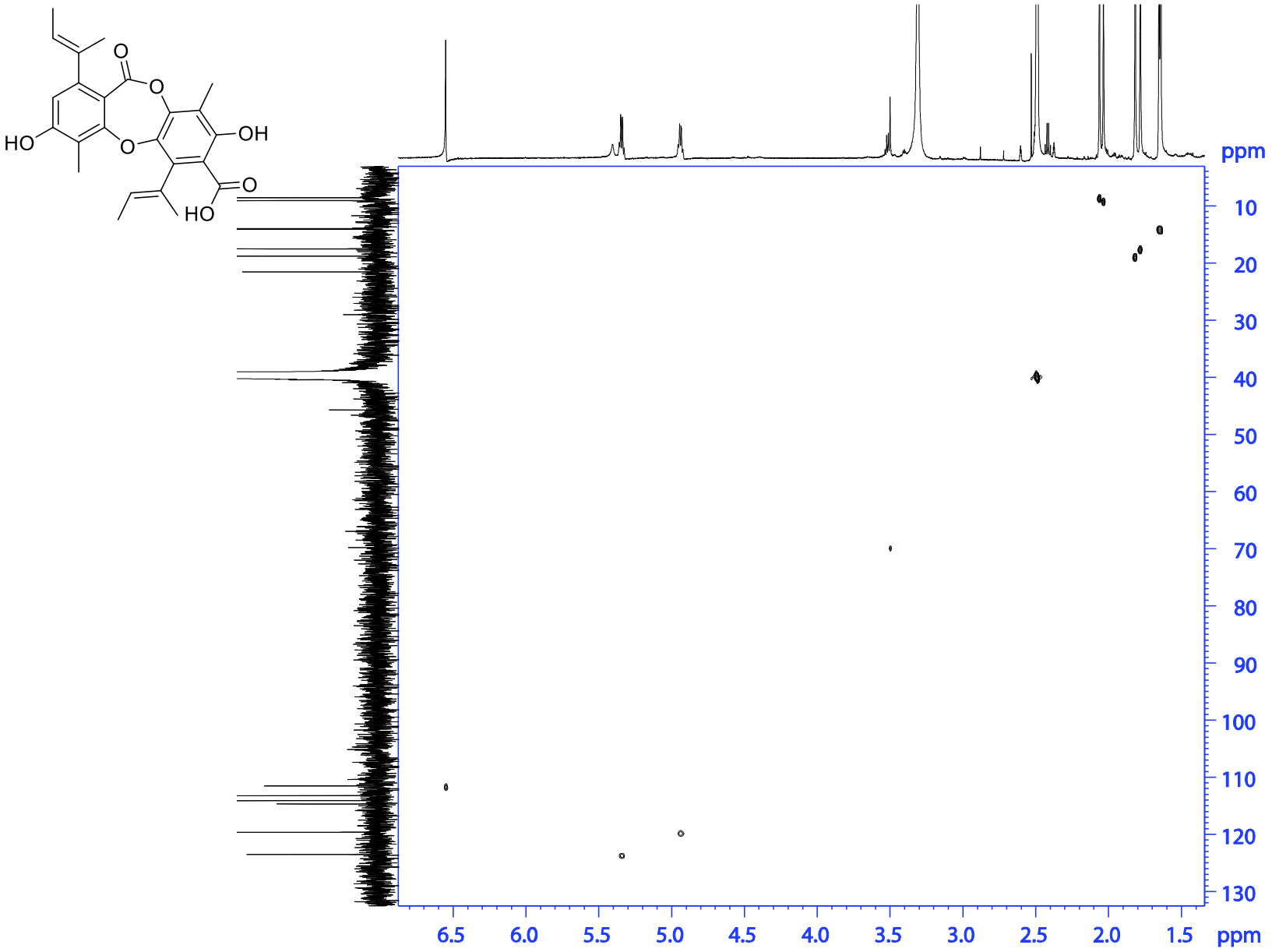


Figure S7. ^{1}H-^{13}C HSQC NMR spectrum (600 MHz, DMSO-d_6) of 7-carboxyfolipastatin (**1**)

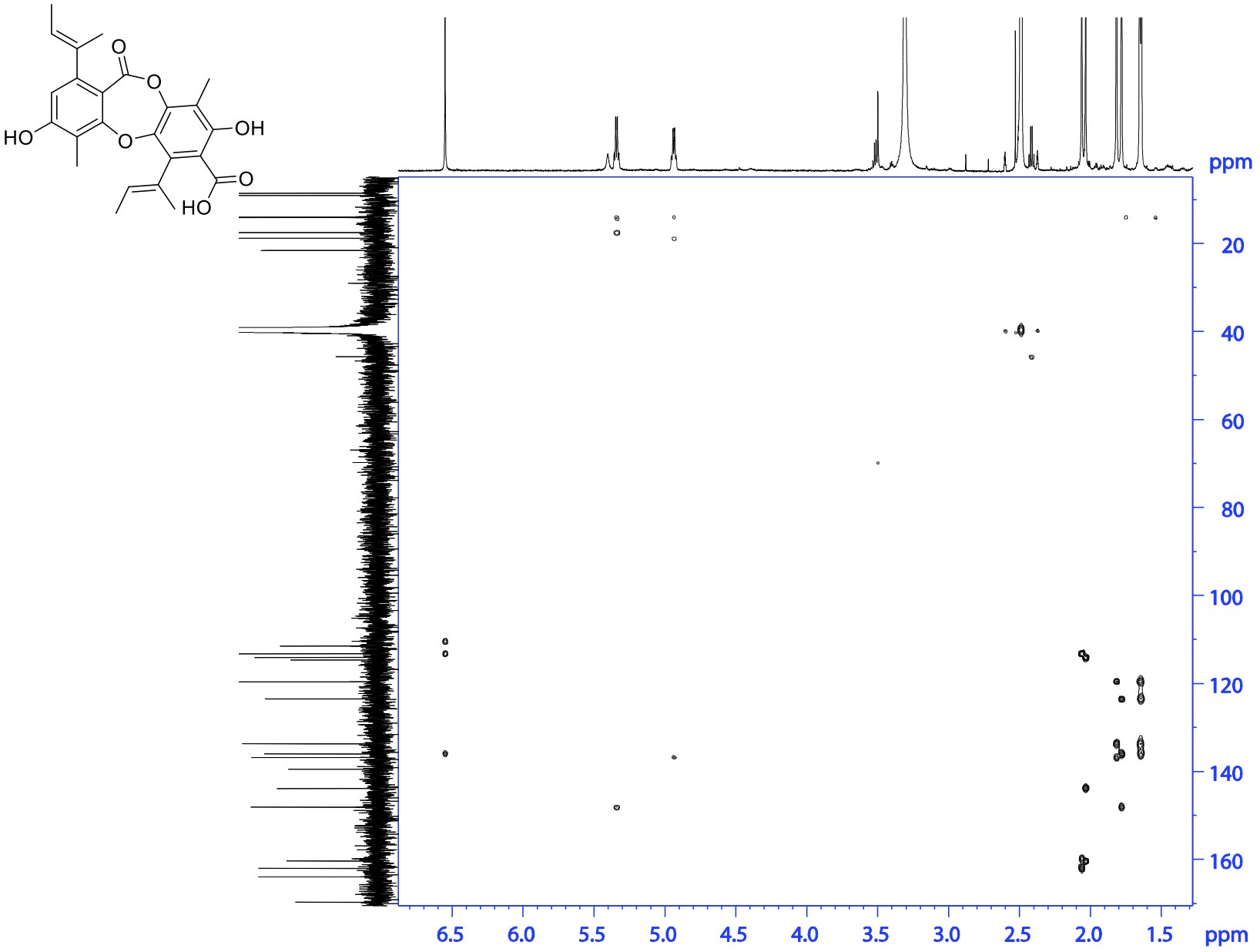


Figure S8. ^{1}H-^{13}C HMBC NMR spectrum (600 MHz, DMSO-d_6) of 7-carboxyfolipastatin (**1**)

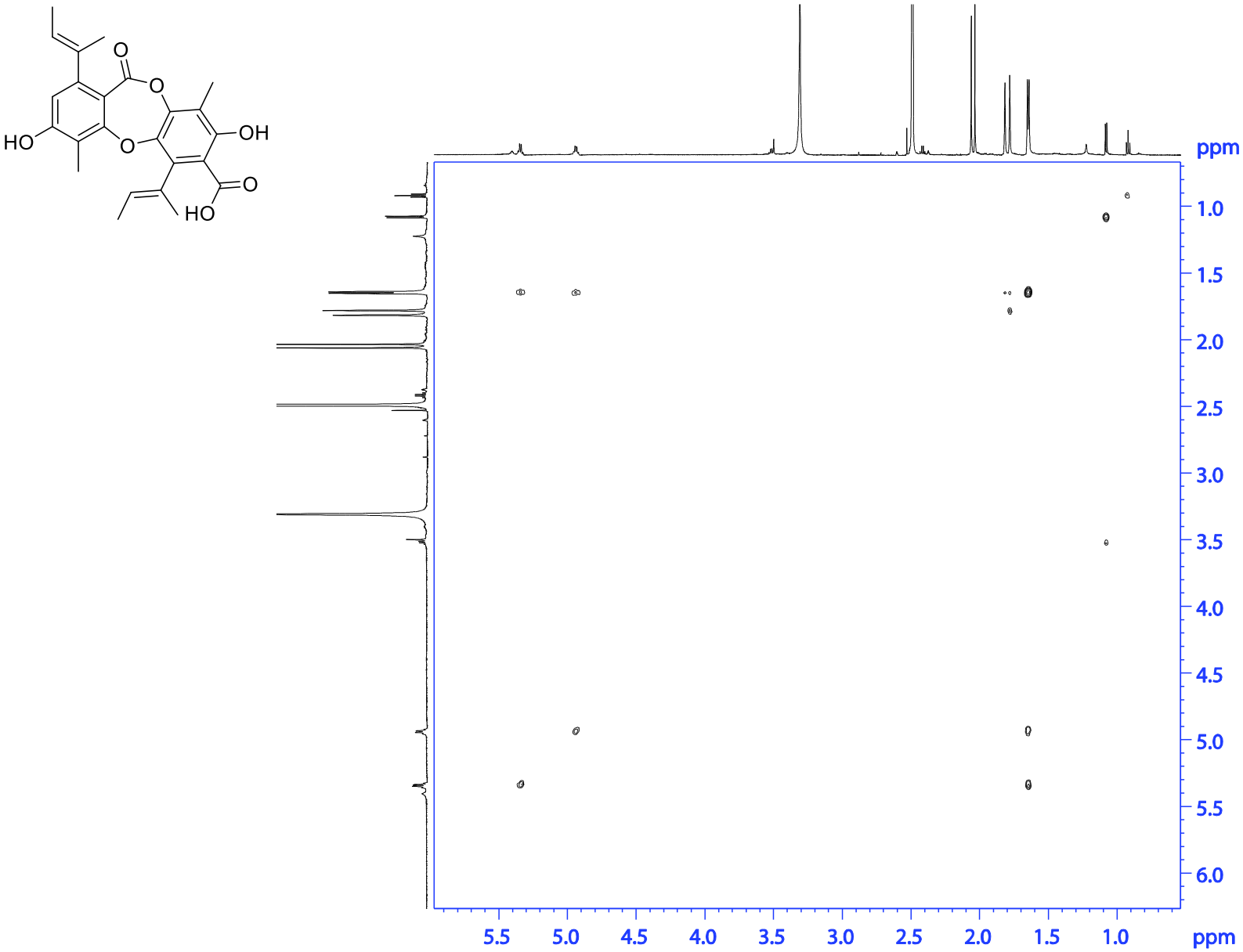


Figure S9. ^{1}H-^{1}H COSY NMR spectrum (600 MHz, DMSO-d_6) of 7-carboxyfolipastatin (**1**)

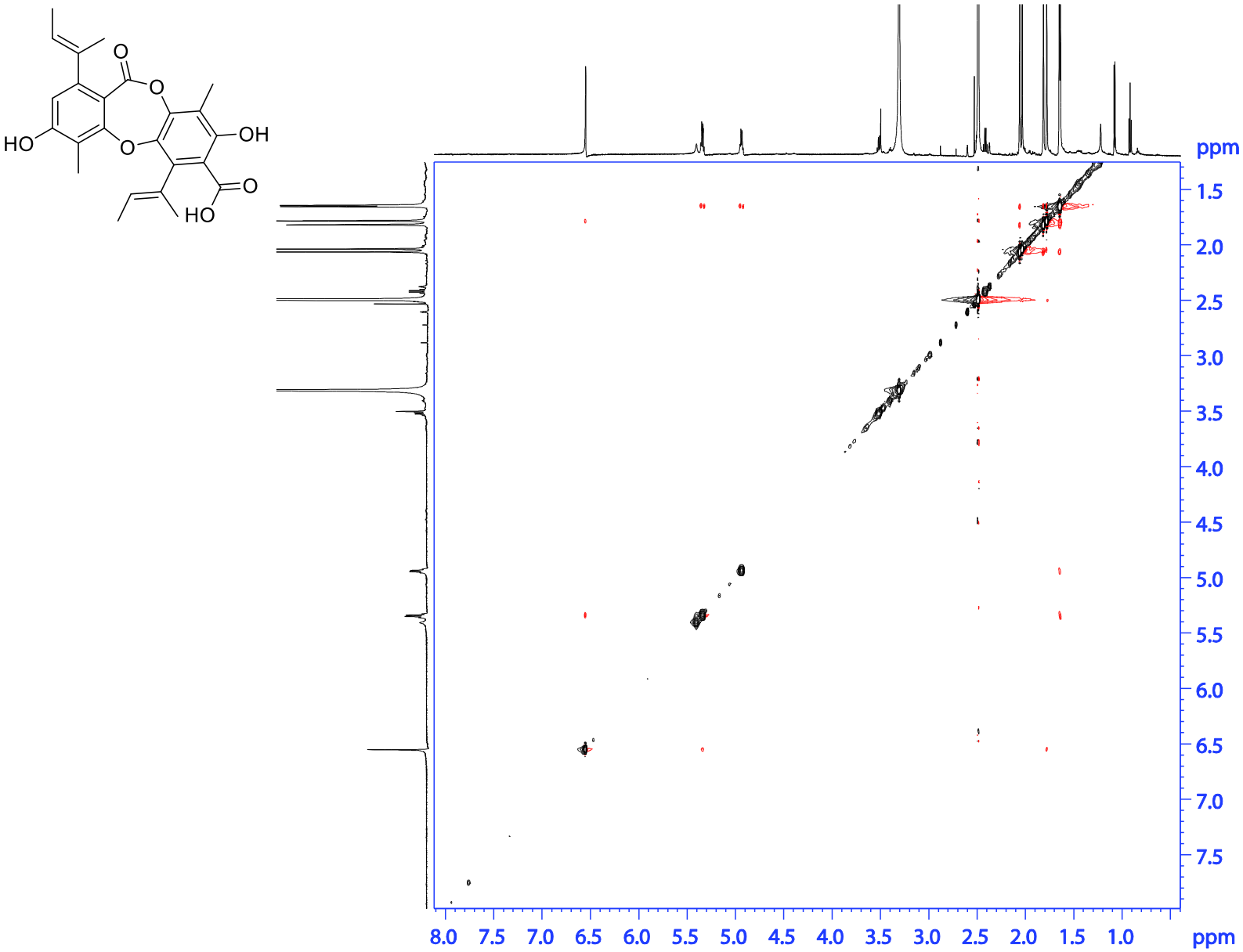


Figure S10. ^{1}H-^{1}H ROESY NMR spectrum (600 MHz, DMSO-d_6) of 7-carboxyfolipastatin (**1**)

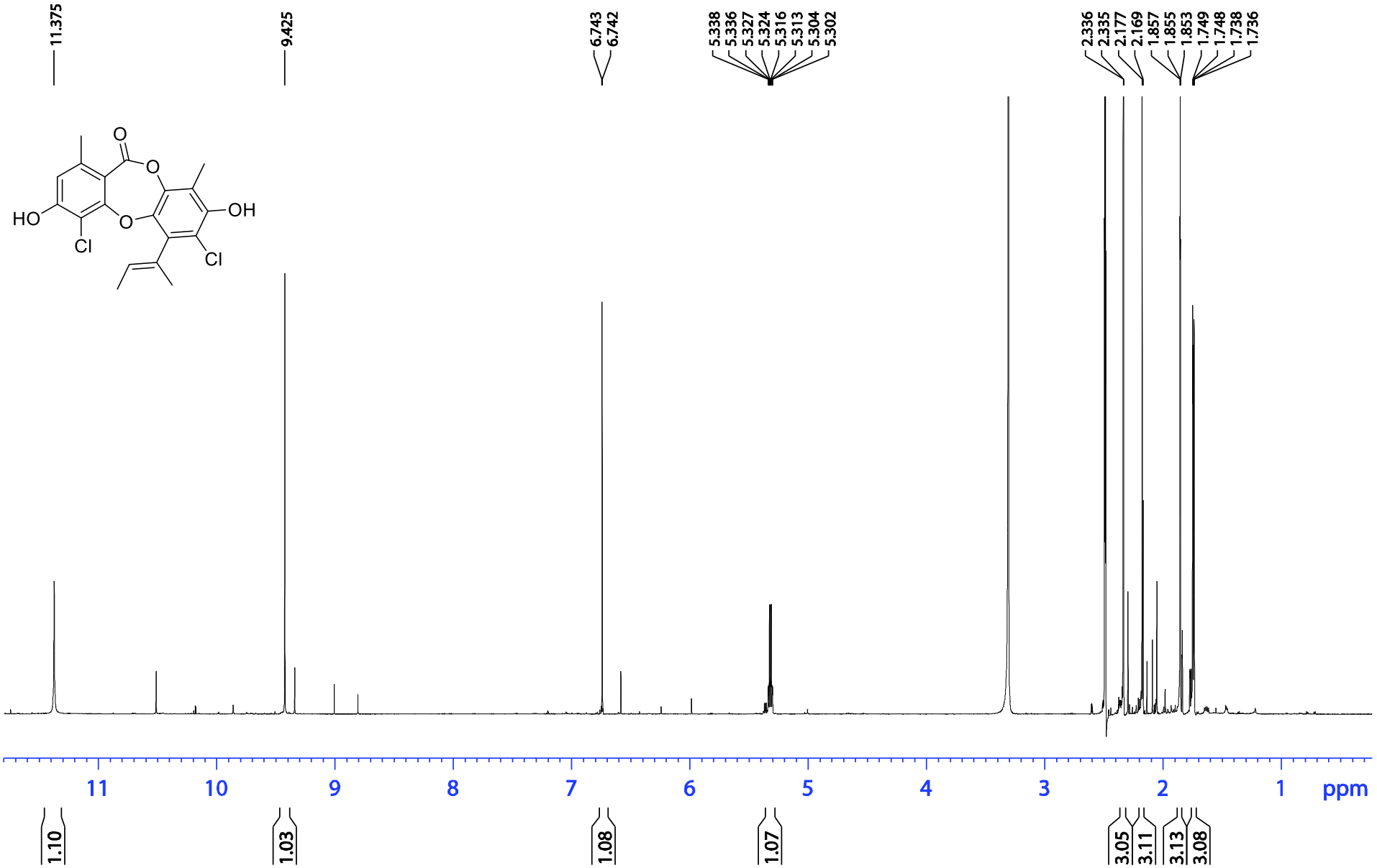


Figure S11. ^{1}H NMR spectrum (600 MHz, DMSO-d_6) of 4,7-dichlorounguinol (**2**)

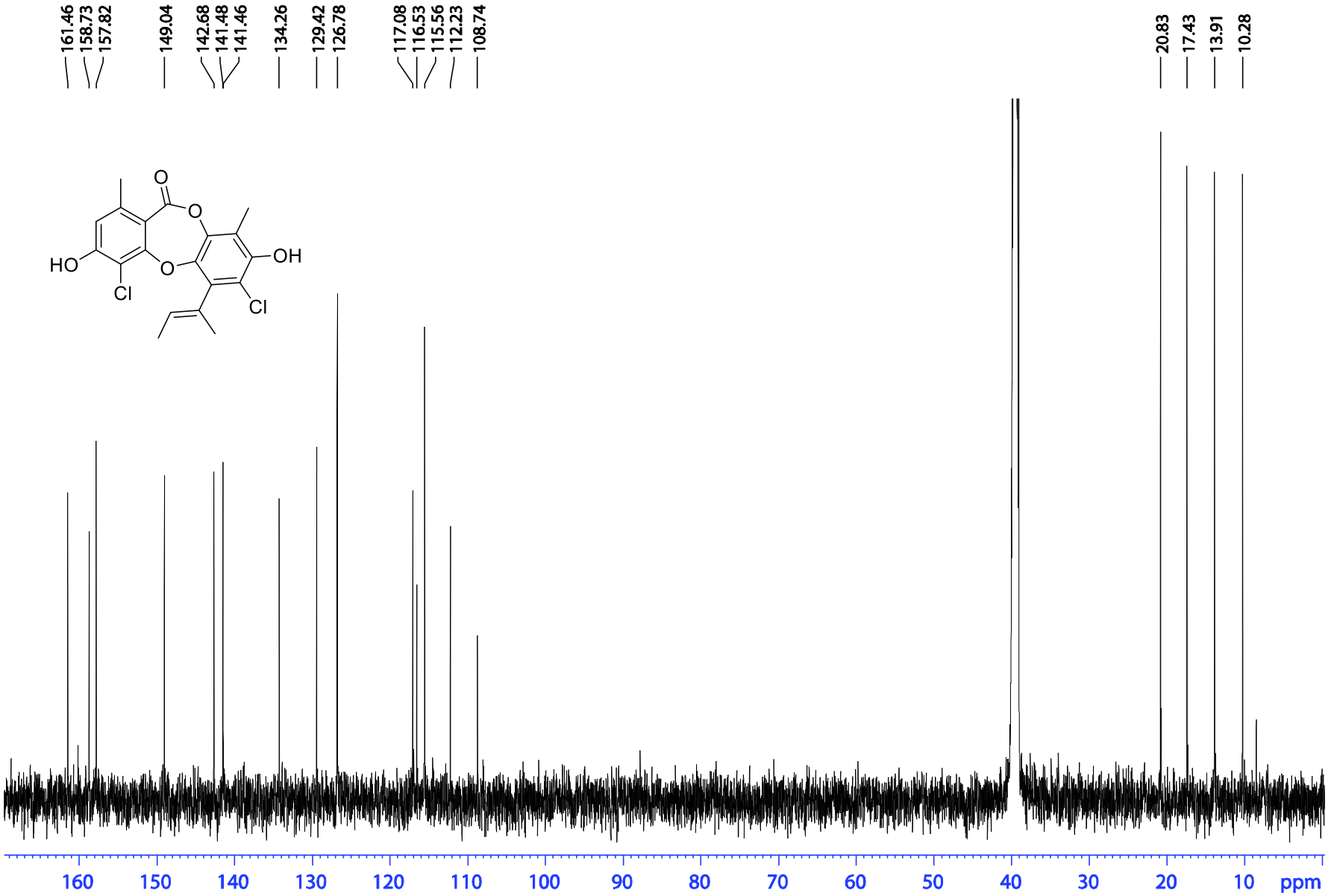


Figure S12. ^{13}C NMR spectrum (150 MHz, DMSO-d_6) of 4,7-dichlorounguinol (**2**)

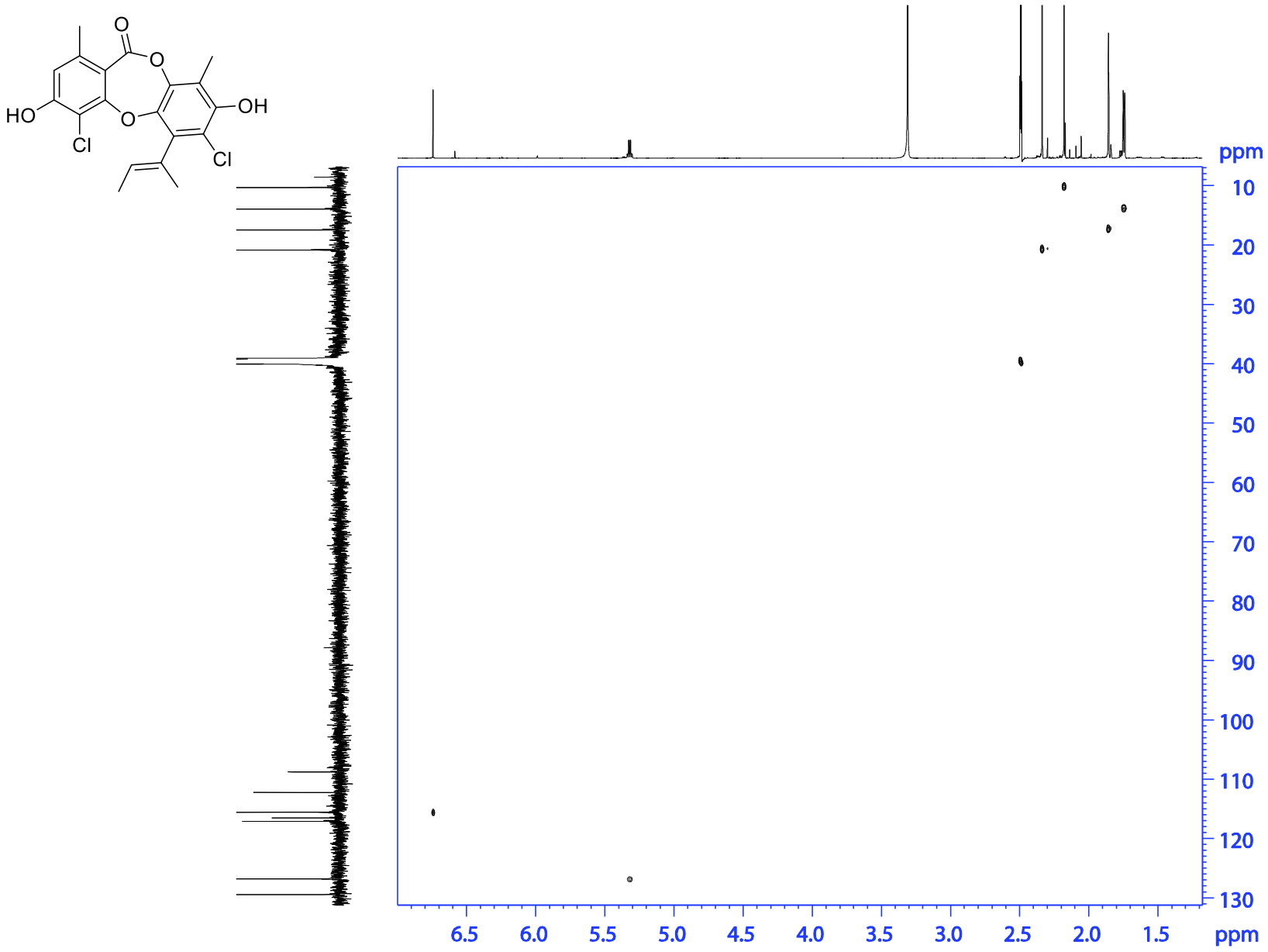


Figure S13. ^{1}H-^{13}C HSQC NMR spectrum (600 MHz, DMSO-d_6) of 4,7-dichlorounguinol (**2**)

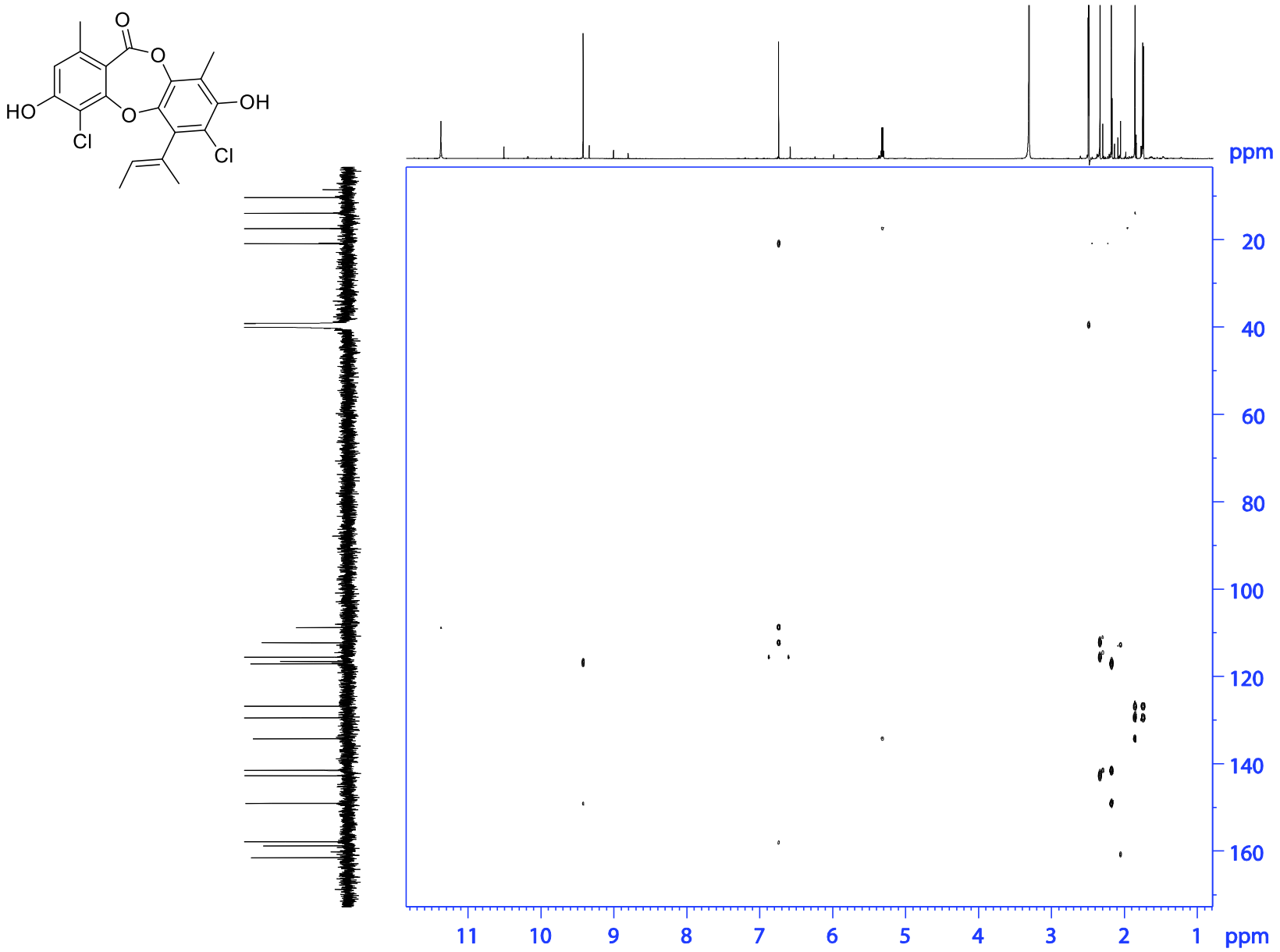


Figure S14. ^{1}H-^{13}C HMBC NMR spectrum (600 MHz, DMSO-d_6) of 4,7-dichlorounguinol (**2**)

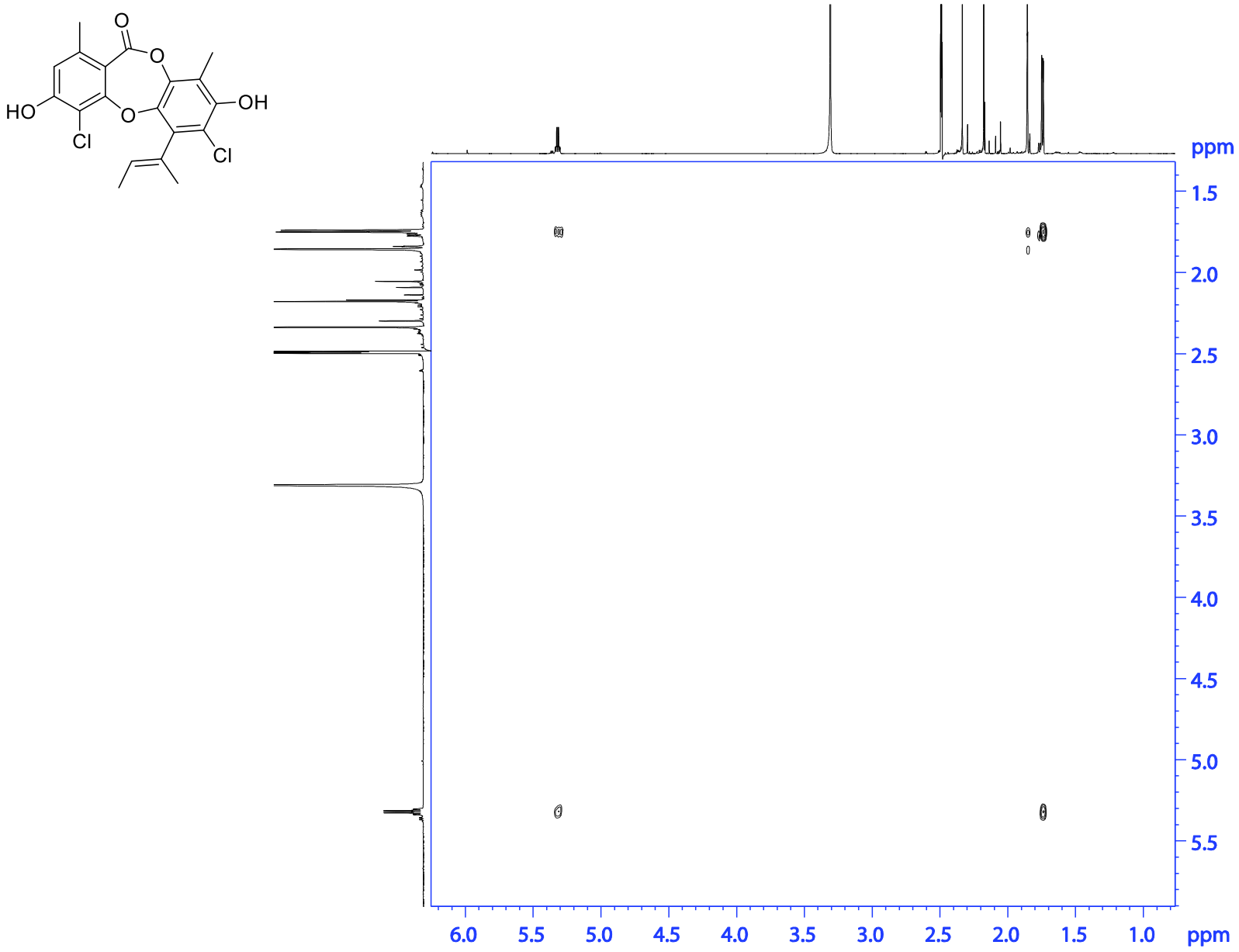


Figure S15. ^{1}H-^{1}H COSY NMR spectrum (600 MHz, DMSO-d_6) of 4,7-dichlorounguinol (**2**)

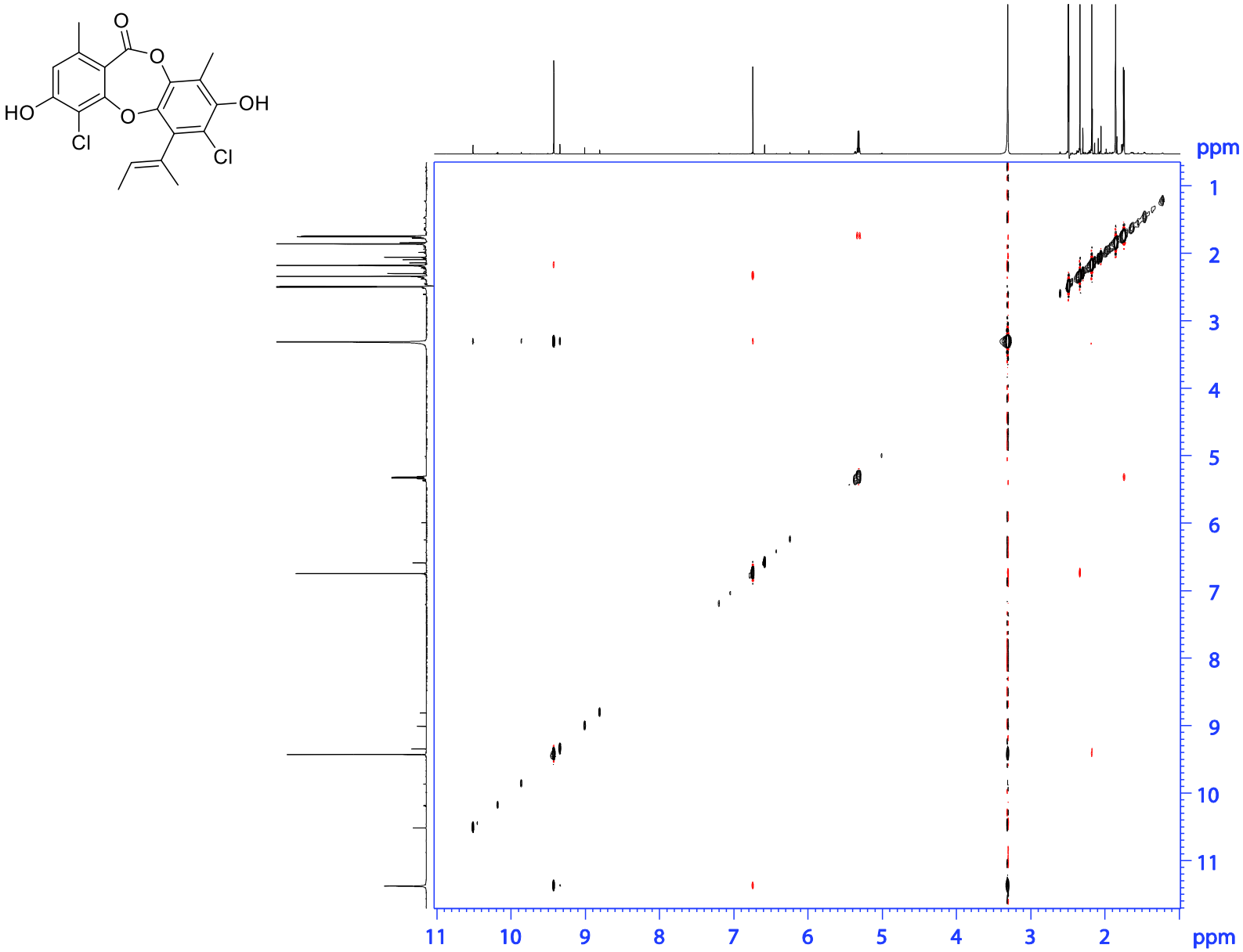


Figure S16. ^{1}H-^{1}H ROESY NMR spectrum (600 MHz, DMSO-d_6) of 4,7-dichlorounguinol (**2**)

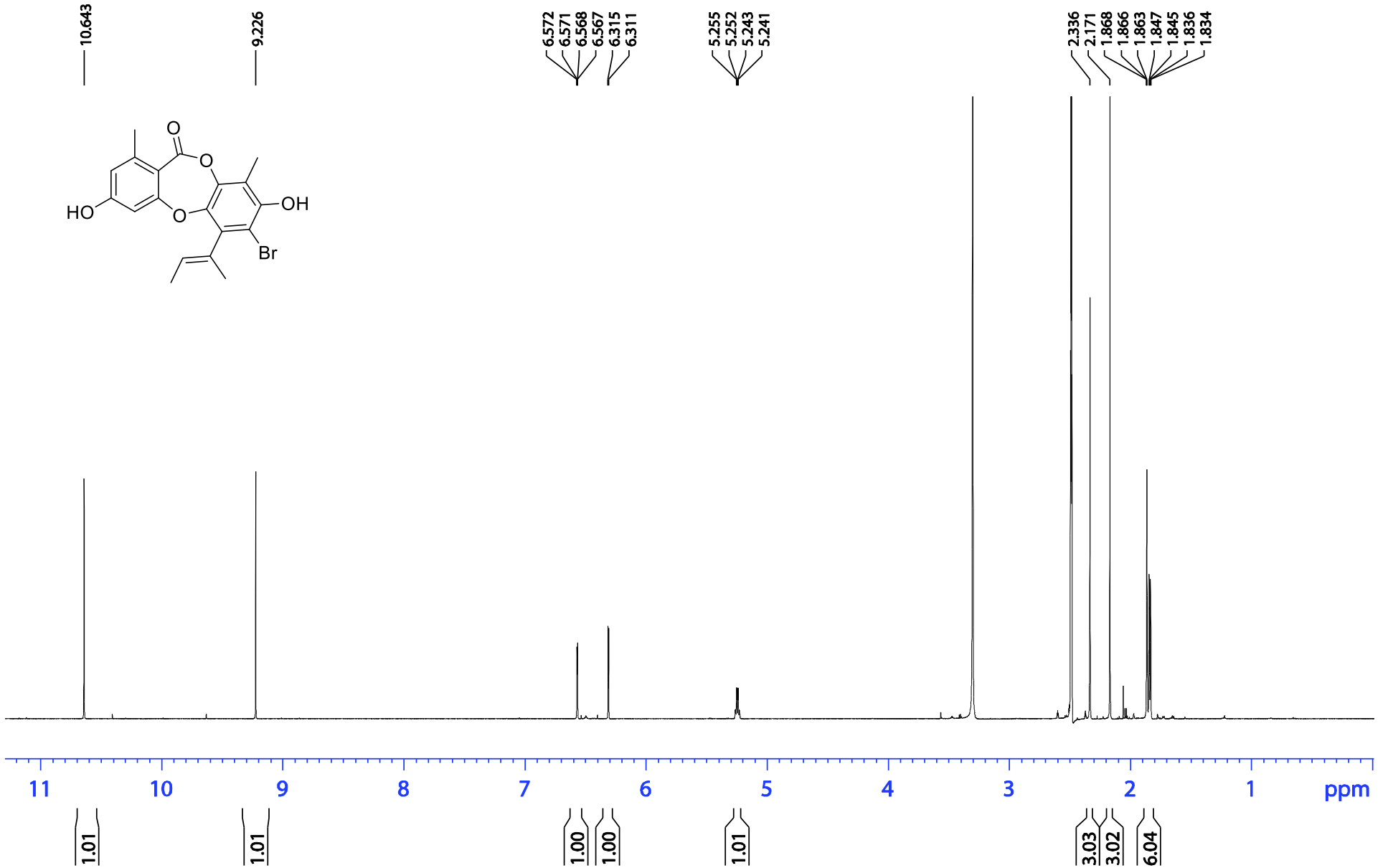


Figure S17. ^{1}H NMR spectrum (600 MHz, DMSO-d_6) of 7-bromounguinol (**3**)

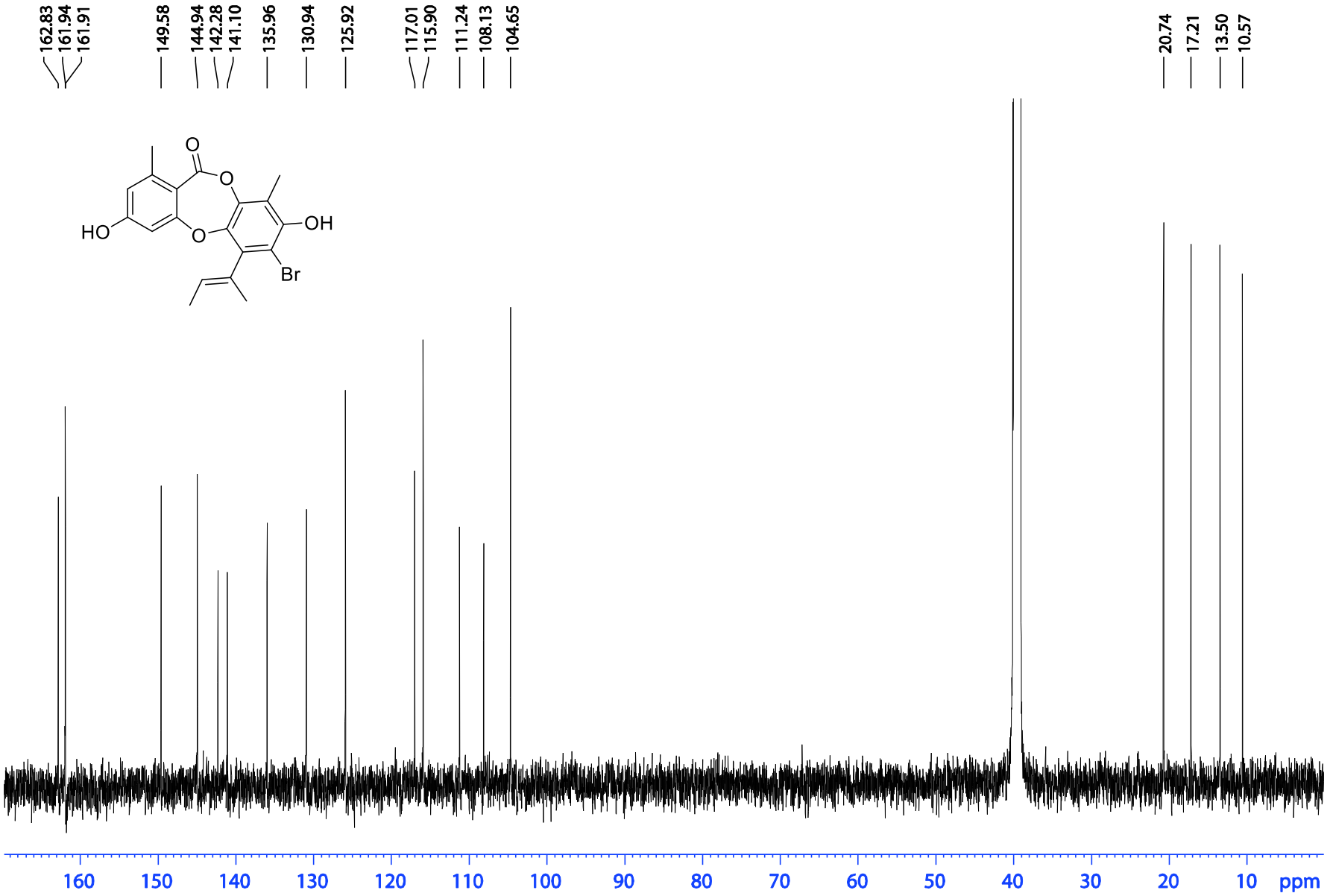


Figure S18. ^{13}C NMR spectrum (150 MHz, DMSO-d_6) of 7-bromounguinol (**3**)

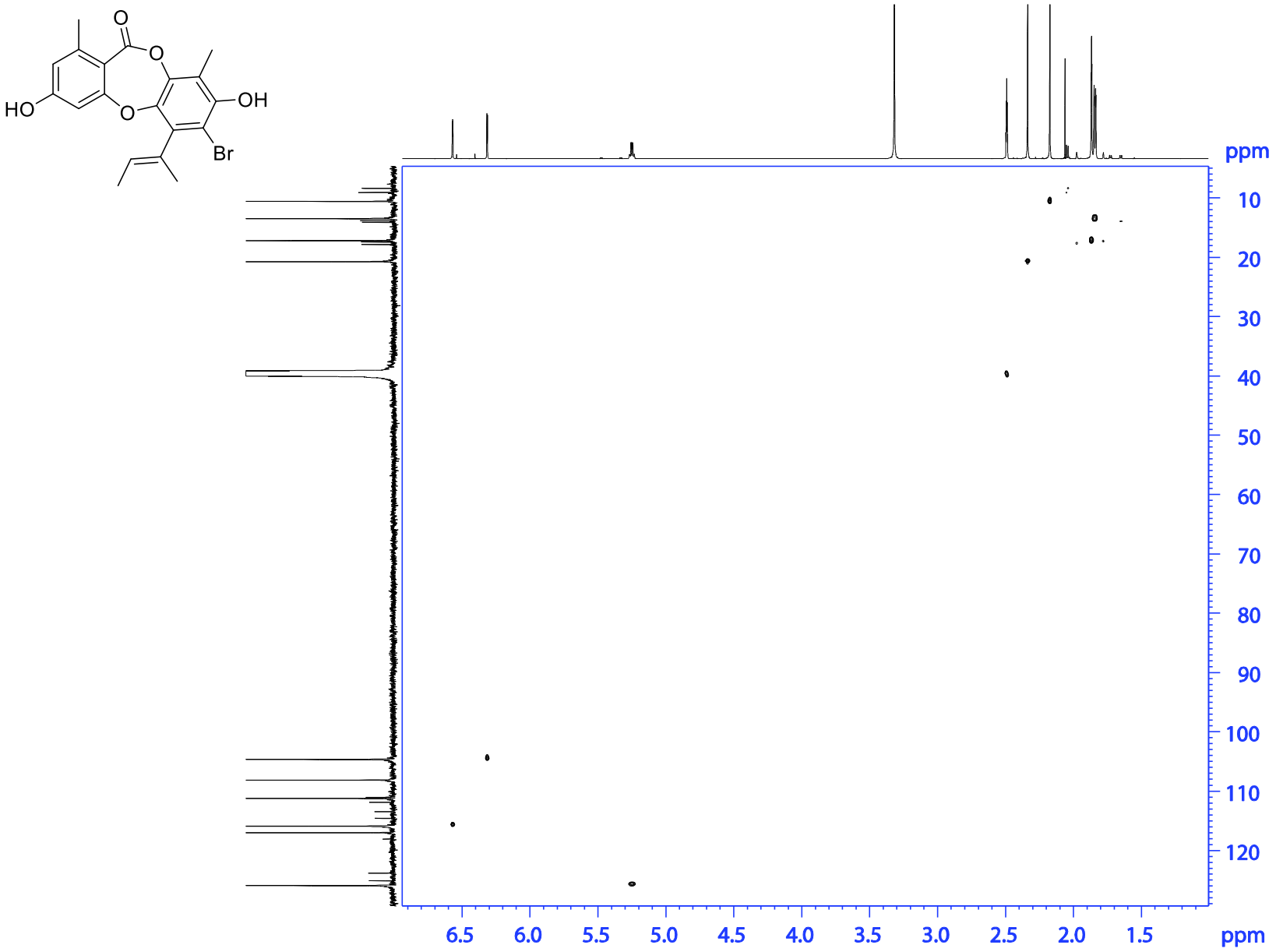


Figure S19. ^{1}H-^{13}C HSQC NMR spectrum (600 MHz, DMSO-d_6) of 7-bromounguinol (**3**)

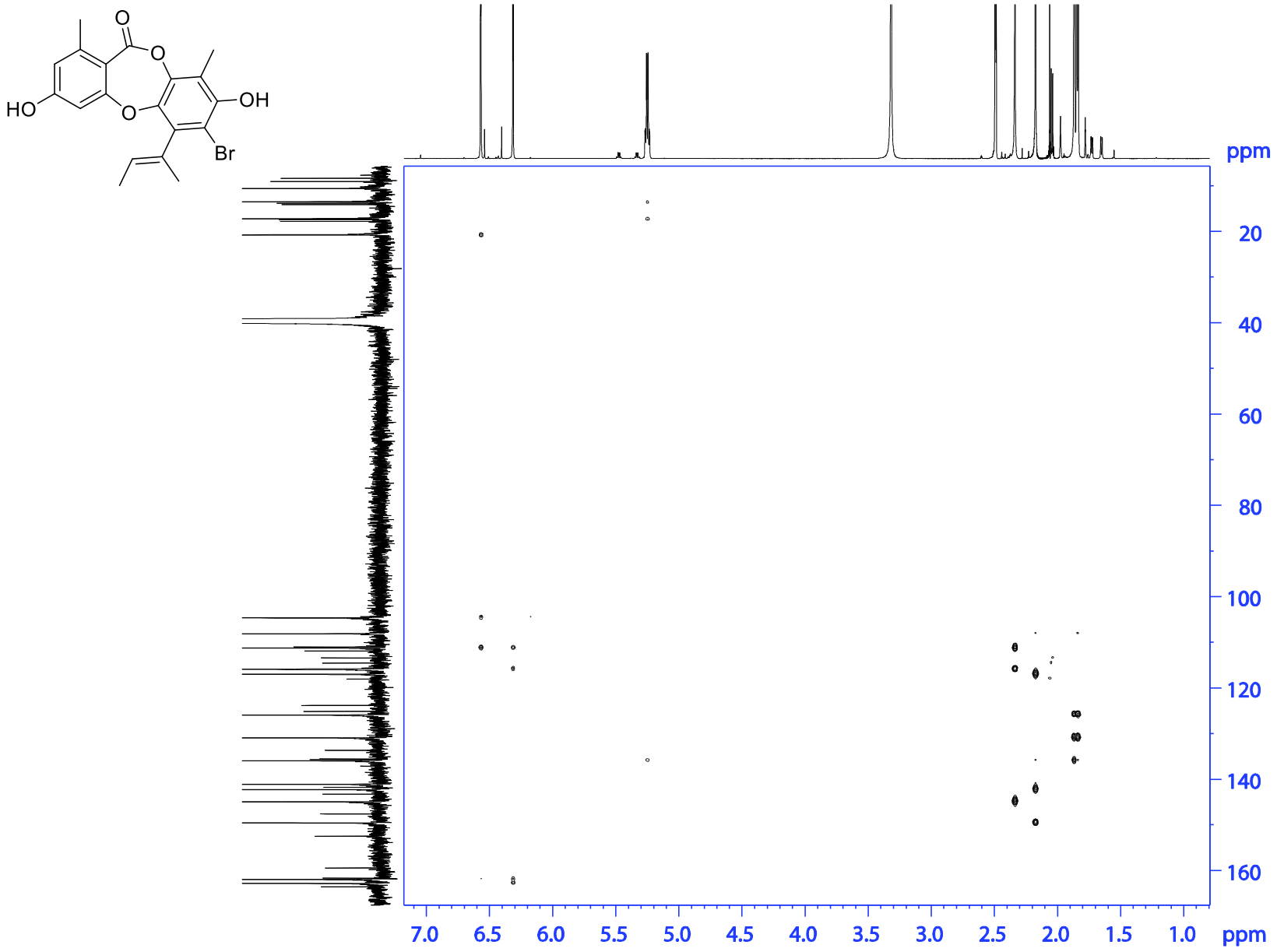


Figure S20. ^{1}H-^{13}C HMBC NMR spectrum (600 MHz, DMSO-d_6) of 7-bromounguinol (**3**)

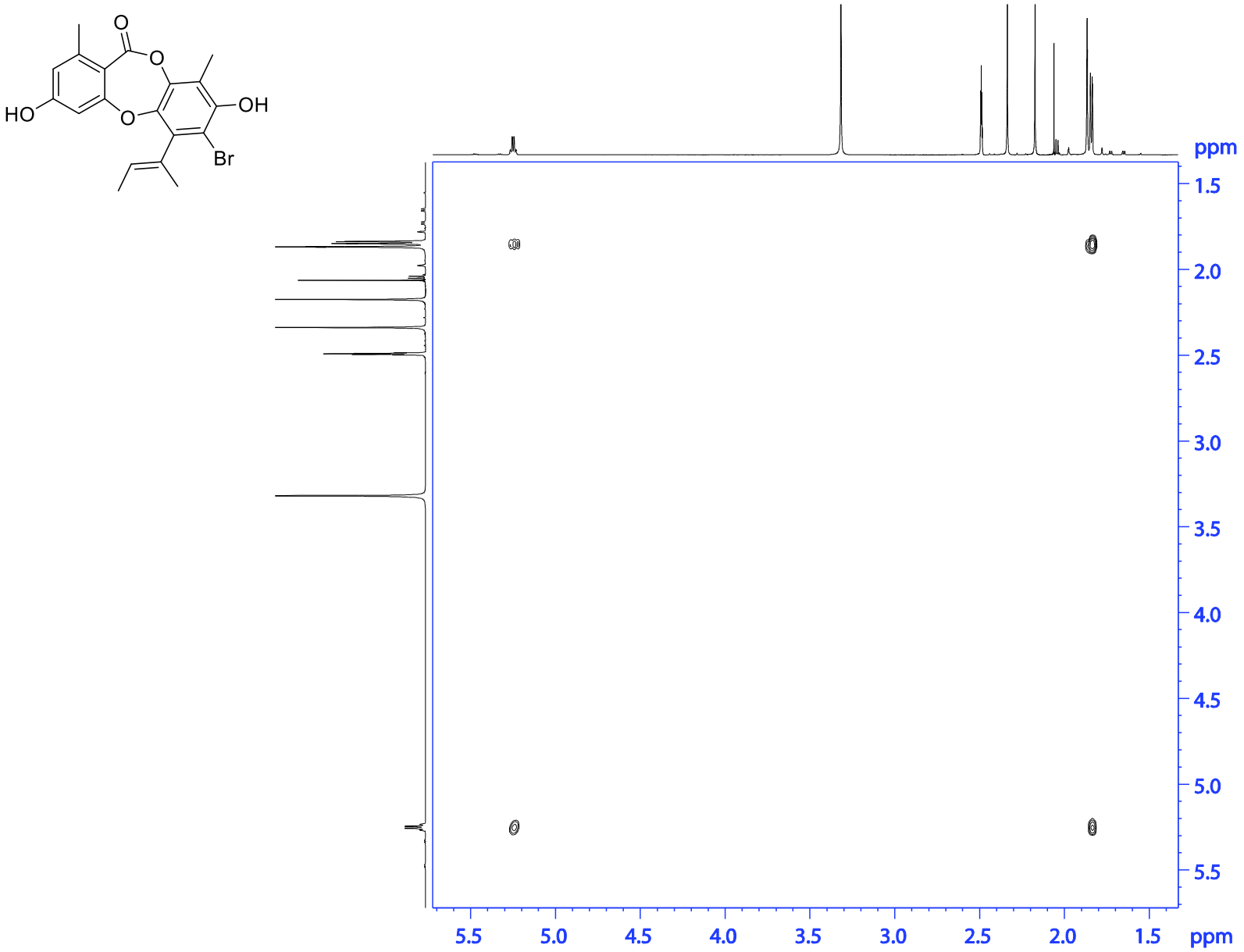


Figure S21. ^{1}H-^{1}H COSY NMR spectrum (600 MHz, DMSO-d_6) of 7-bromounguinol (**3**)

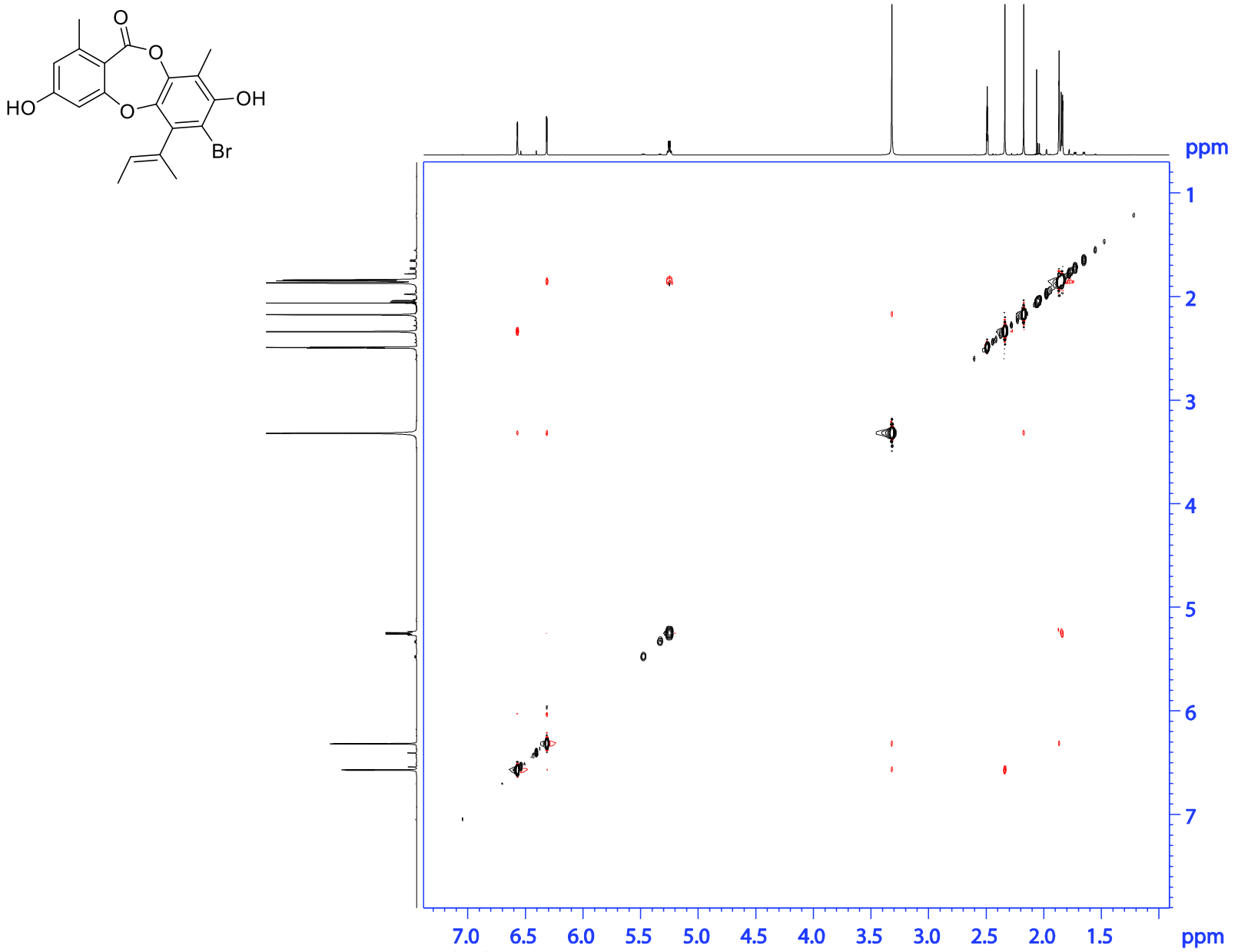


Figure S22. ^{1}H-^{1}H ROESY NMR spectrum (600 MHz, DMSO-d_6) of 7-bromounguinol (**3**)

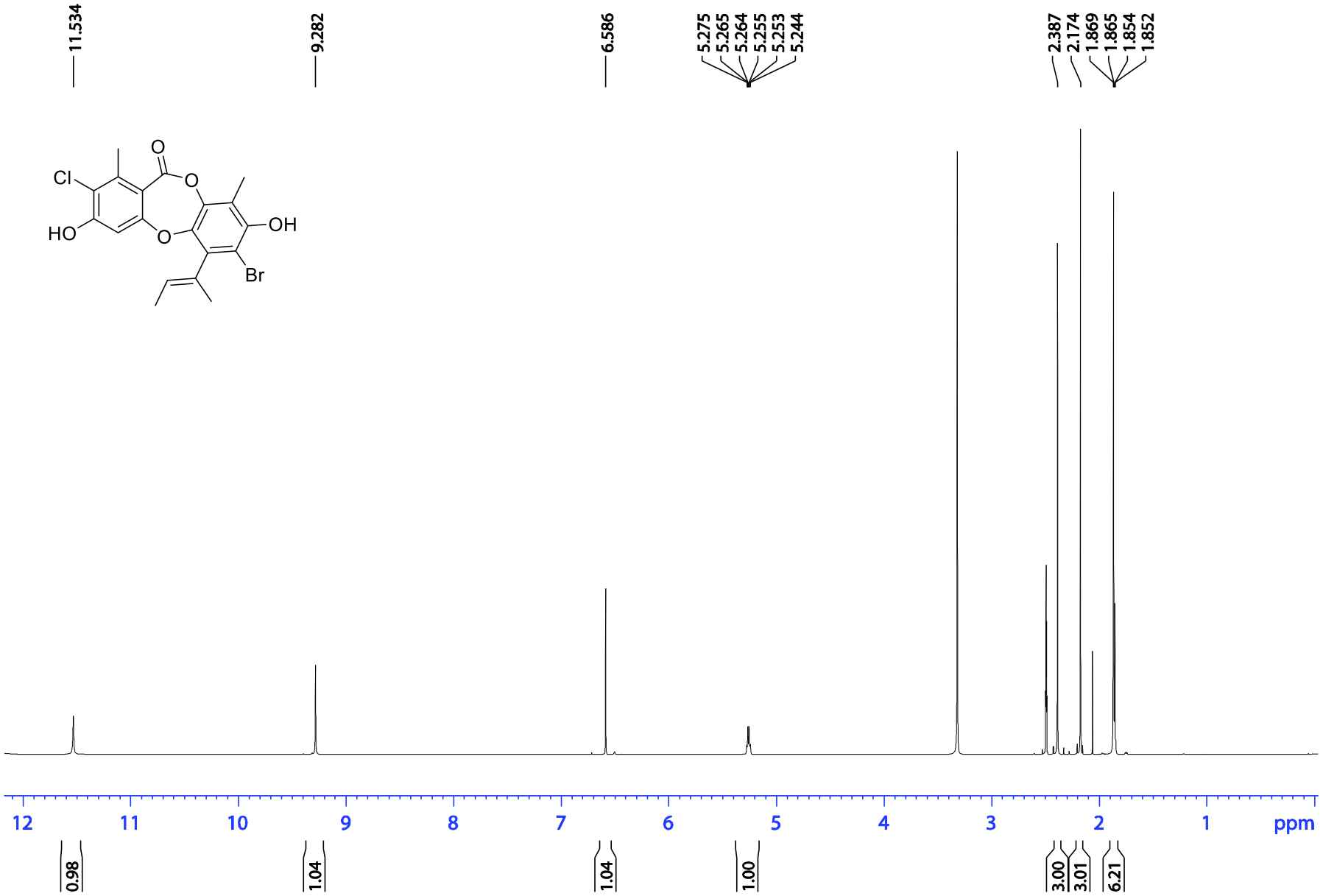


Figure S23. ^{1}H NMR spectrum (600 MHz, DMSO-d_6) of 2-chloro-7-bromounguinol (**4**)

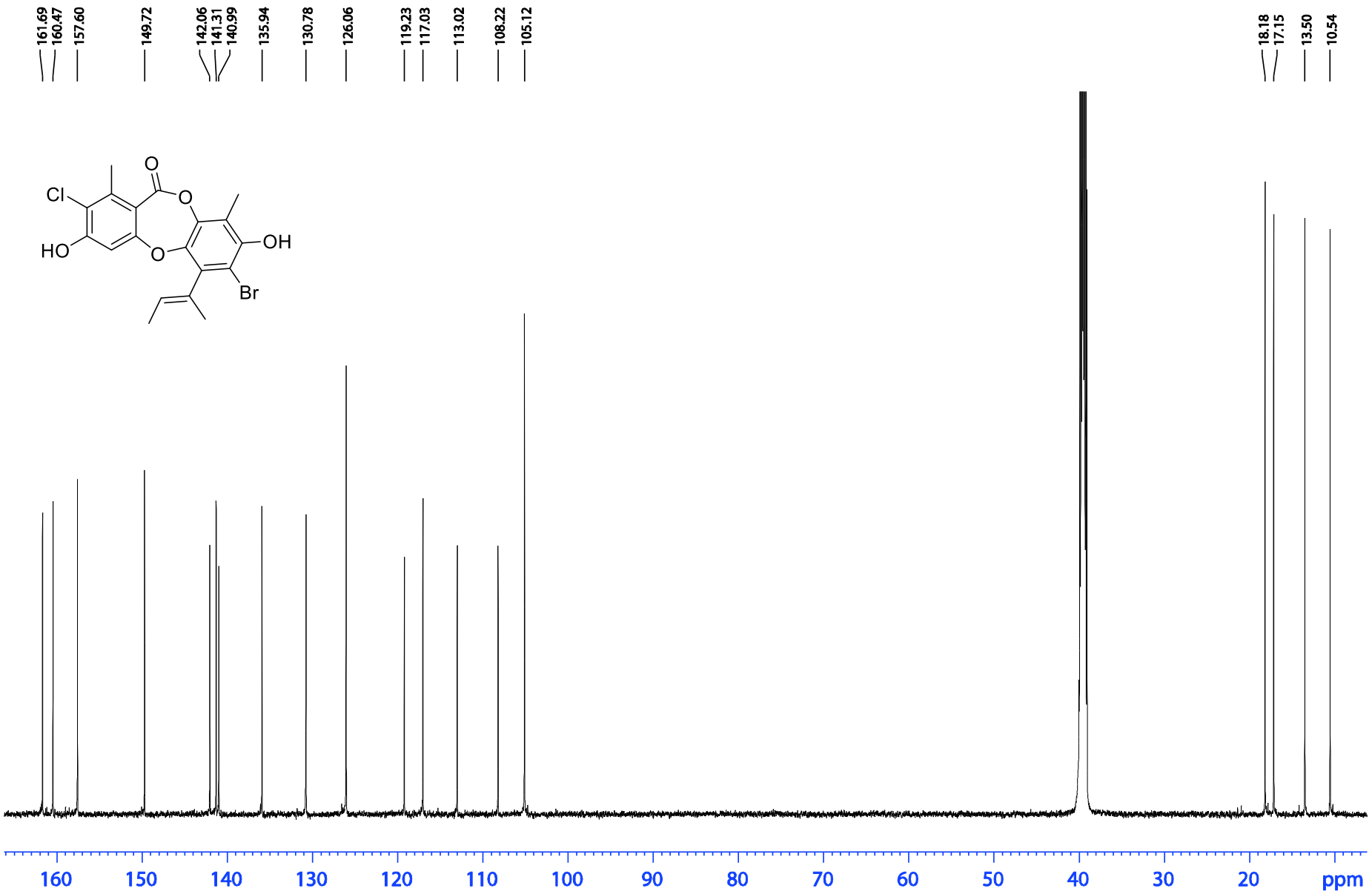


Figure S24. ^{13}C NMR spectrum (150 MHz, DMSO-d_6) of 2-chloro-7-bromounguinol (**4**)

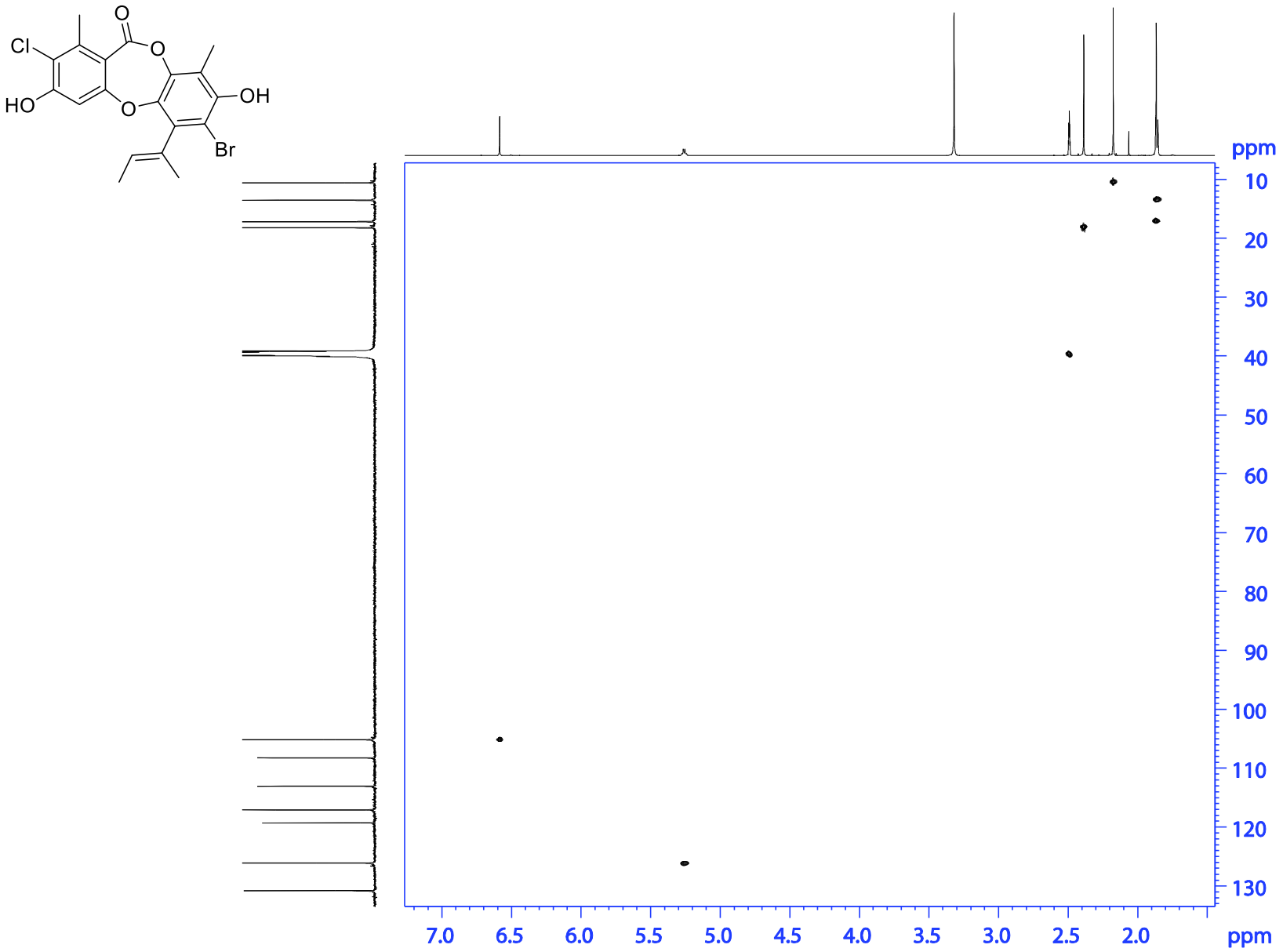


Figure S25. ^{1}H-^{13}C HSQC NMR spectrum (600 MHz, DMSO-d_6) of 2-chloro-7-bromounguinol (**4**)

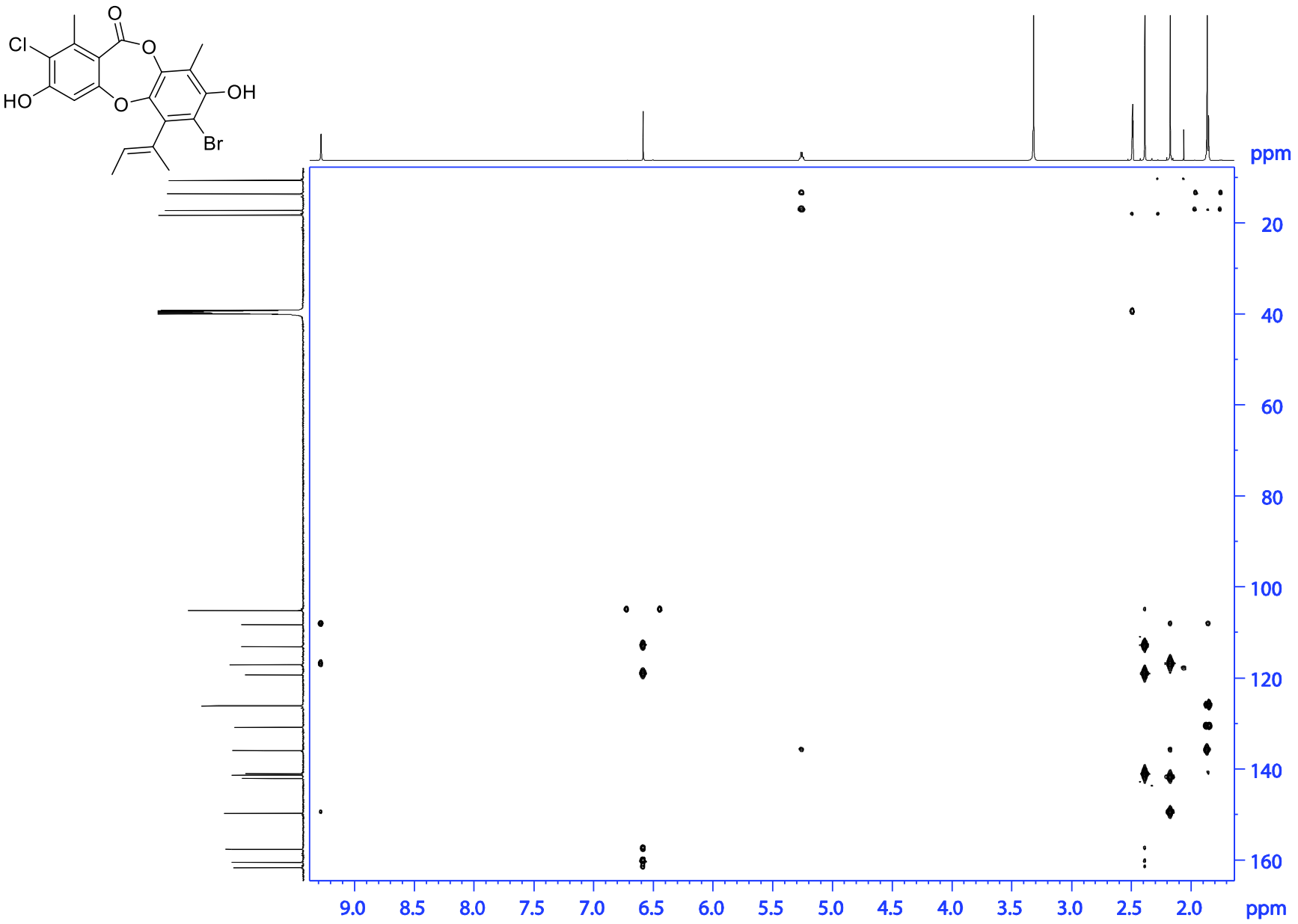


Figure S26. ^{1}H-^{13}C HMBC NMR spectrum (600 MHz, DMSO-d_6) of 2-chloro-7-bromounguinol (**4**)

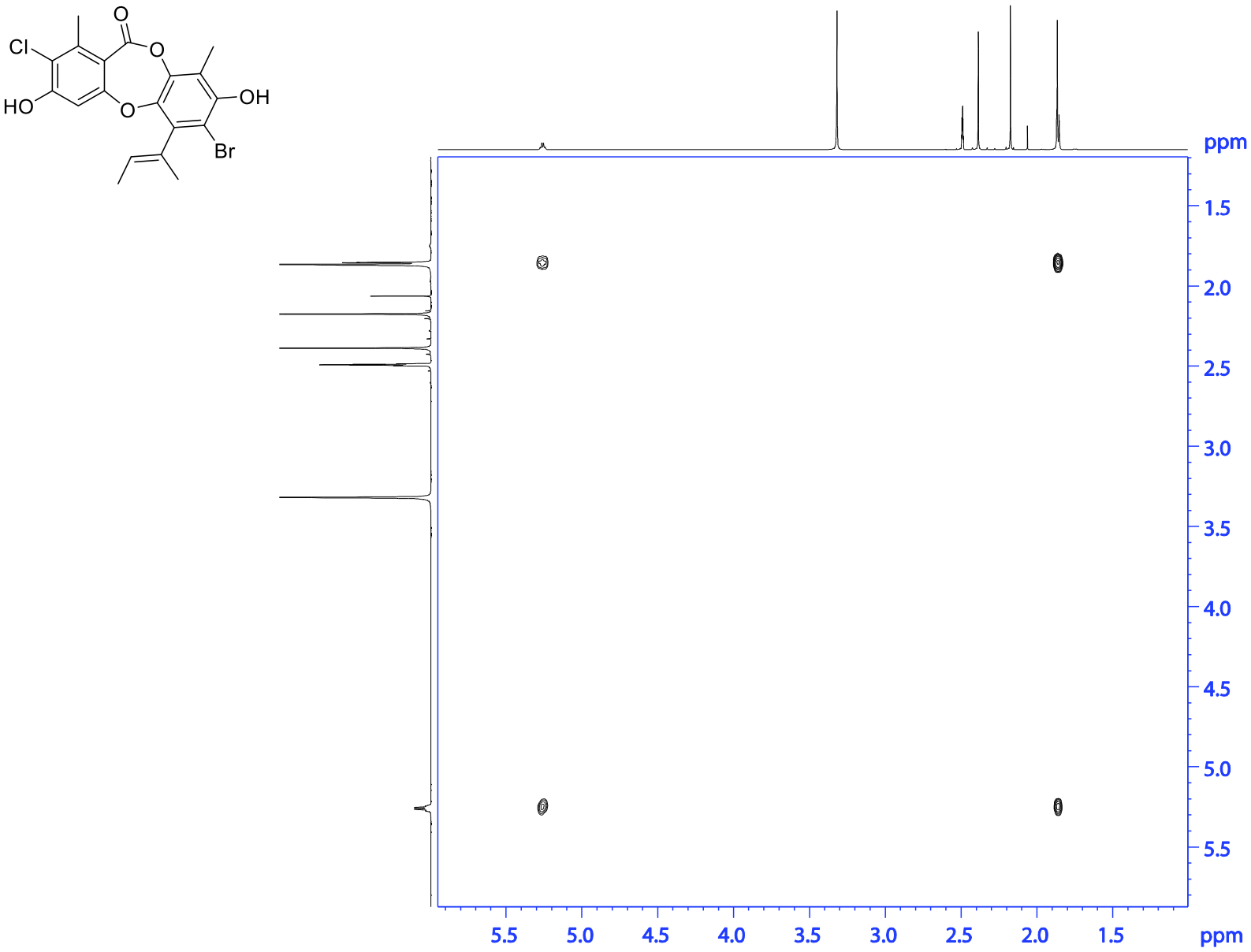


Figure S27. ^{1}H-^{1}H COSY NMR spectrum (600 MHz, DMSO-d_6) of 2-chloro-7-bromounguinol (**4**)

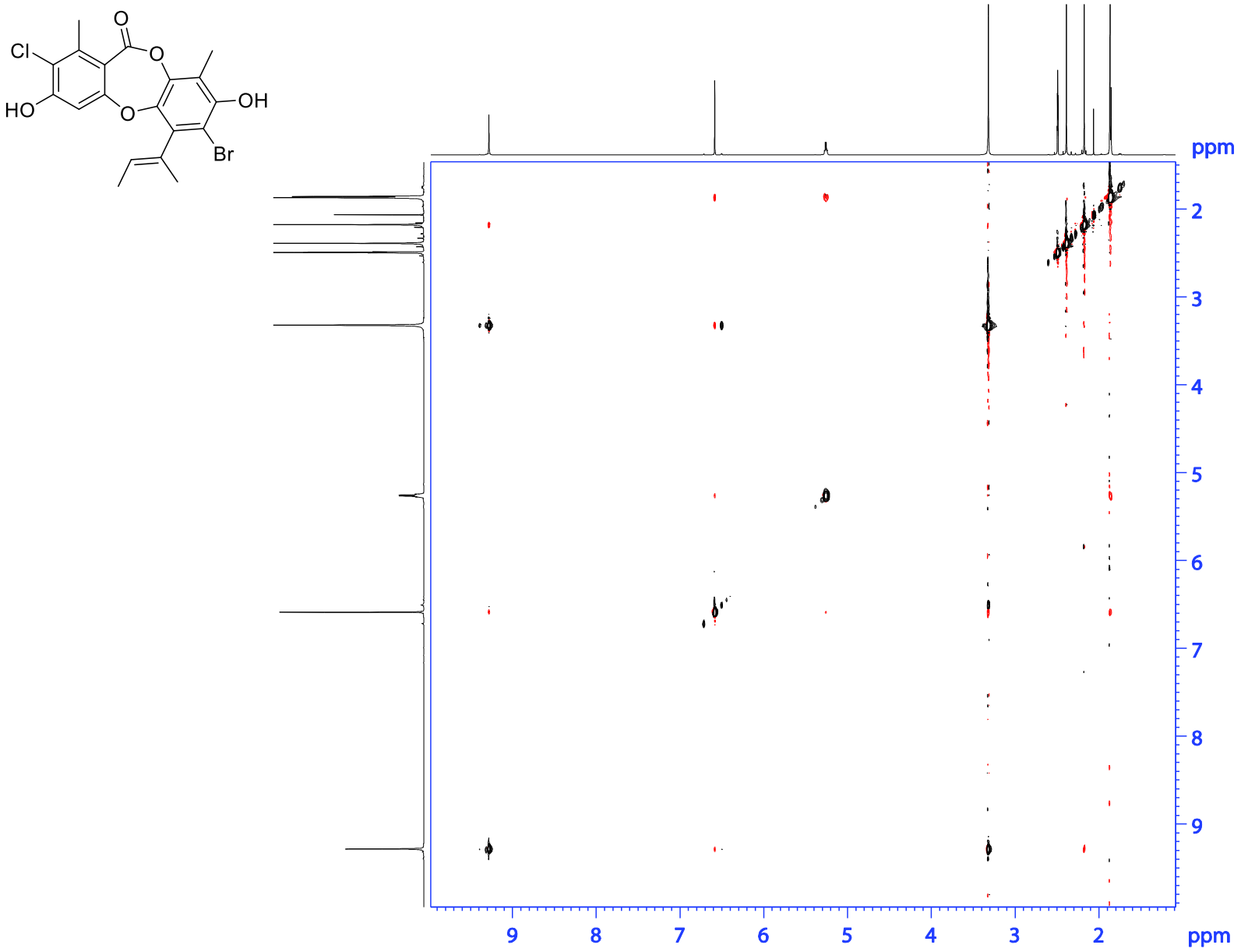


Figure S28. ^{1}H-^{1}H ROESY NMR spectrum (600 MHz, DMSO-d_6) of 2-chloro-7-bromounguinol (**4**)

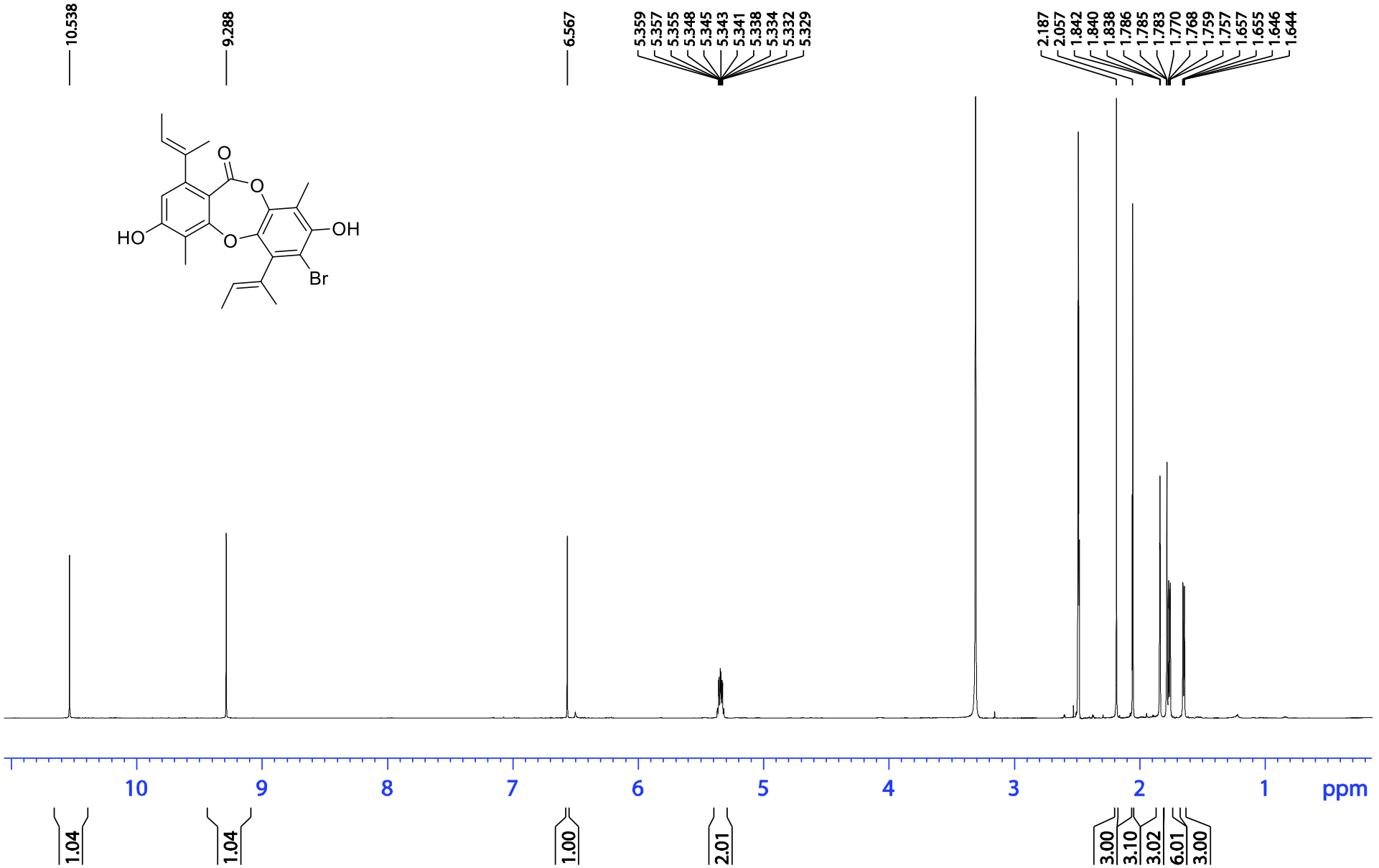


Figure S29. ^{1}H NMR spectrum (600 MHz, DMSO-d_6) of 7-bromofolipastatin (**5**)

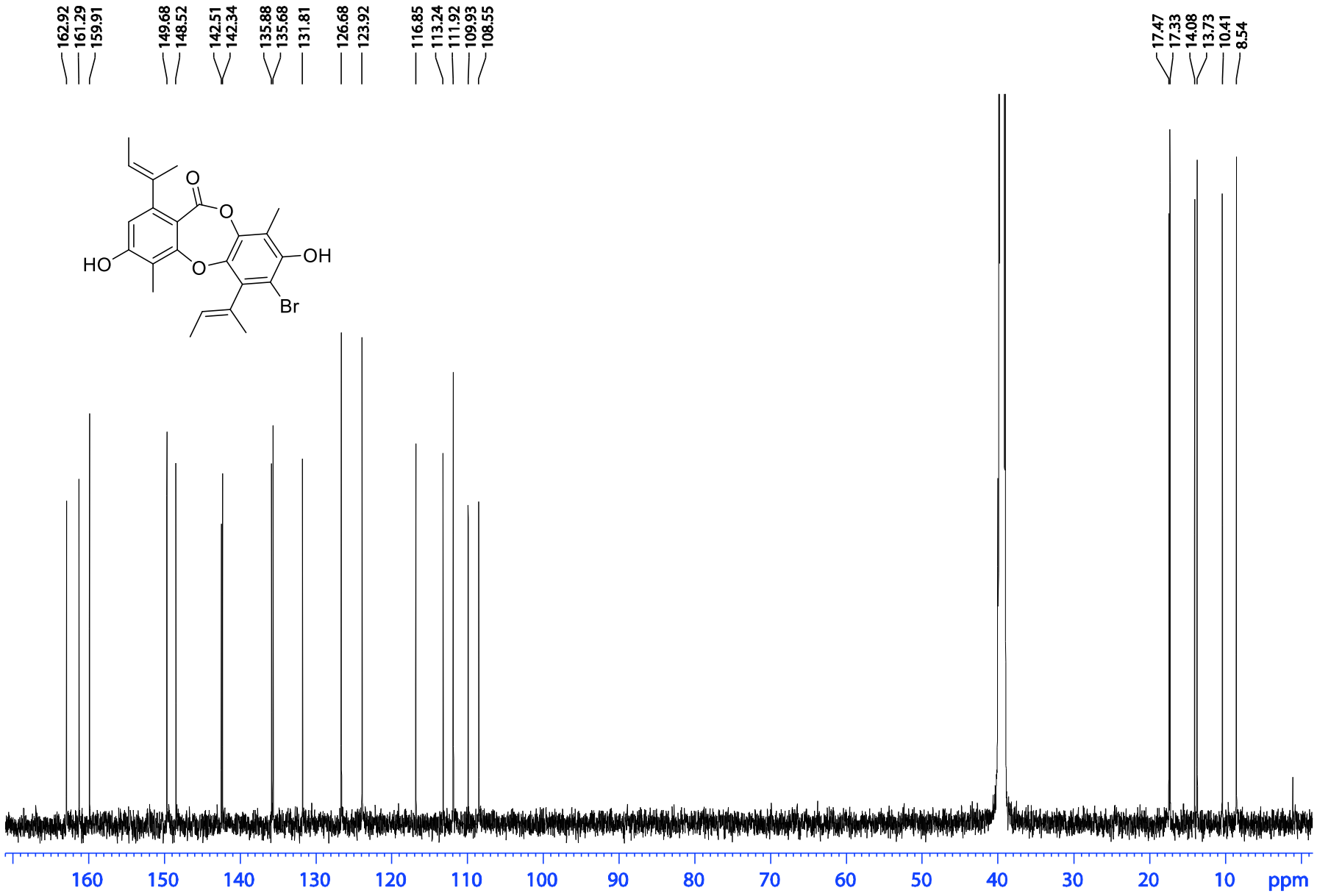


Figure S30. ^{13}C NMR spectrum (150 MHz, DMSO-d_6) of 7-bromofolipastatin (**5**)

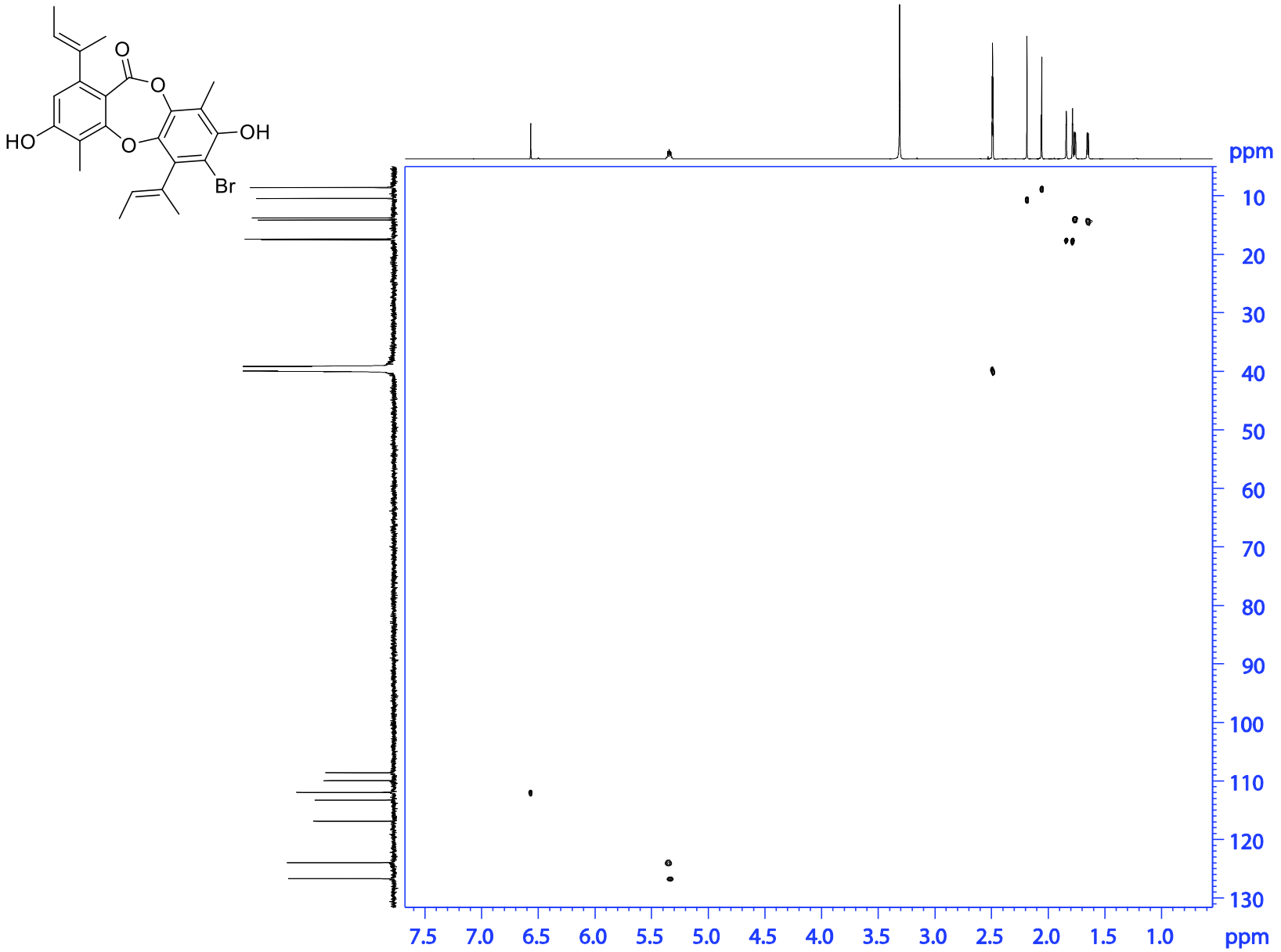


Figure S31. ^{1}H-^{13}C HSQC NMR spectrum (600 MHz, DMSO-d_6) of 7-bromofolipastatin (**5**)

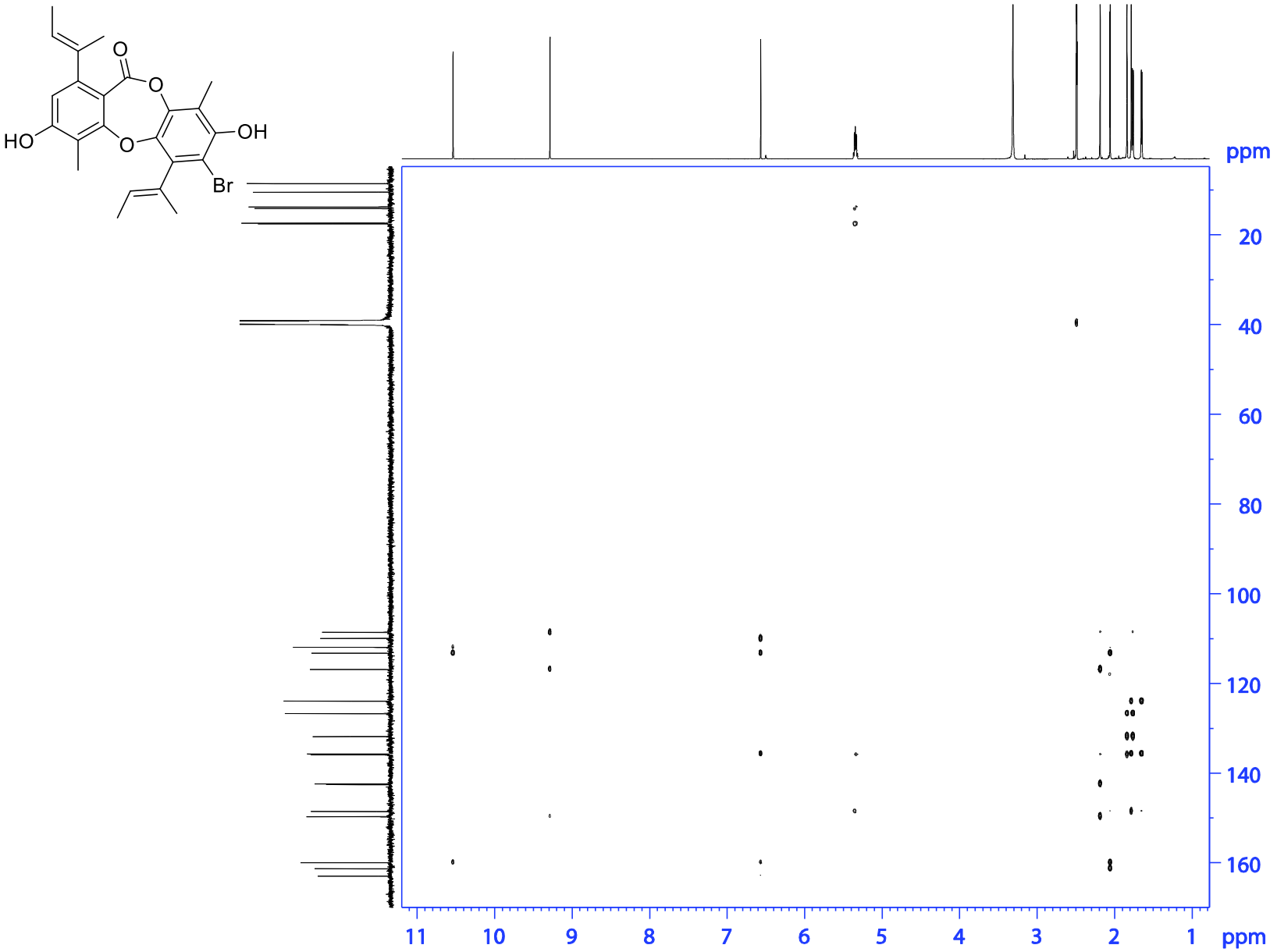


Figure S32. ^{1}H-^{13}C HMBC NMR spectrum (600 MHz, DMSO-d_6) of 7-bromofolipastatin (**5**)

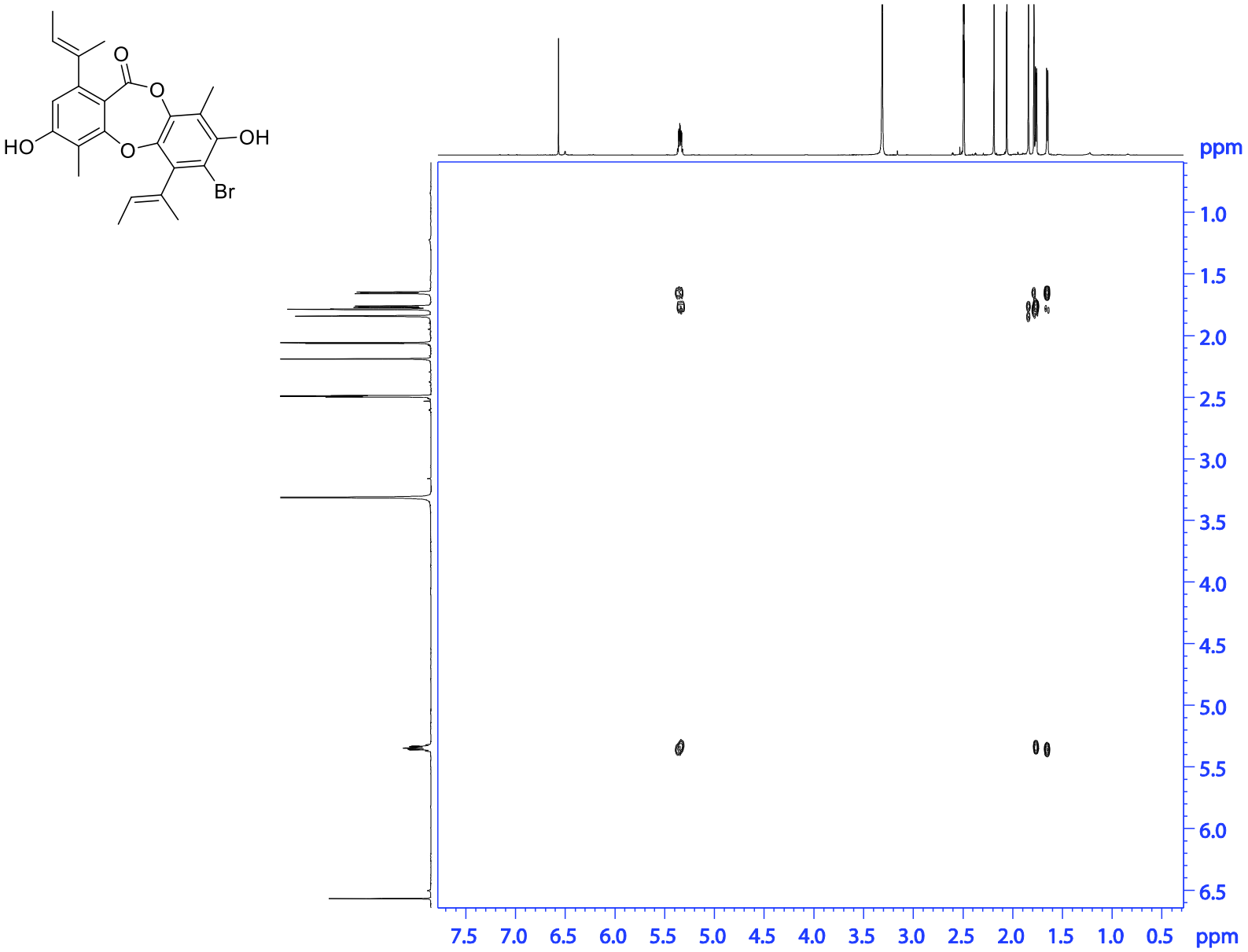


Figure S33. ^{1}H-^{1}H COSY NMR spectrum (600 MHz, DMSO-d_6) of 7-bromofolipastatin (**5**)

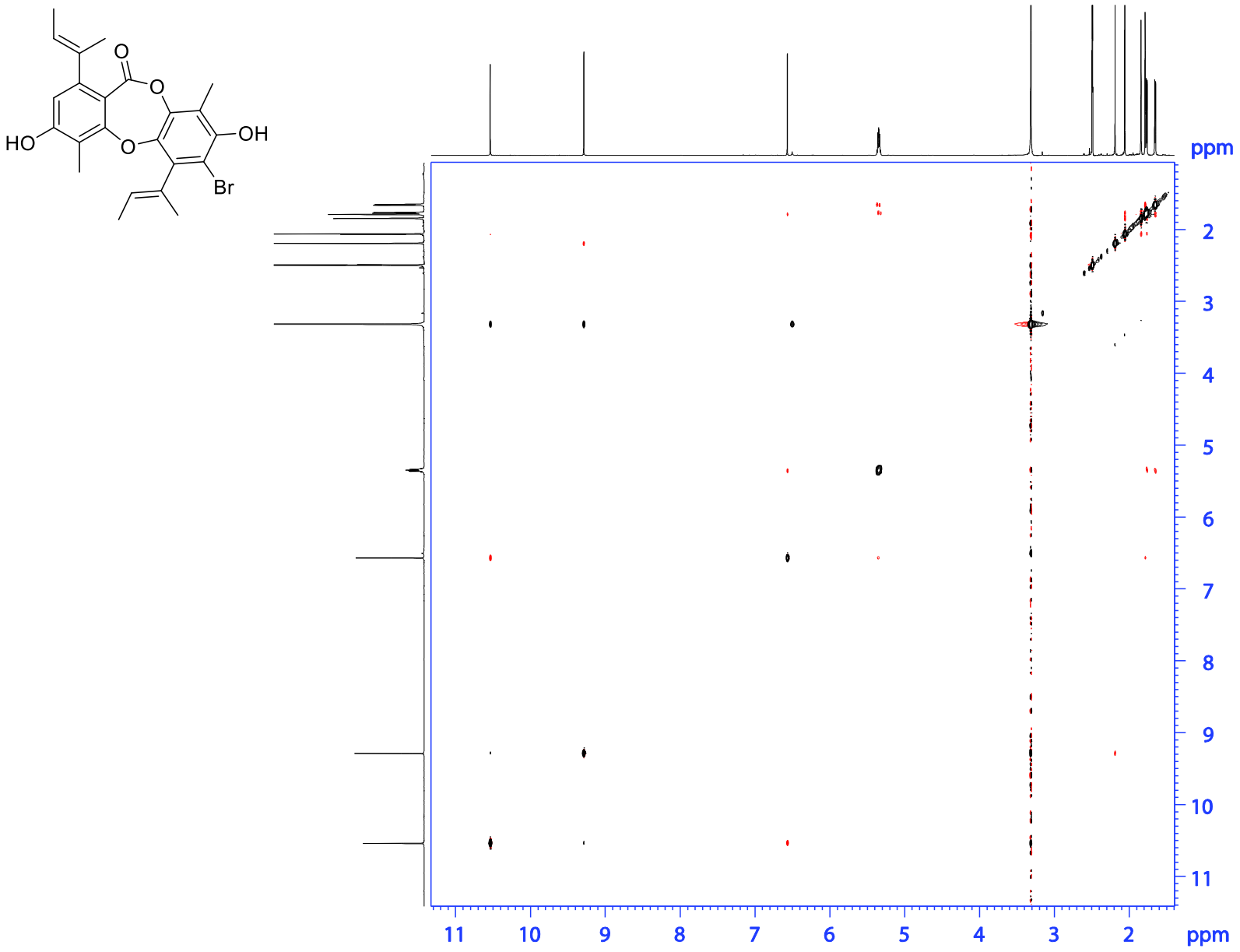


Figure S34. ^{1}H-^{1}H ROESY NMR spectrum (600 MHz, DMSO-d_6) of 7-bromofolipastatin (**5**)

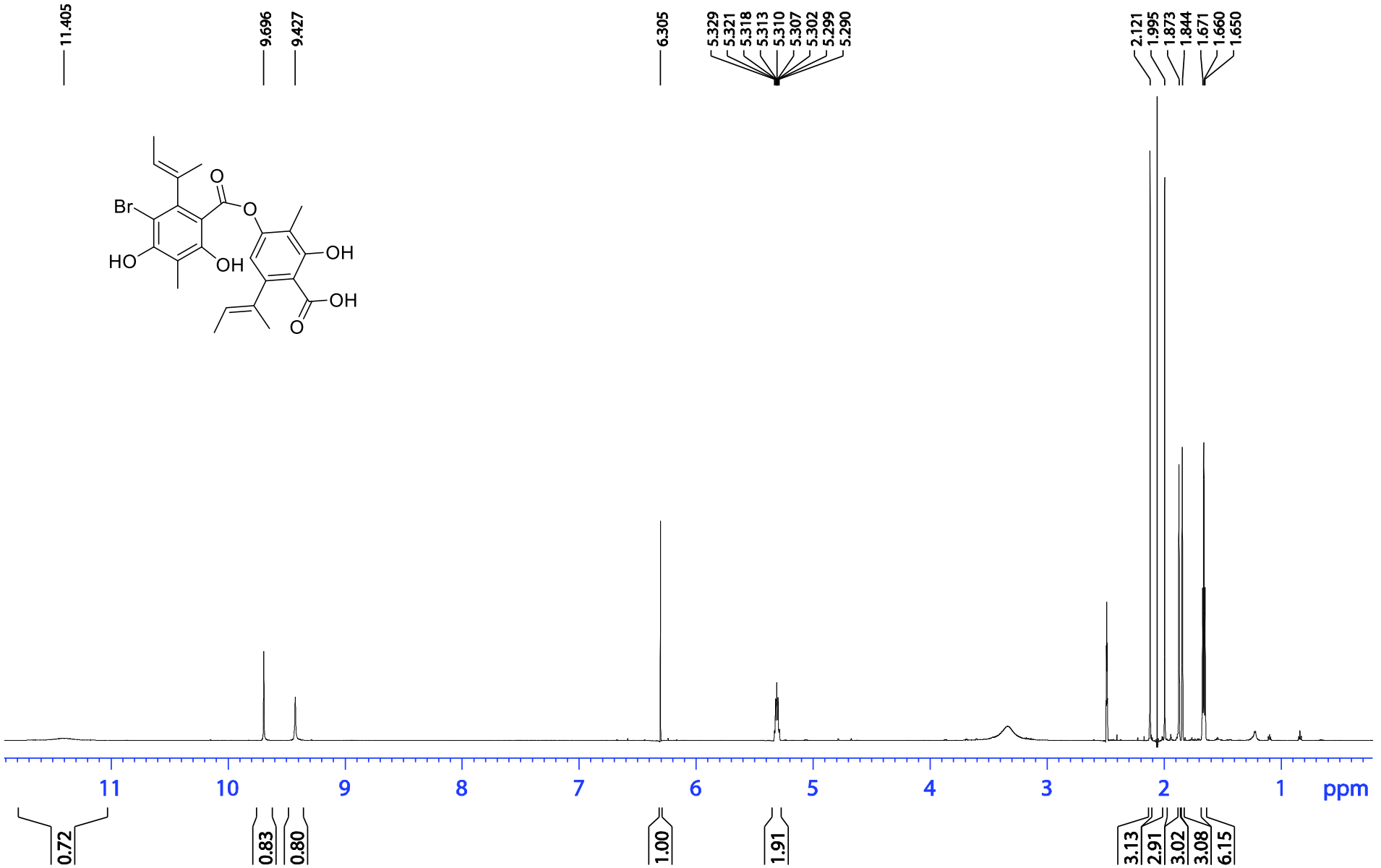


Figure S35. ^{1}H NMR spectrum (600 MHz, DMSO-d_6) of 5-bromoagonodepside B (**6**)

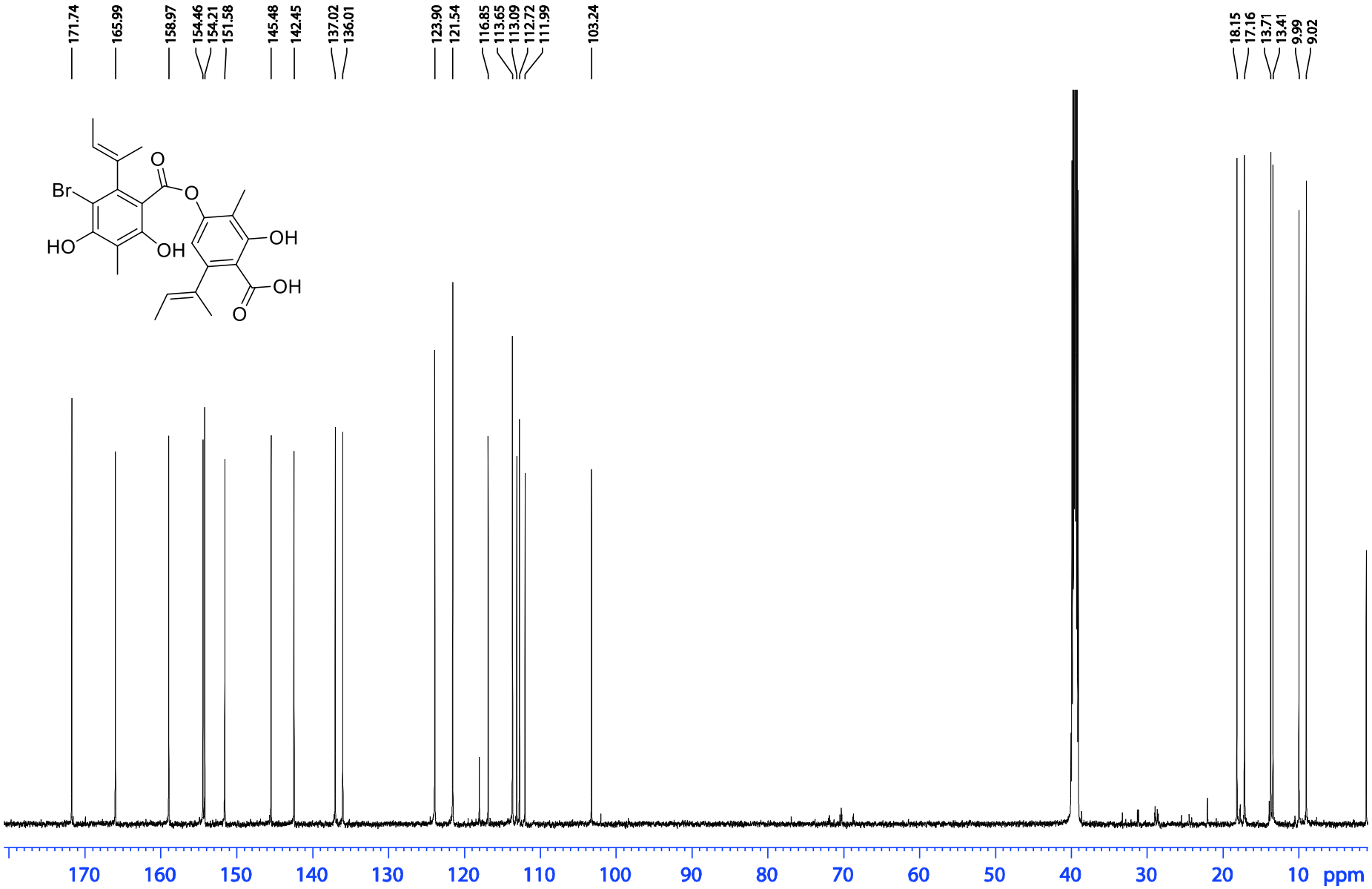


Figure S36. ^{13}C NMR spectrum (150 MHz, DMSO-d_6) of 5-bromoagonodepside B (**6**)

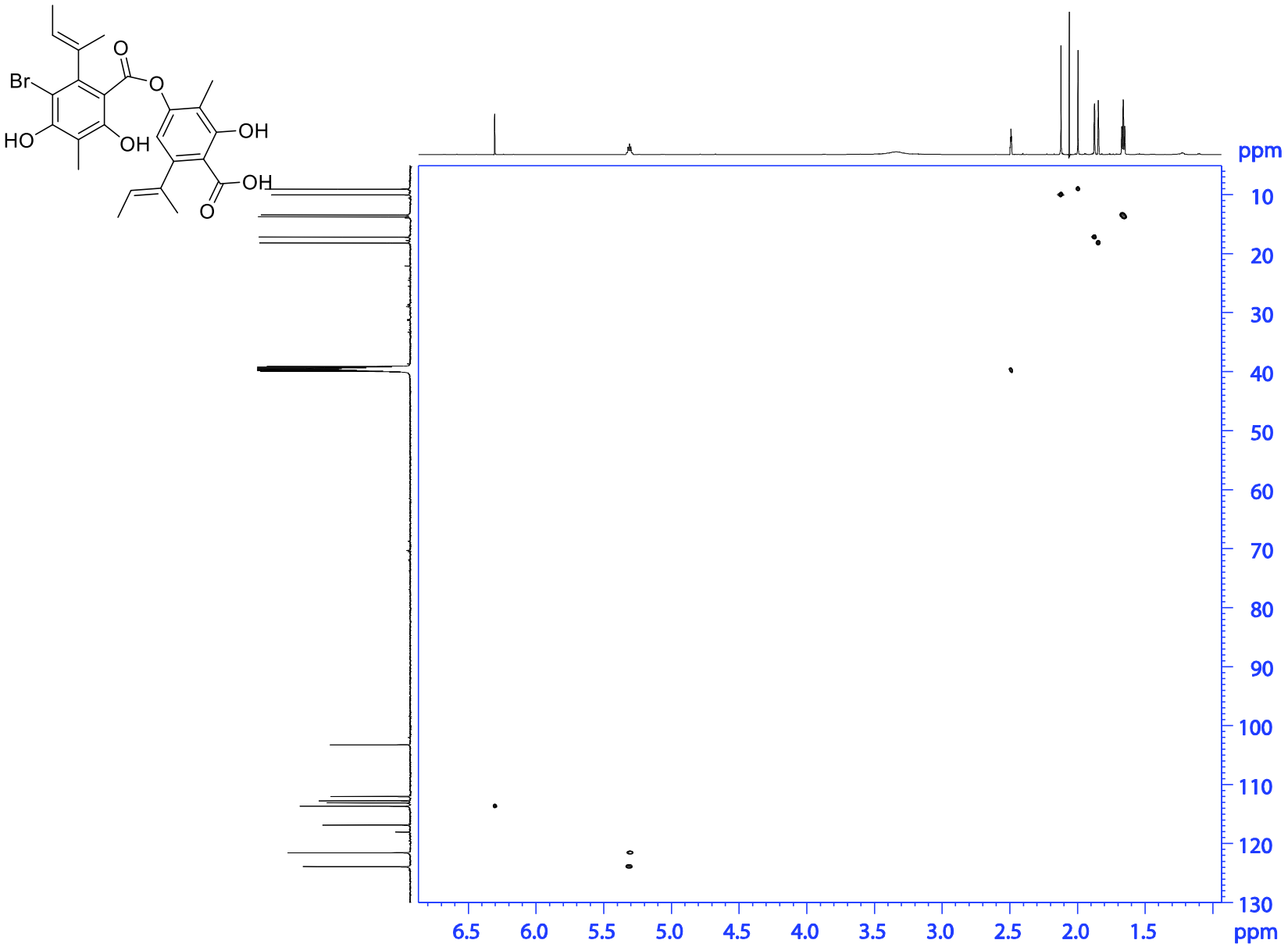


Figure S37. ^{1}H-^{13}C HSQC NMR spectrum (600 MHz, DMSO-d_6) of 5-bromoagonodepside B (**6**)

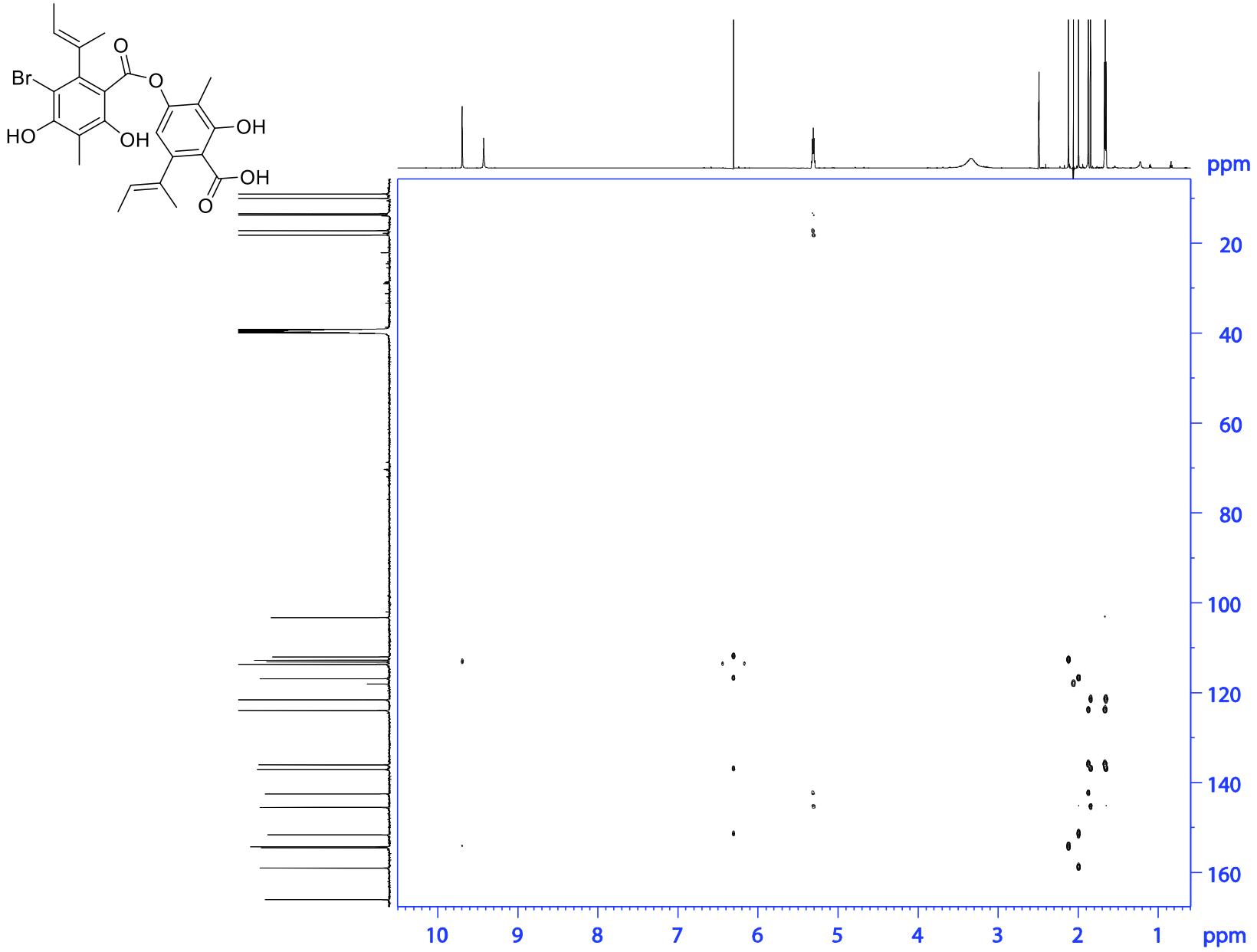


Figure S38. ^{1}H-^{13}C HMBC NMR spectrum (600 MHz, DMSO-d_6) of 5-bromoagonodepside B (**6**)

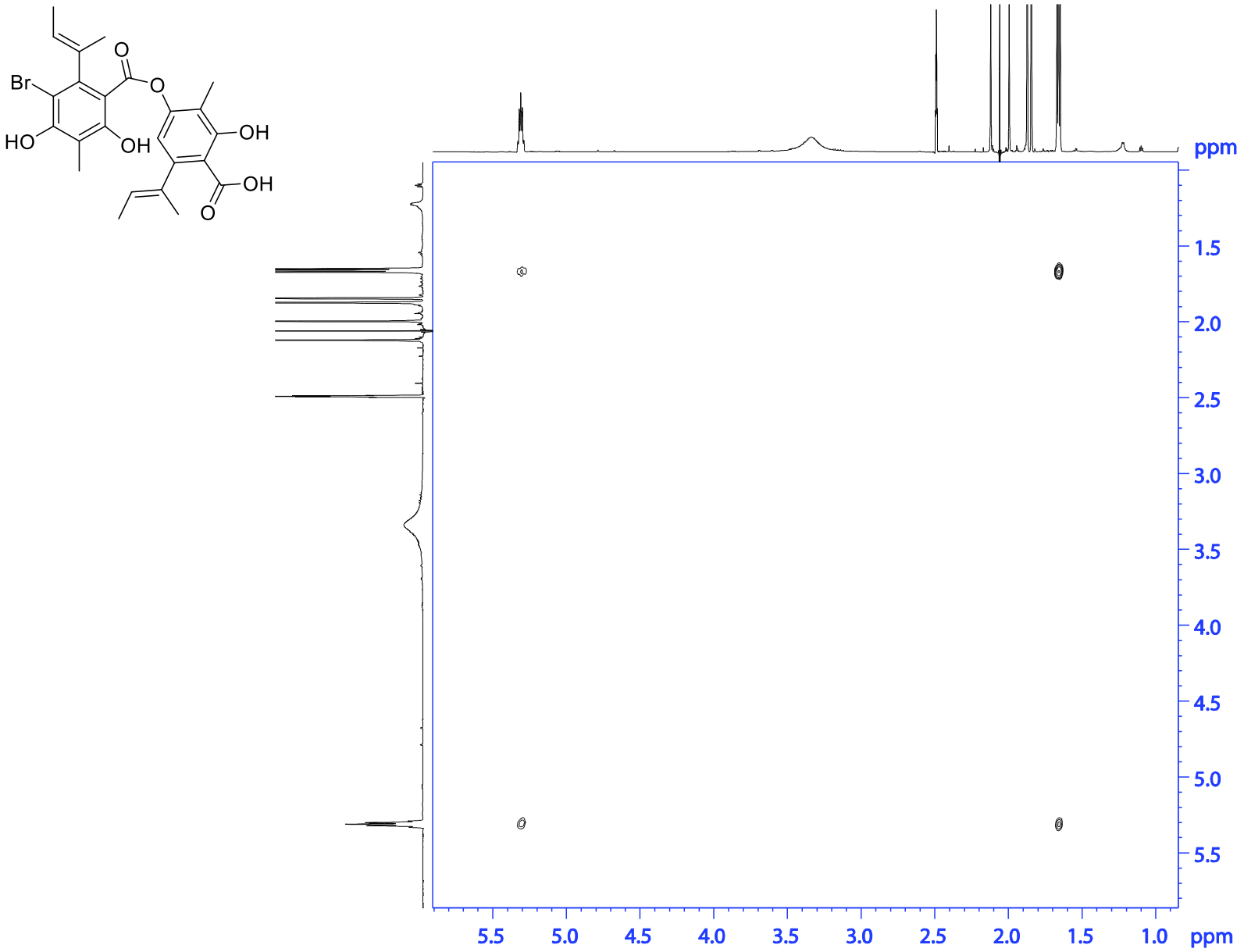


Figure S39. ^{1}H-^{1}H COSY NMR spectrum (600 MHz, DMSO-d_6) of 5-bromoagonodepside B (**6**)

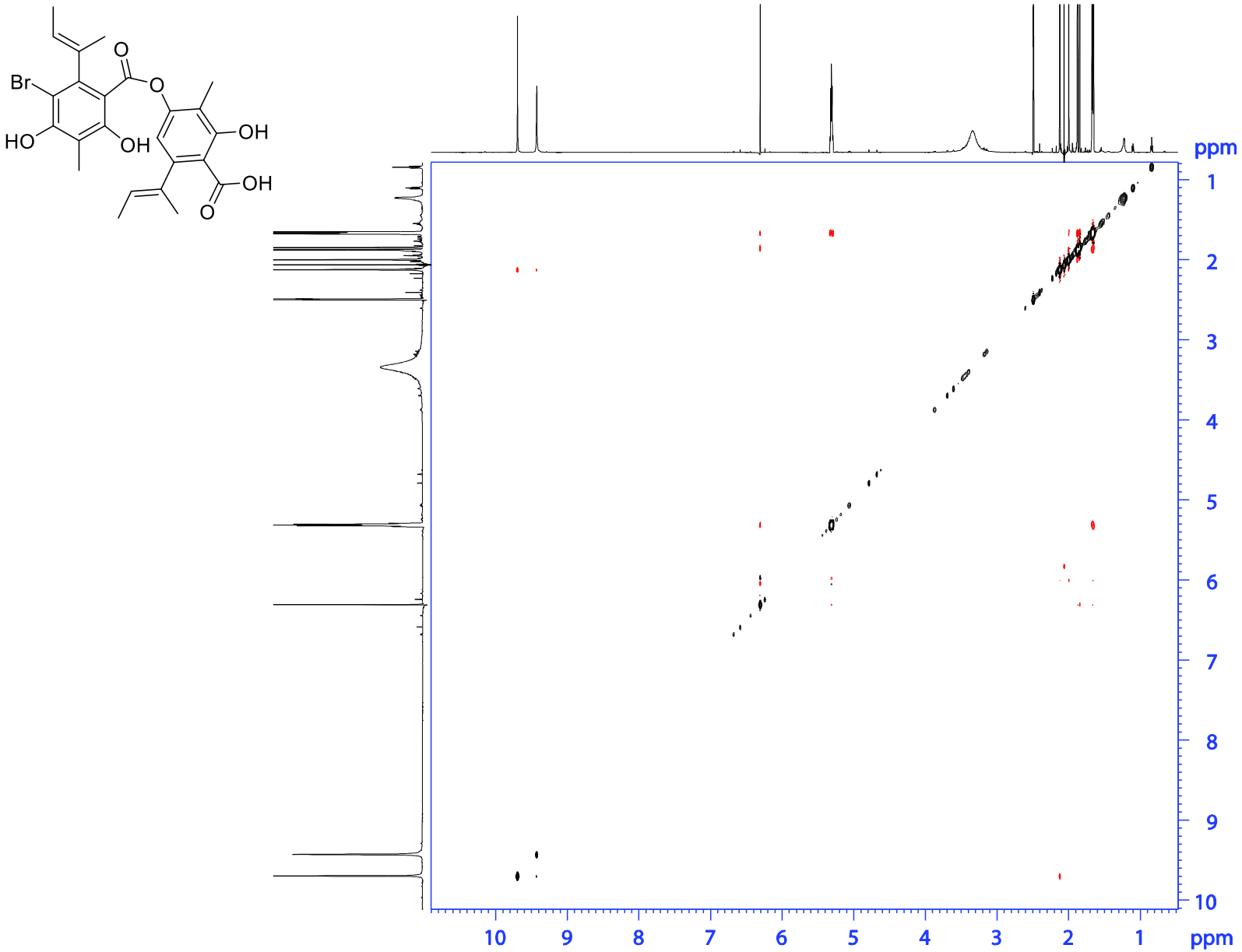


Figure S40. ^{1}H-^{1}H ROESY NMR spectrum (600 MHz, DMSO-d_6) of 5-bromoagonodepside B (**6**)

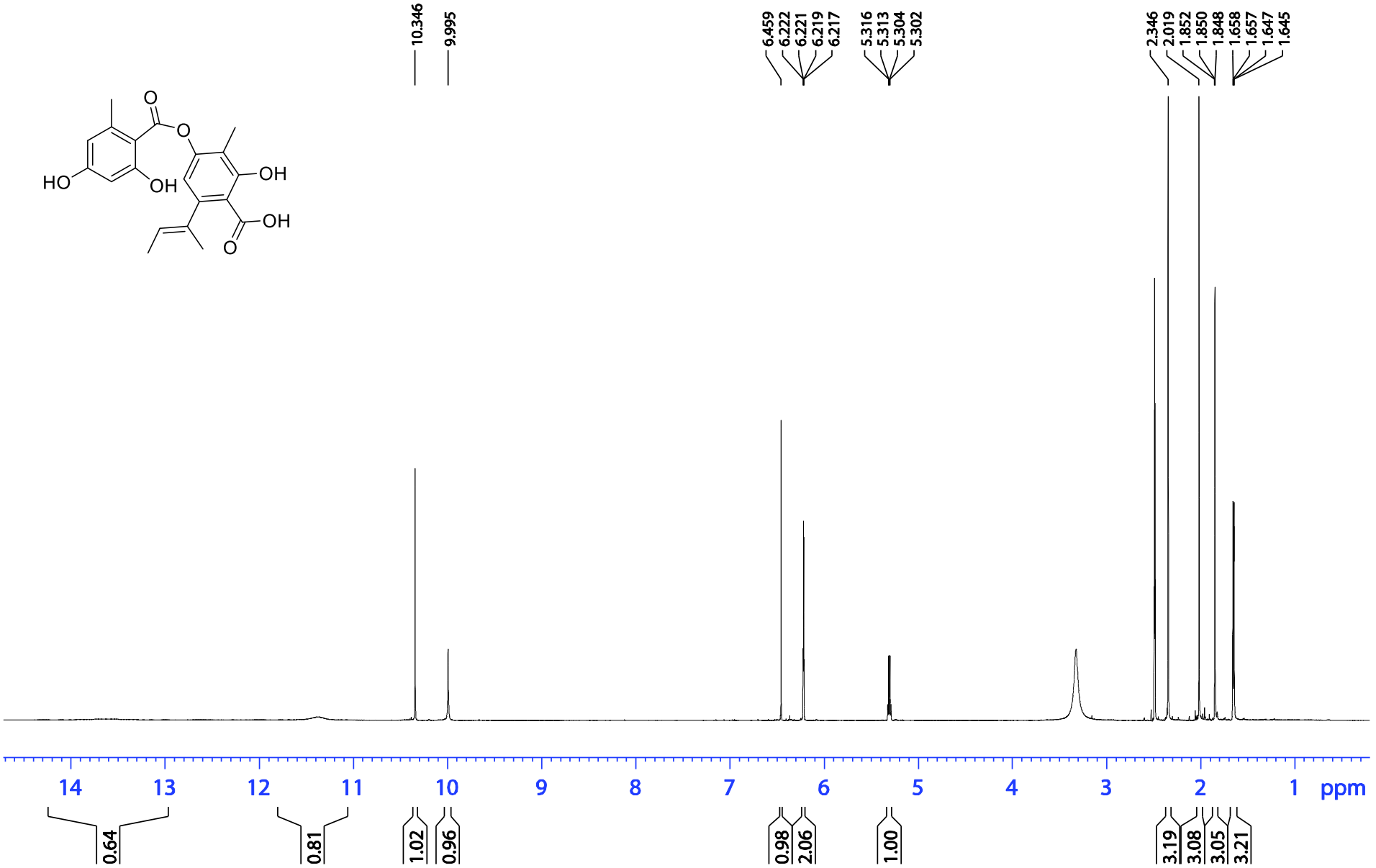


Figure S41. ^{1}H NMR spectrum (600 MHz, DMSO-d_6) of unguidepside A (**7**)

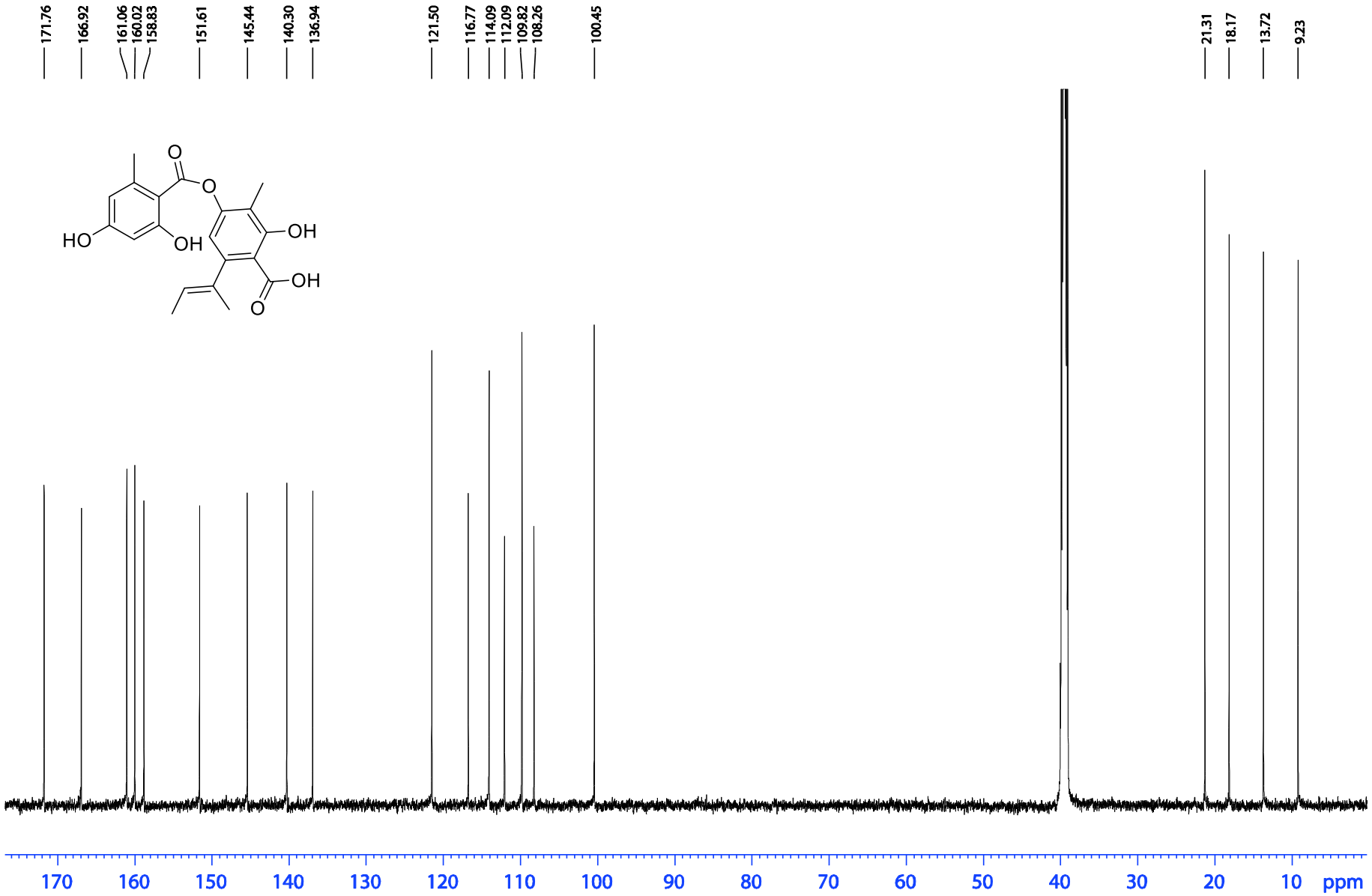


Figure S42. ^{13}C NMR spectrum (150 MHz, DMSO-d_6) of unguidepside A (**7**)

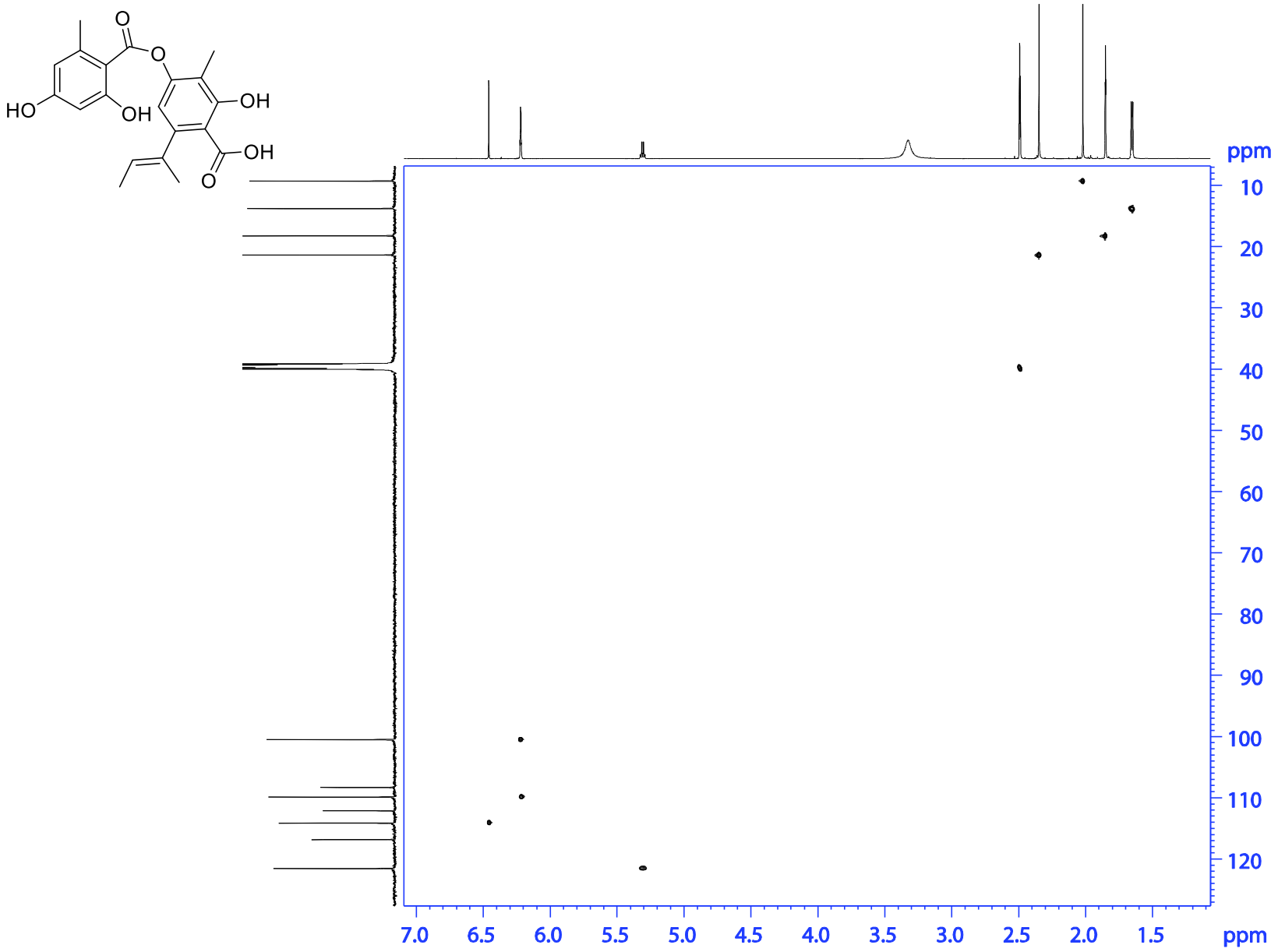


Figure S43. ^{1}H-^{13}C HSQC NMR spectrum (600 MHz, DMSO-d_6) of unguidepside A (**7**)

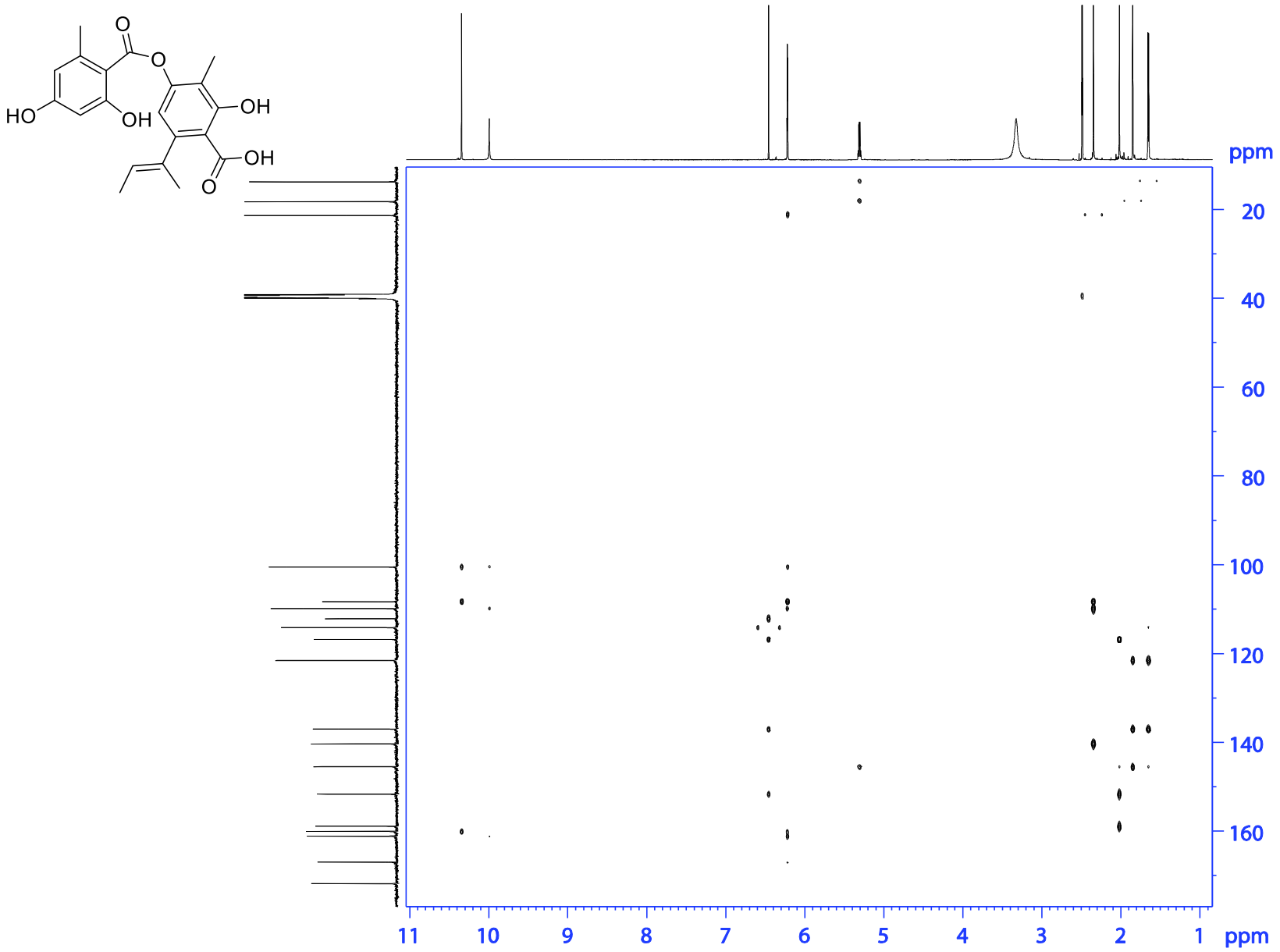


Figure S44. ^{1}H-^{13}C HMBC NMR spectrum (600 MHz, DMSO-d_6) of unguidepside A (**7**)

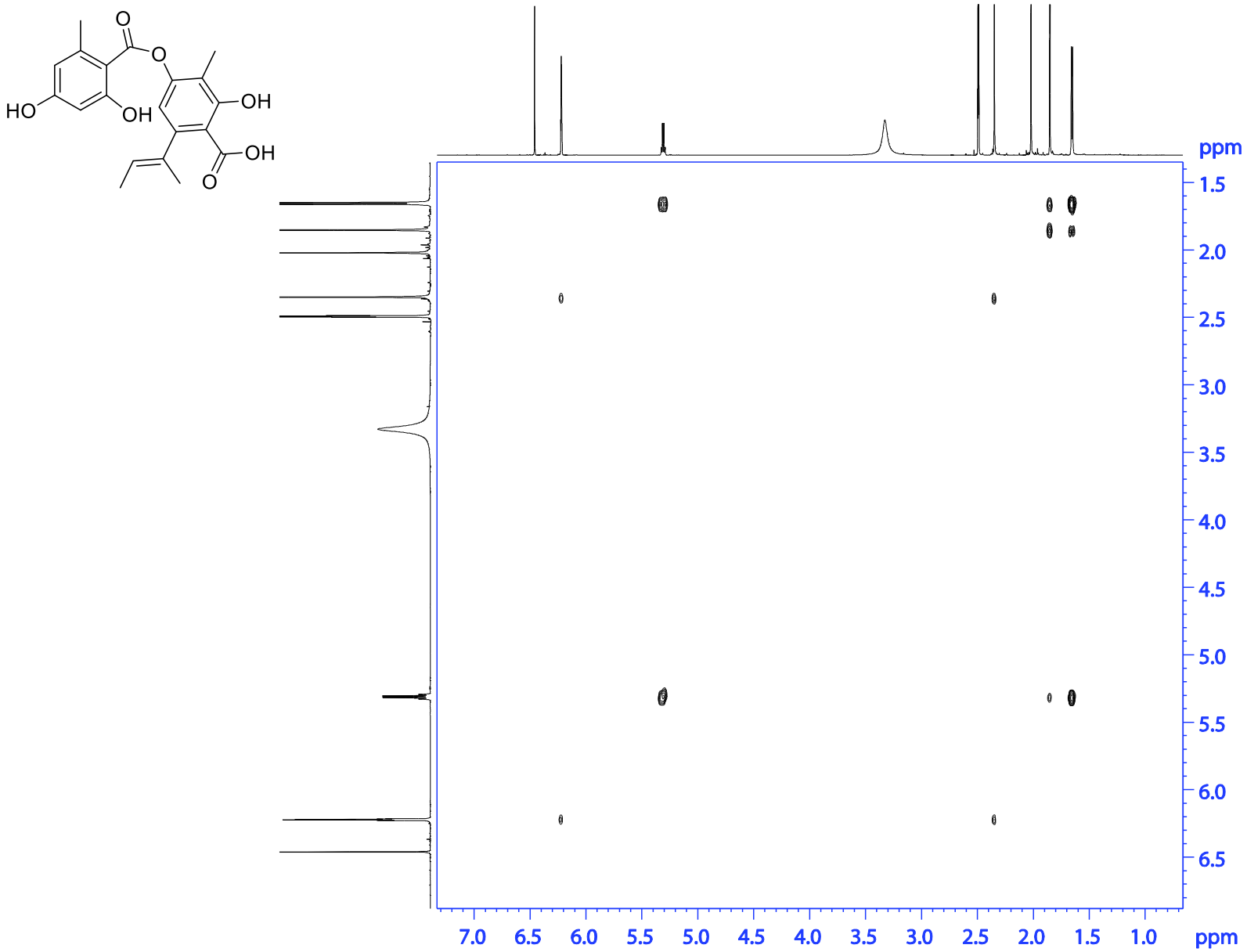


Figure S45. ^{1}H-^{1}H COSY NMR spectrum (600 MHz, DMSO-d_6) of unguidepside A (**7**)

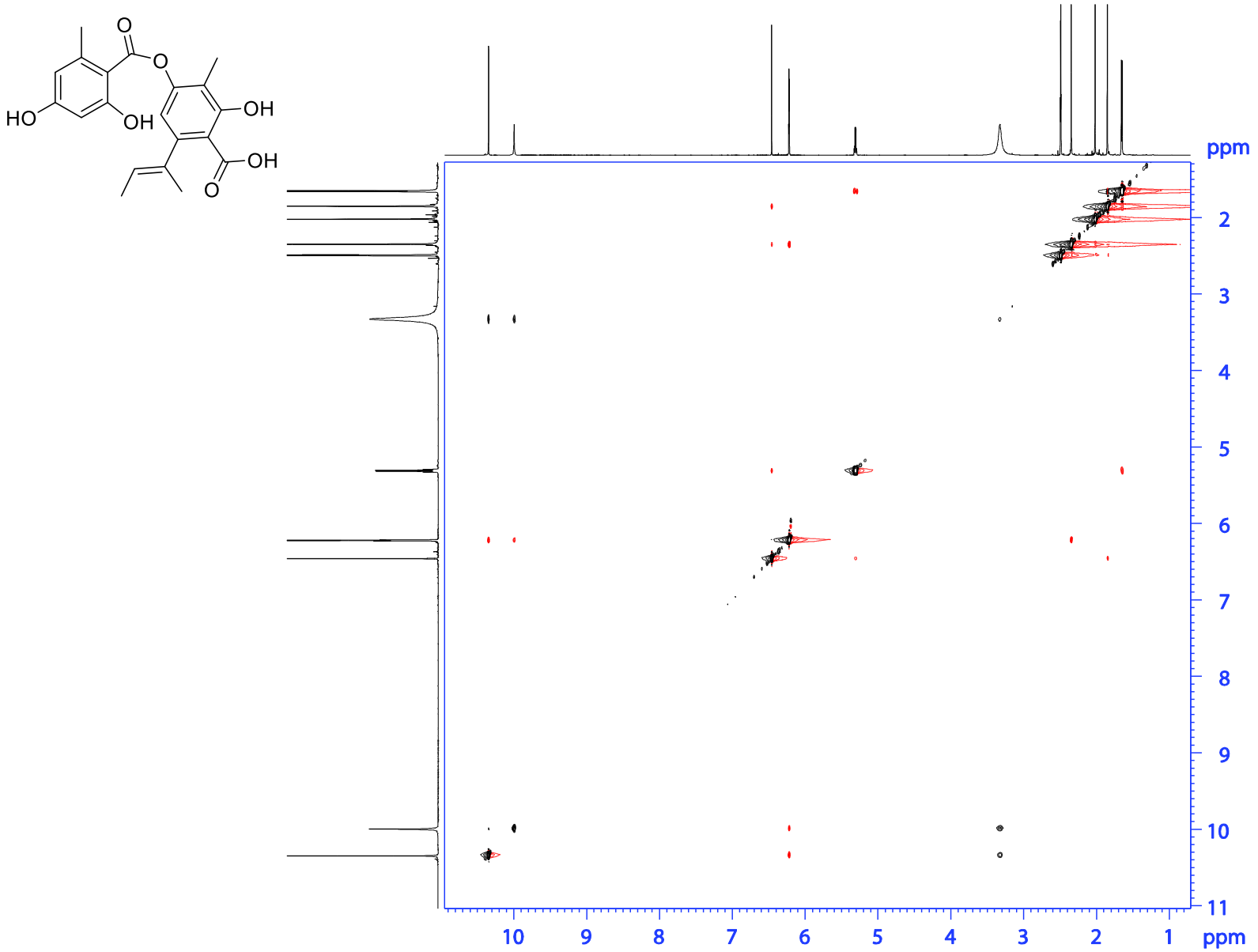


Figure S46. ^{1}H-^{1}H ROESY NMR spectrum (600 MHz, DMSO-d_6) of unguidepside A (**7**)

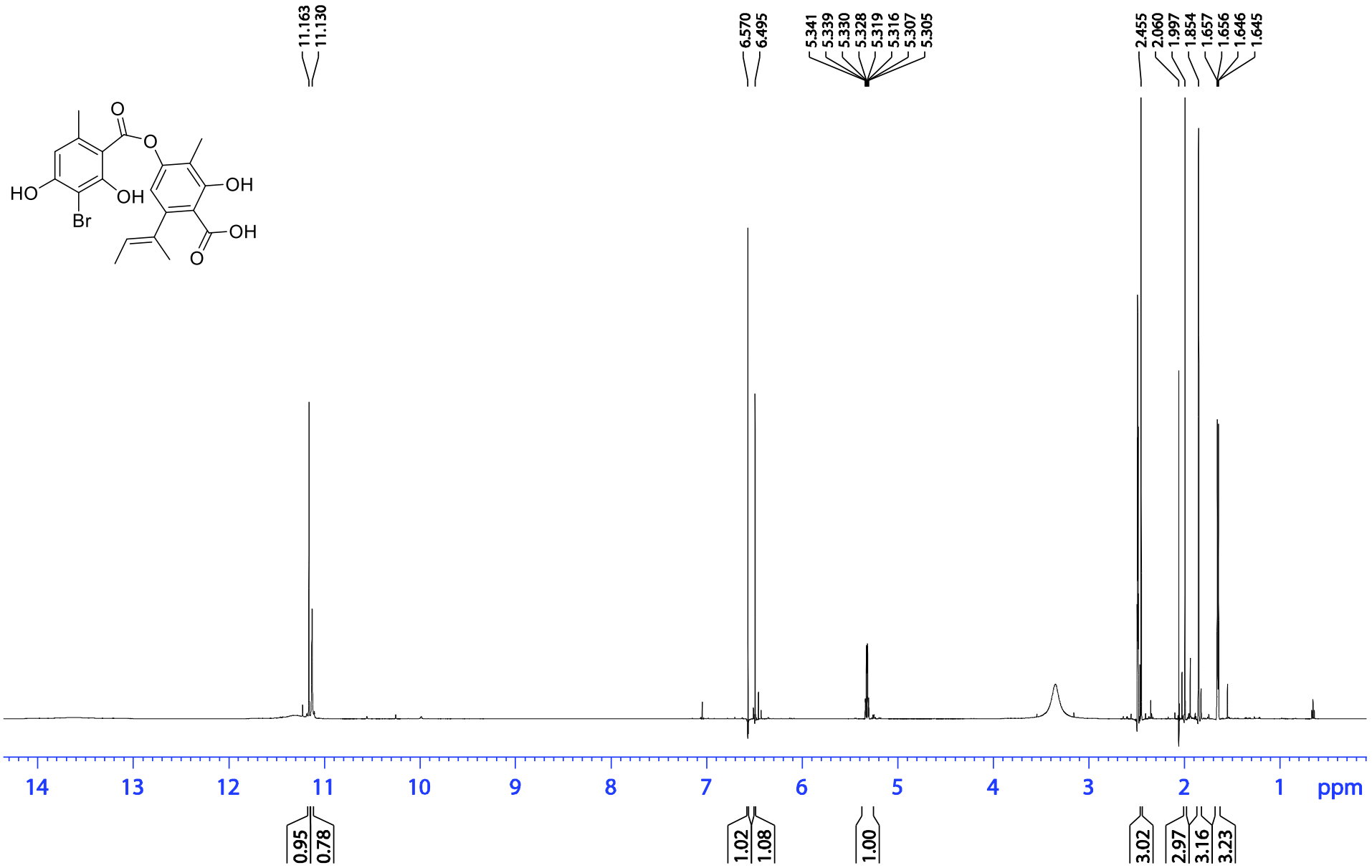


Figure S47. ^{1}H NMR spectrum (600 MHz, DMSO-d_6) of 3-bromounguidepside A (**8**)

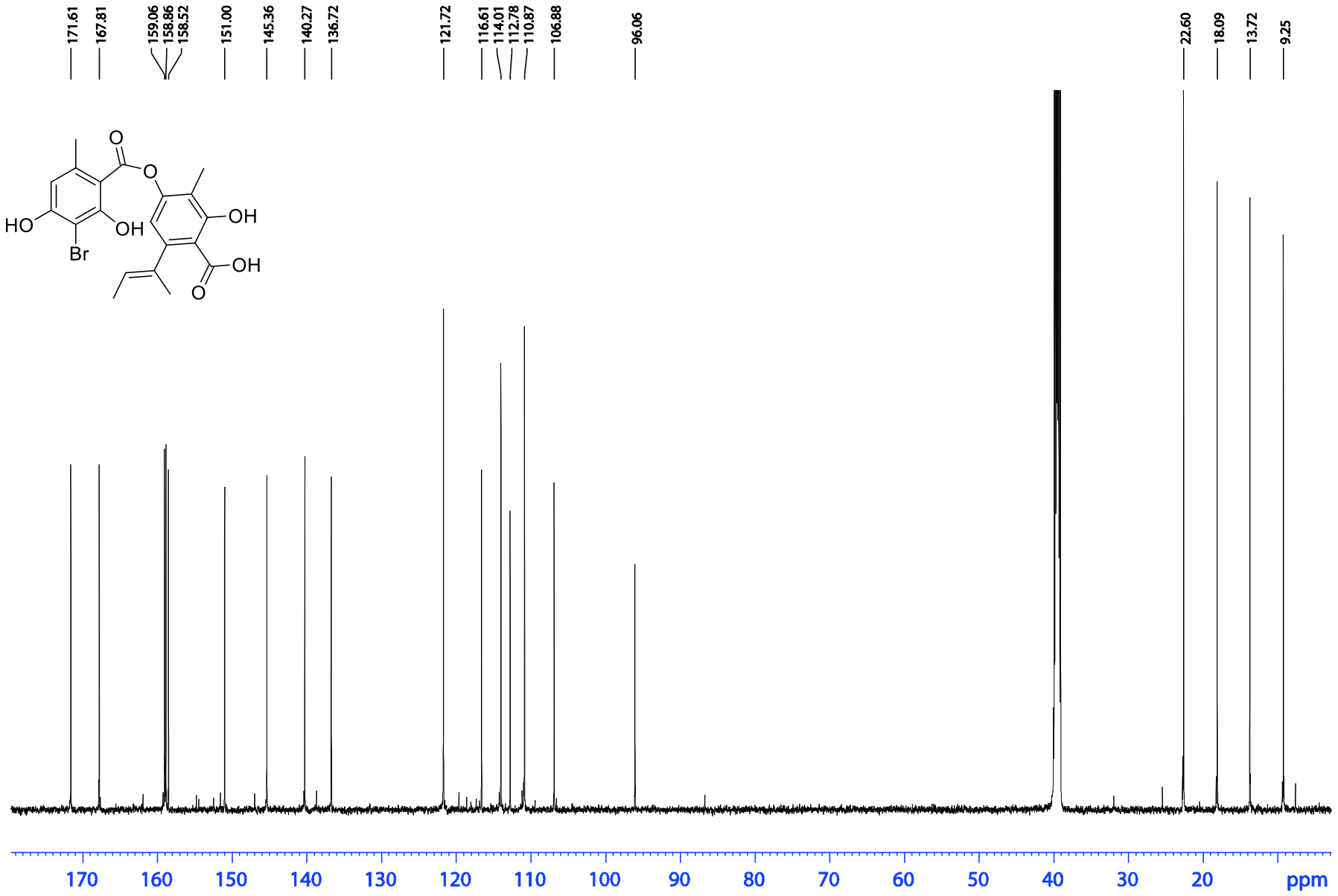


Figure S48. ^{13}C NMR spectrum (150 MHz, DMSO-d_6) of 3-bromounguidepside A (**8**)

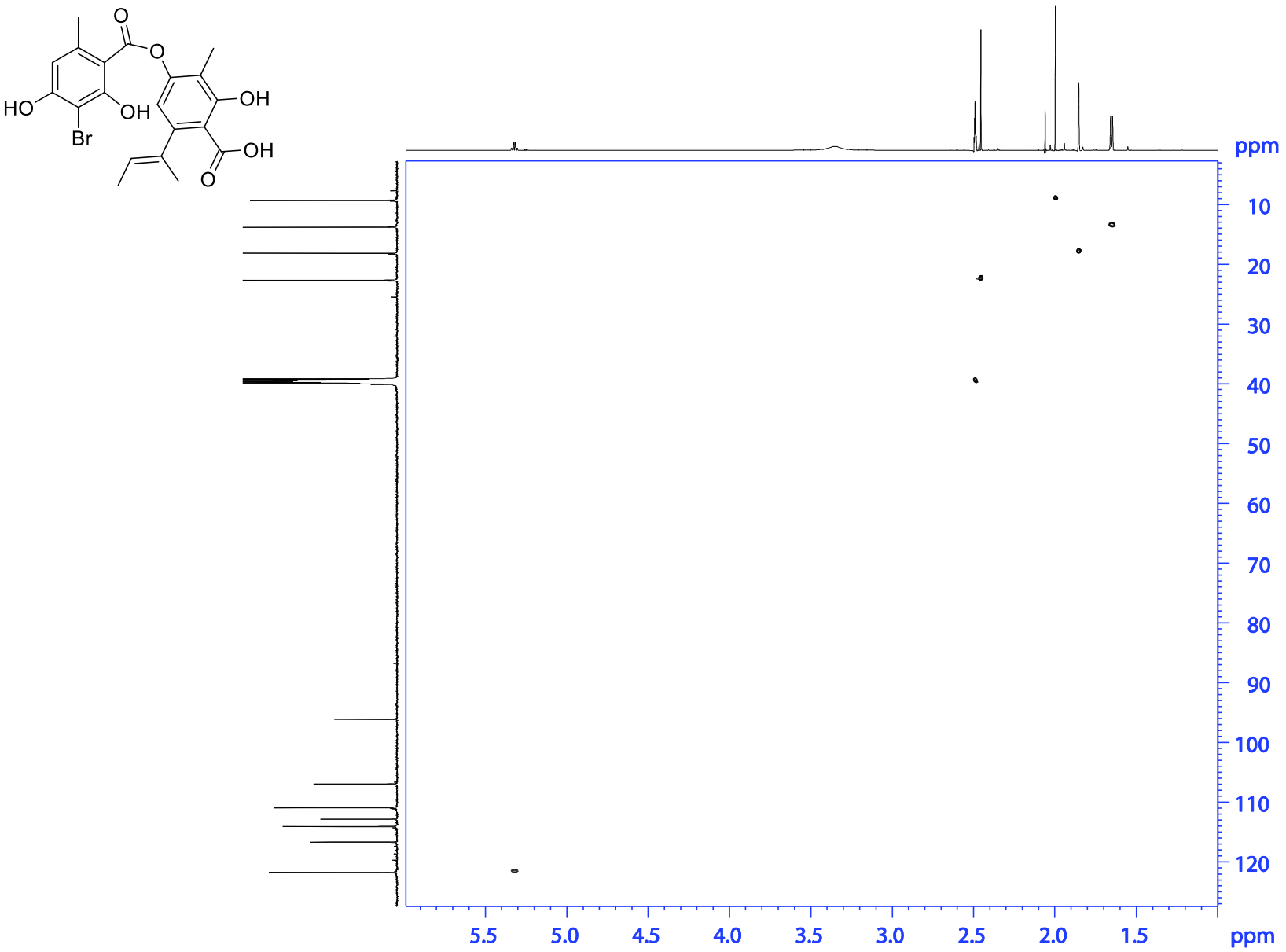


Figure S49. ^{1}H-^{13}C HSQC NMR spectrum (600 MHz, DMSO-d_6) of 3-bromounguidepside A (**8**)

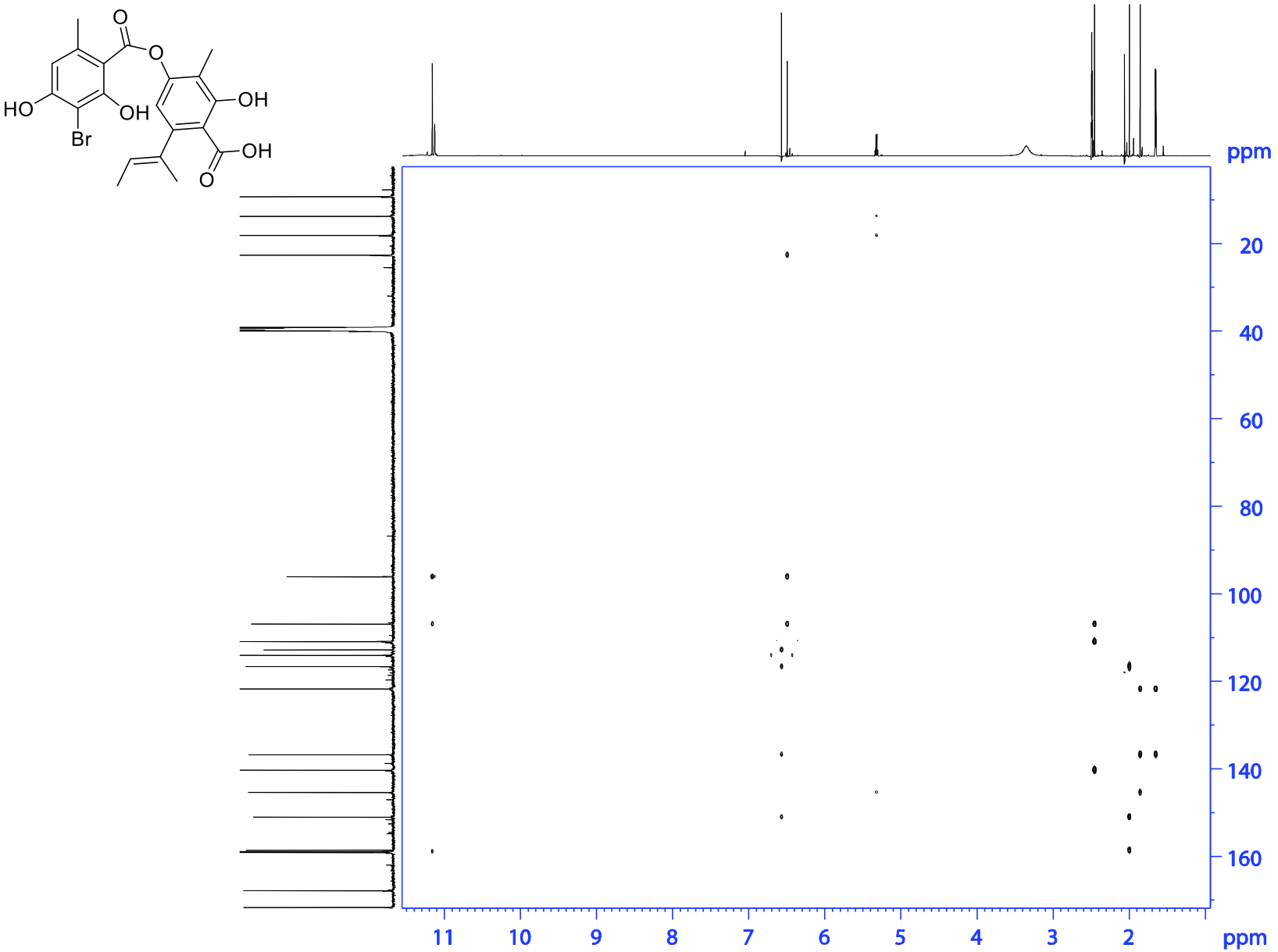


Figure S50. ^{1}H-^{13}C HMBC NMR spectrum (600 MHz, DMSO-d_6) of 3-bromounguidepside A (**8**)

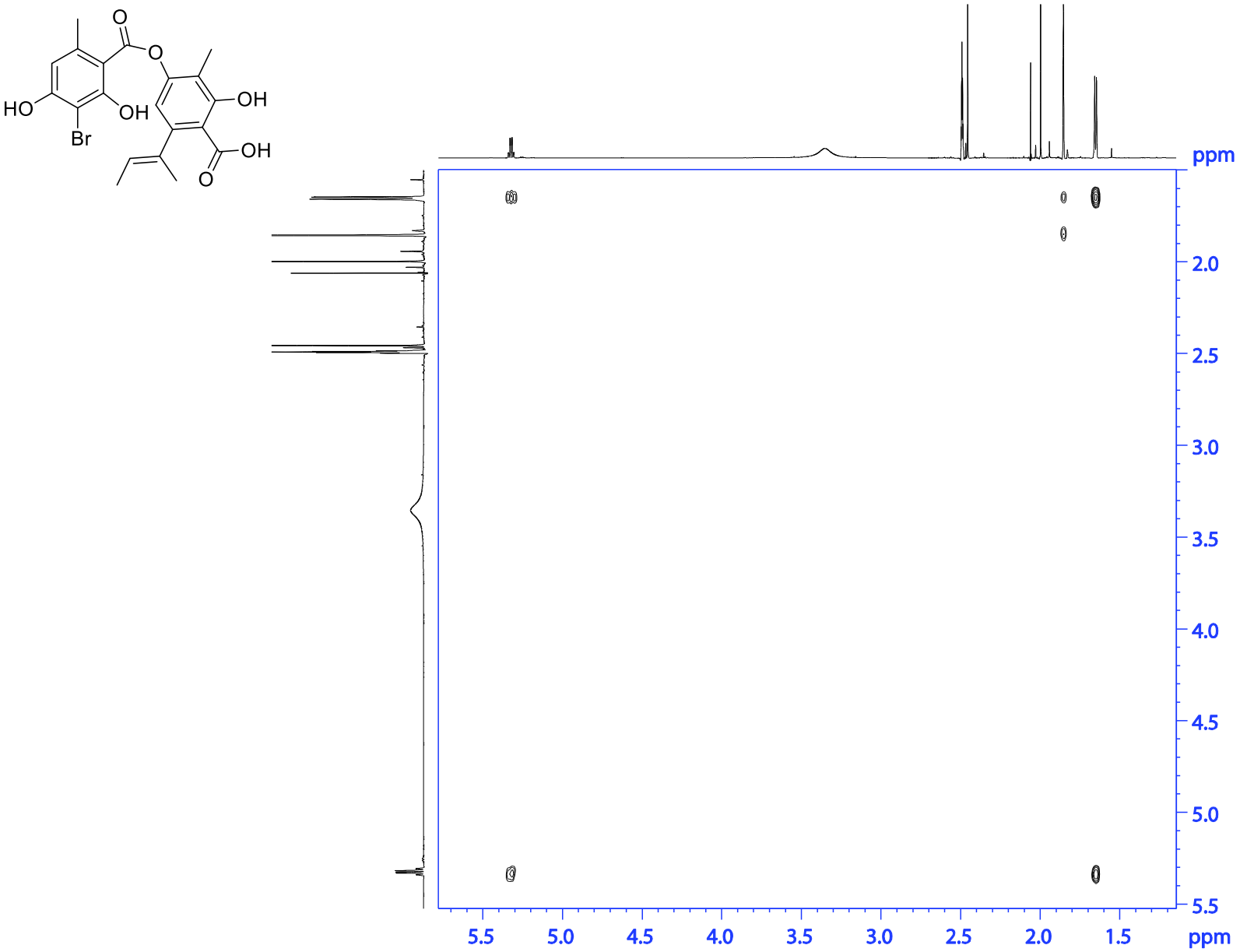


Figure S51. ^{1}H-^{1}H COSY NMR spectrum (600 MHz, DMSO-d_6) of 3-bromounguidepside A (**8**)

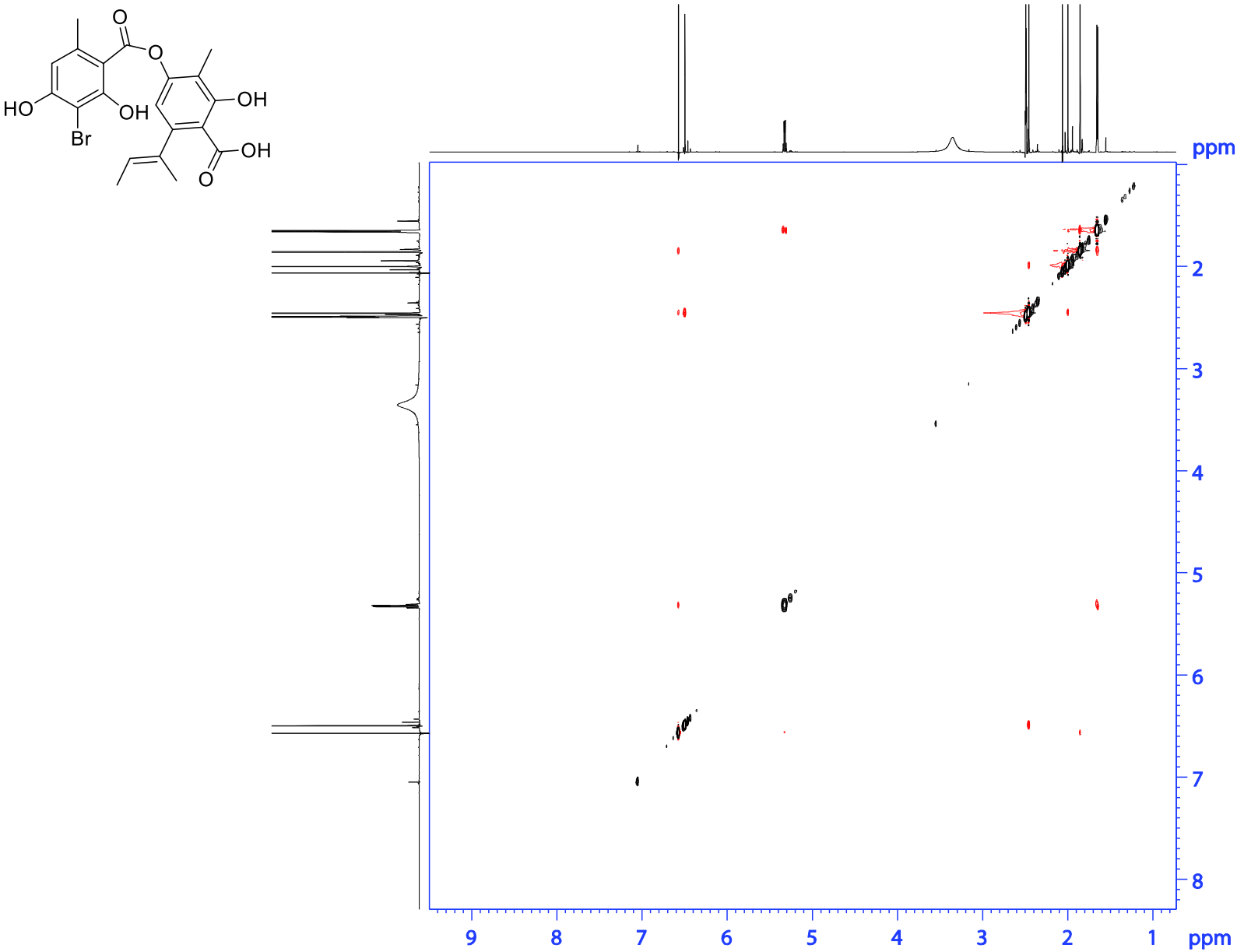


Figure S52. ^{1}H-^{1}H ROESY NMR spectrum (600 MHz, DMSO-d_6) of 3-bromounguidepside A (**8**)

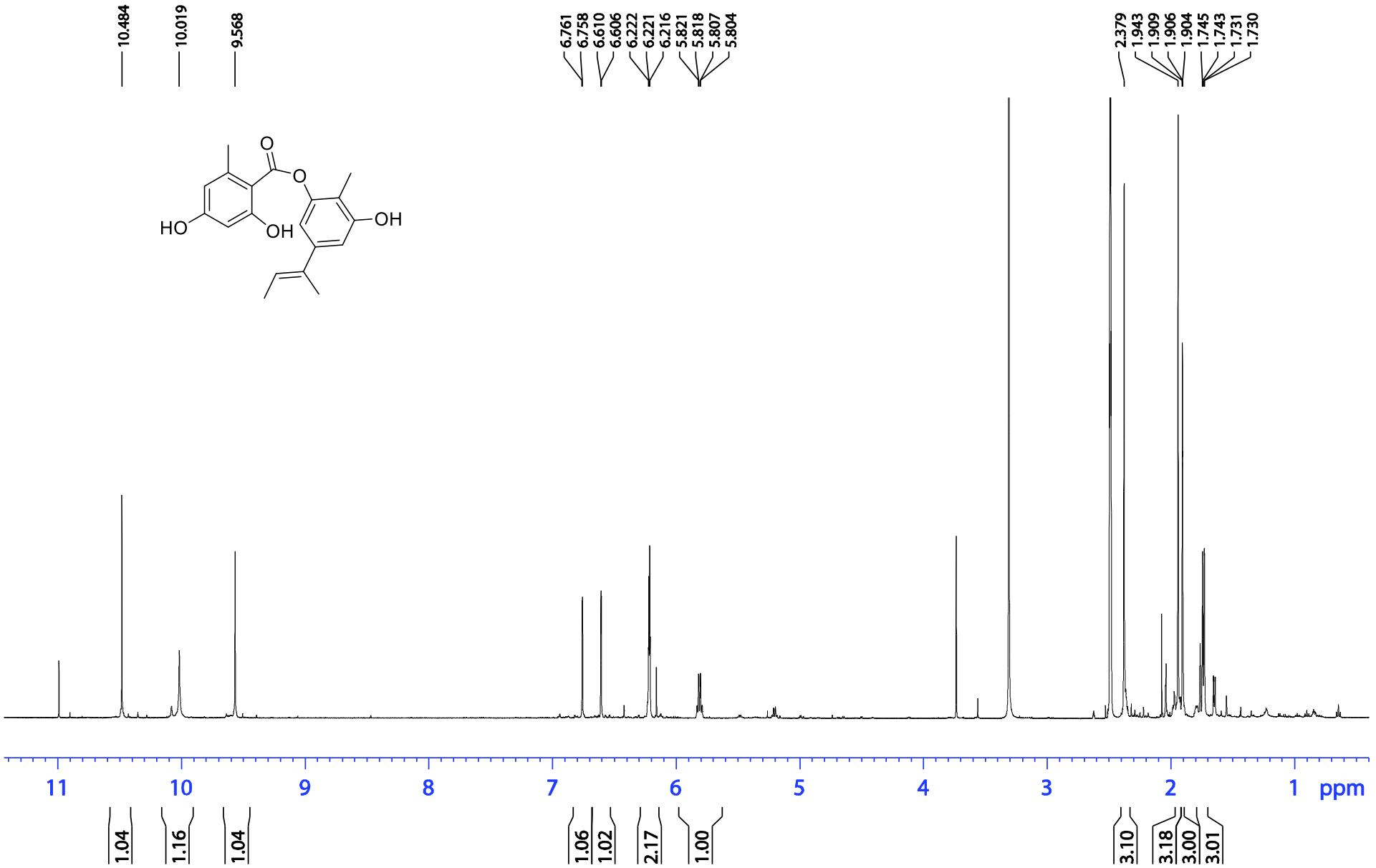


Figure S53. ^{1}H NMR spectrum (500 MHz, DMSO-d_6) of decarboxyunguidepside A (**9**)

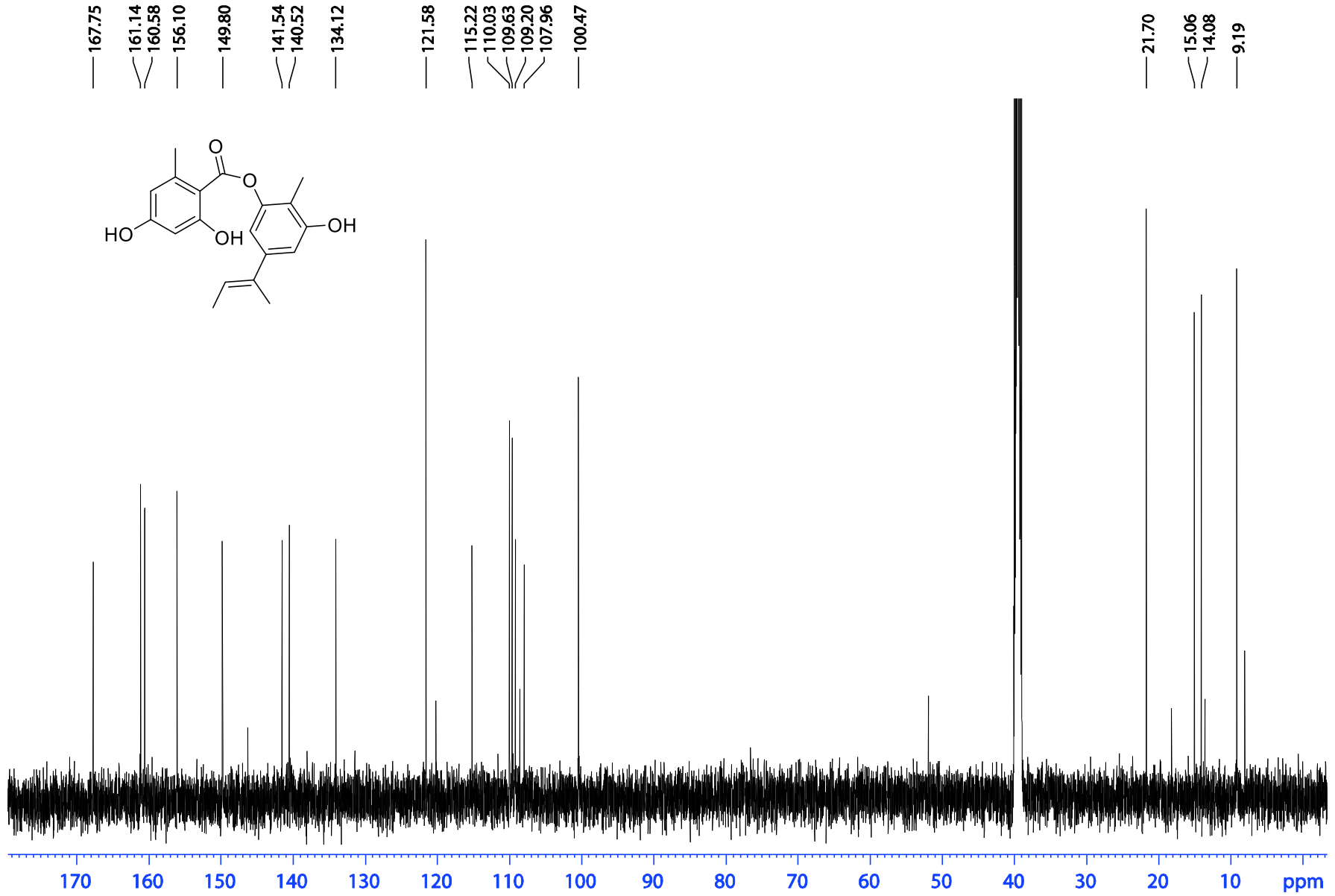


Figure S54. ^{13}C NMR spectrum (125 MHz, DMSO-d_6) of decarboxyunguidepside A (**9**)

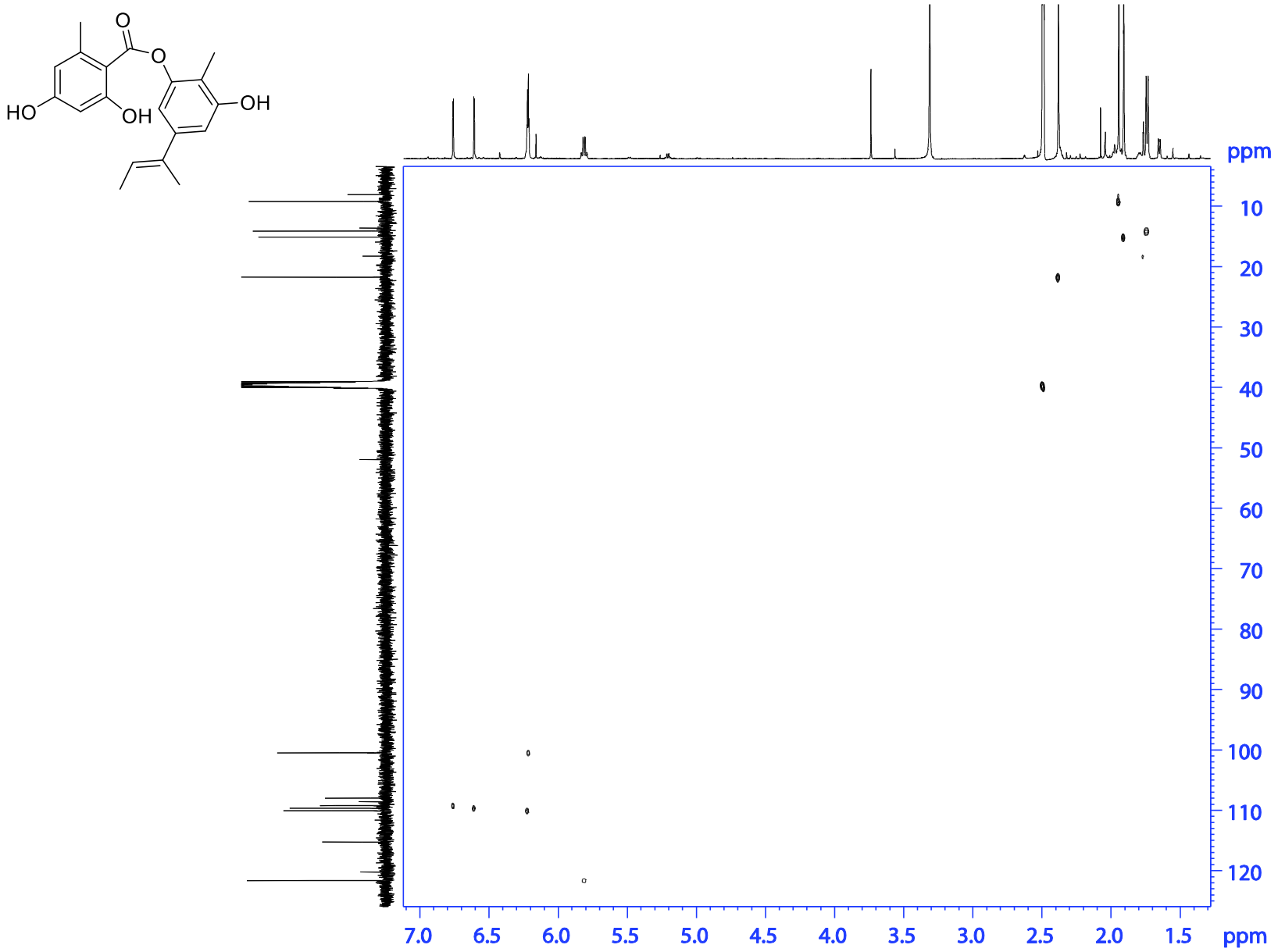


Figure S55. ^{1}H-^{13}C HSQC NMR spectrum (500 MHz, DMSO-d_6) of decarboxyunguidepside A (**9**)

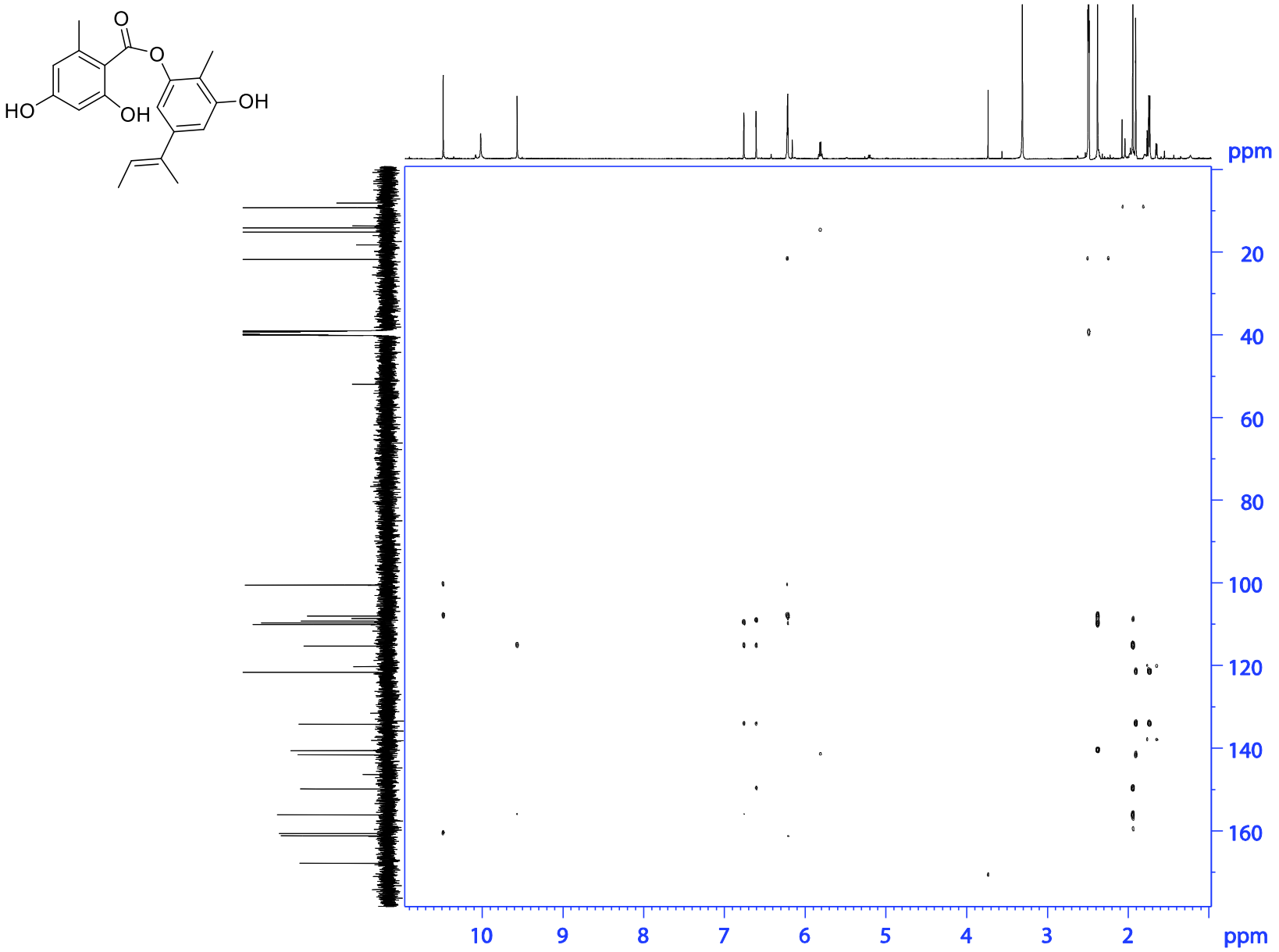


Figure S56. ^{1}H-^{13}C HMBC NMR spectrum (500 MHz, DMSO-d_6) of decarboxyunguidepside A (**9**)

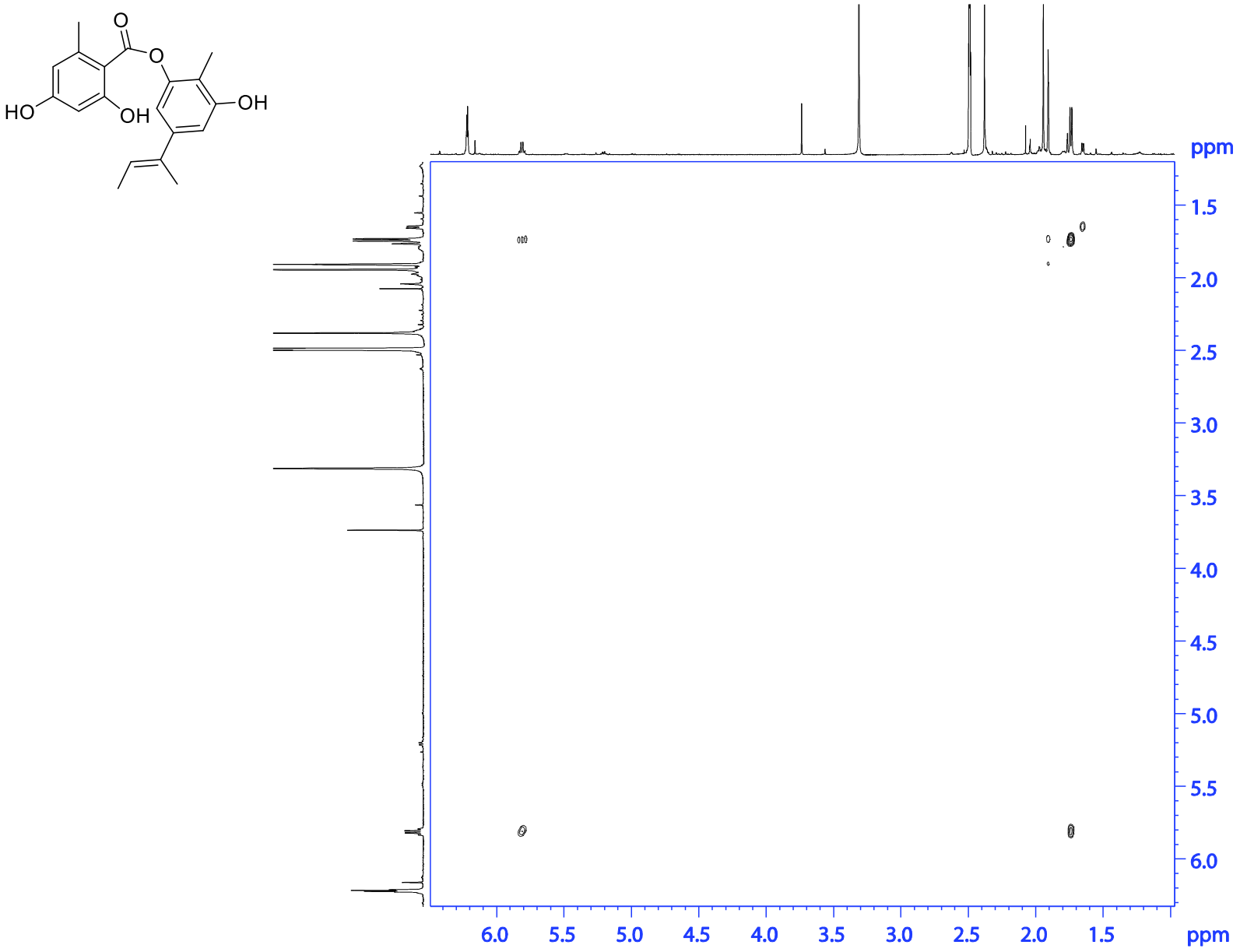


Figure S57. ^{1}H-^{1}H COSY NMR spectrum (500 MHz, DMSO-d_6) of decarboxyunguidepside A (**9**)

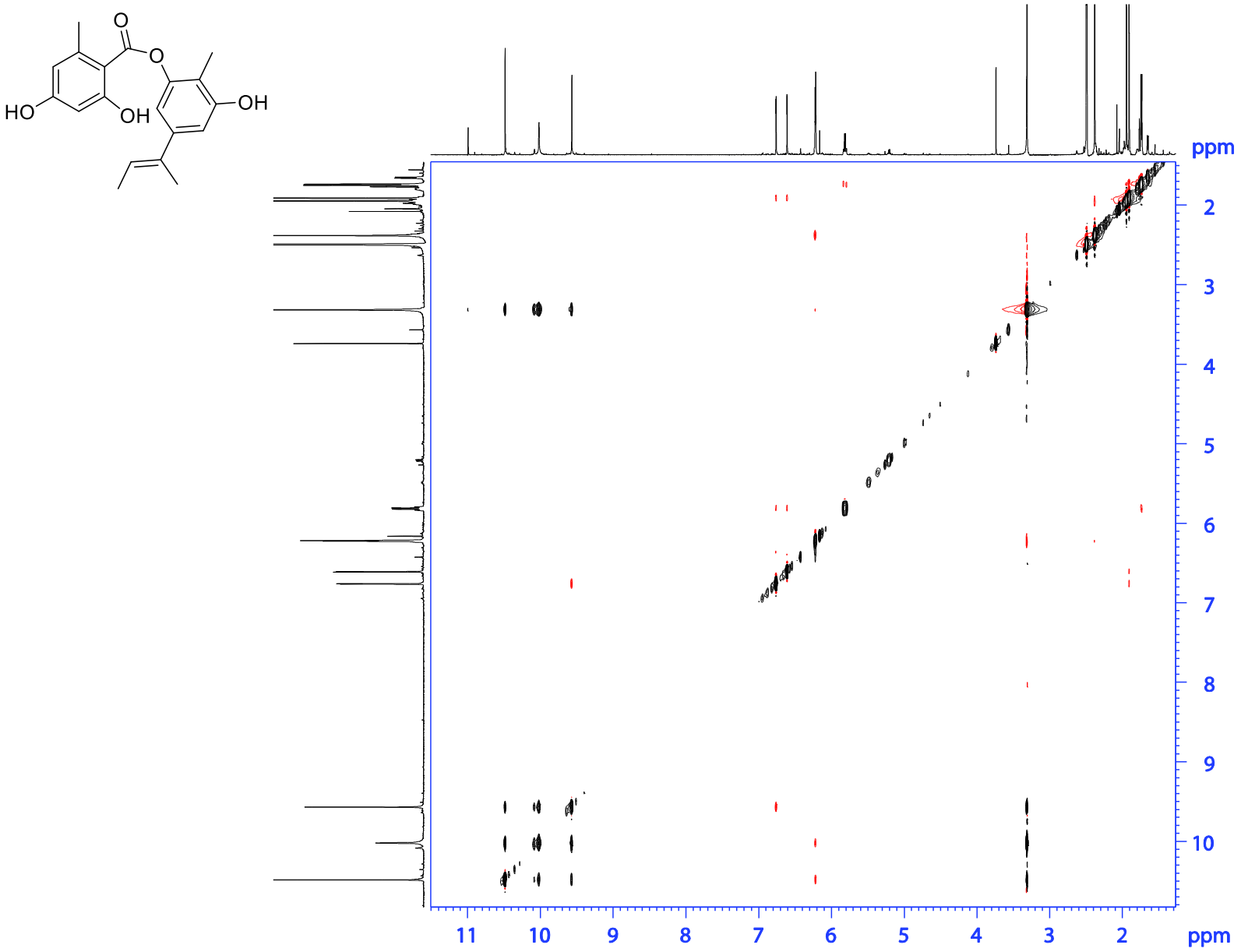


Figure S58. ^{1}H-^{1}H ROESY NMR spectrum (500 MHz, DMSO-d_6) of decarboxyunguidepside A (**9**)

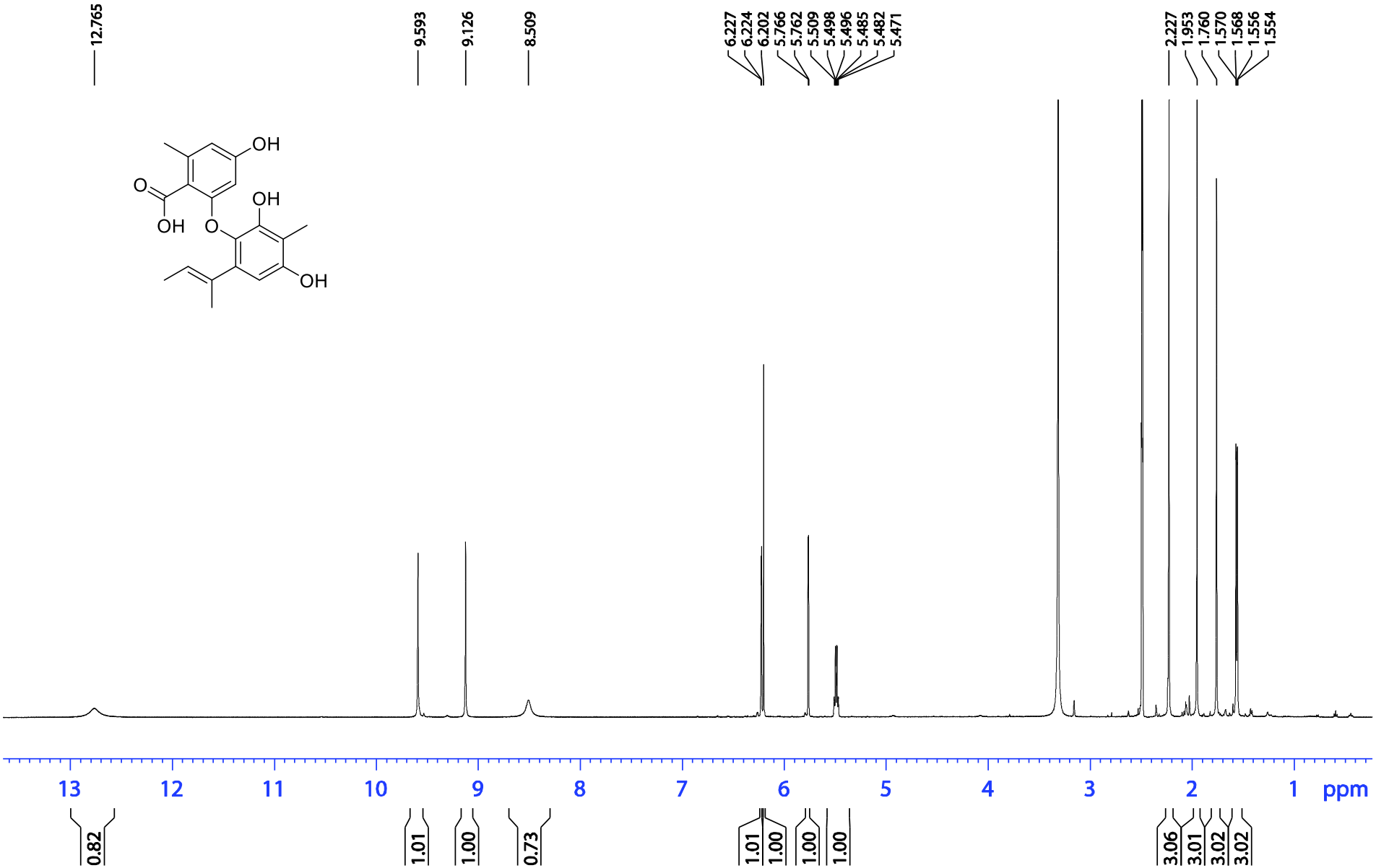


Figure S59. ^{1}H NMR spectrum (500 MHz, DMSO-d_6) of unguinolic acid (**10**)

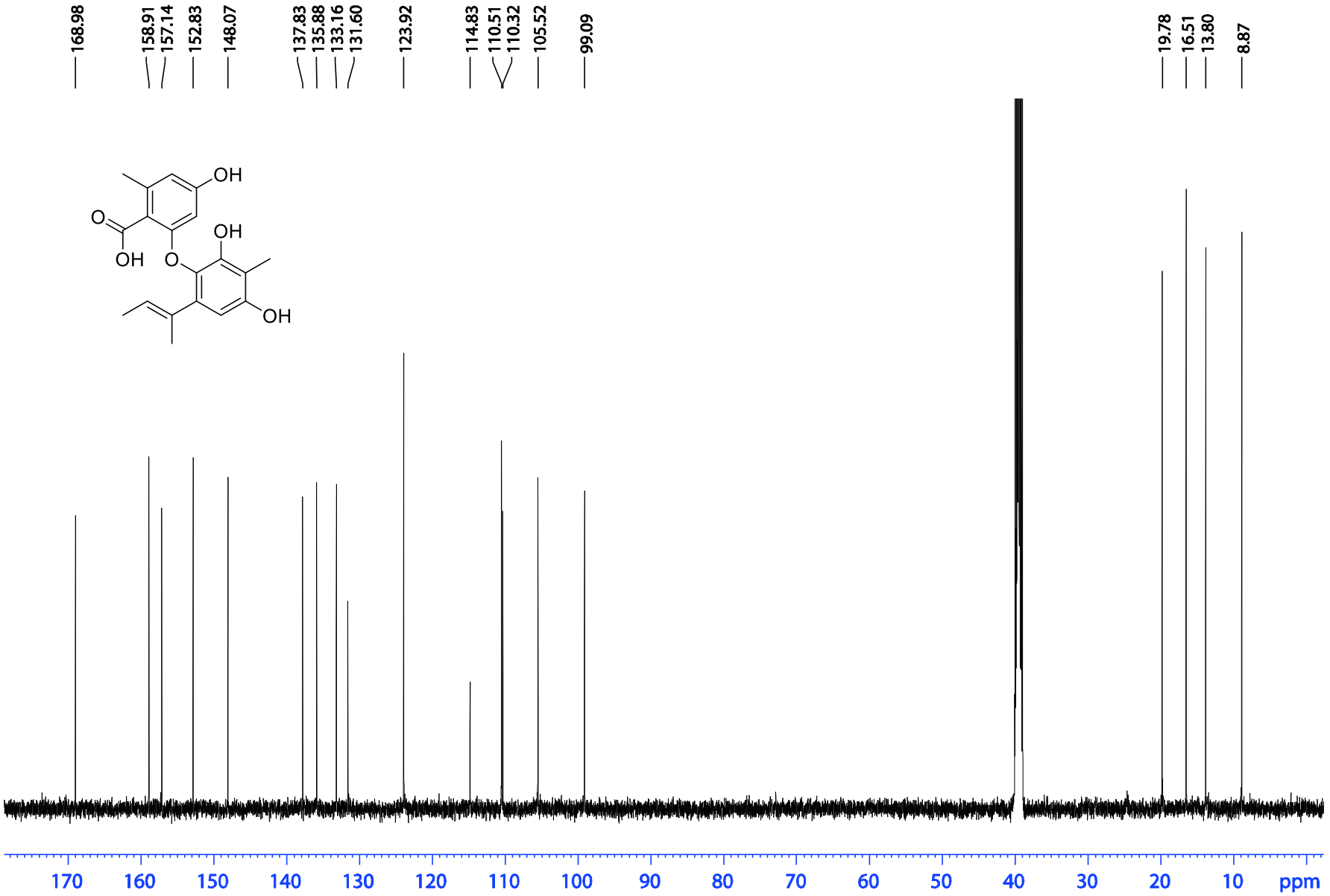


Figure S60. ^{13}C NMR spectrum (125 MHz, DMSO-d_6) of unguinolic acid (**10**)

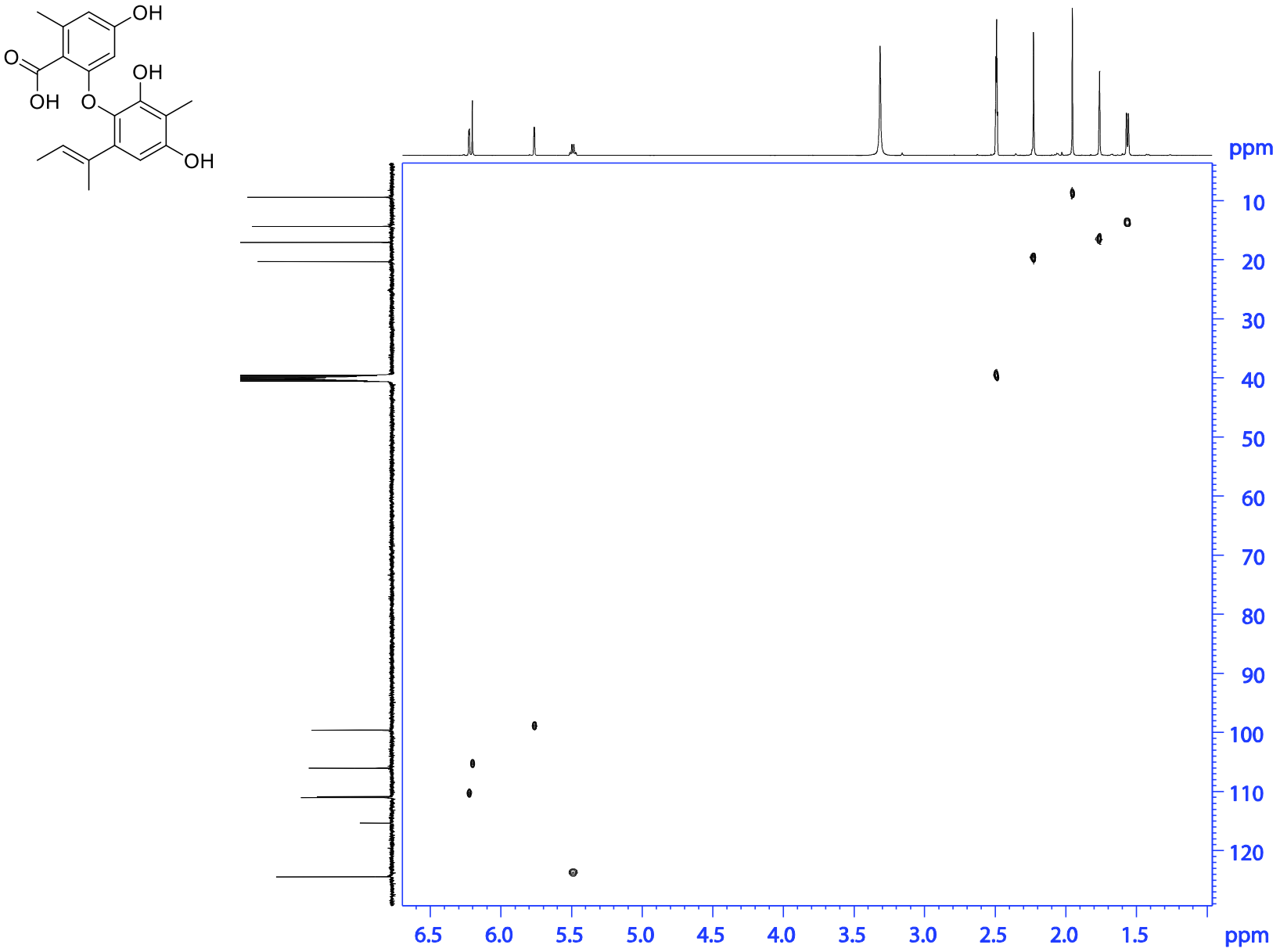


Figure S61. ^{1}H-^{13}C HSQC NMR spectrum (500 MHz, DMSO-d_6) of unguinolic acid (**10**)

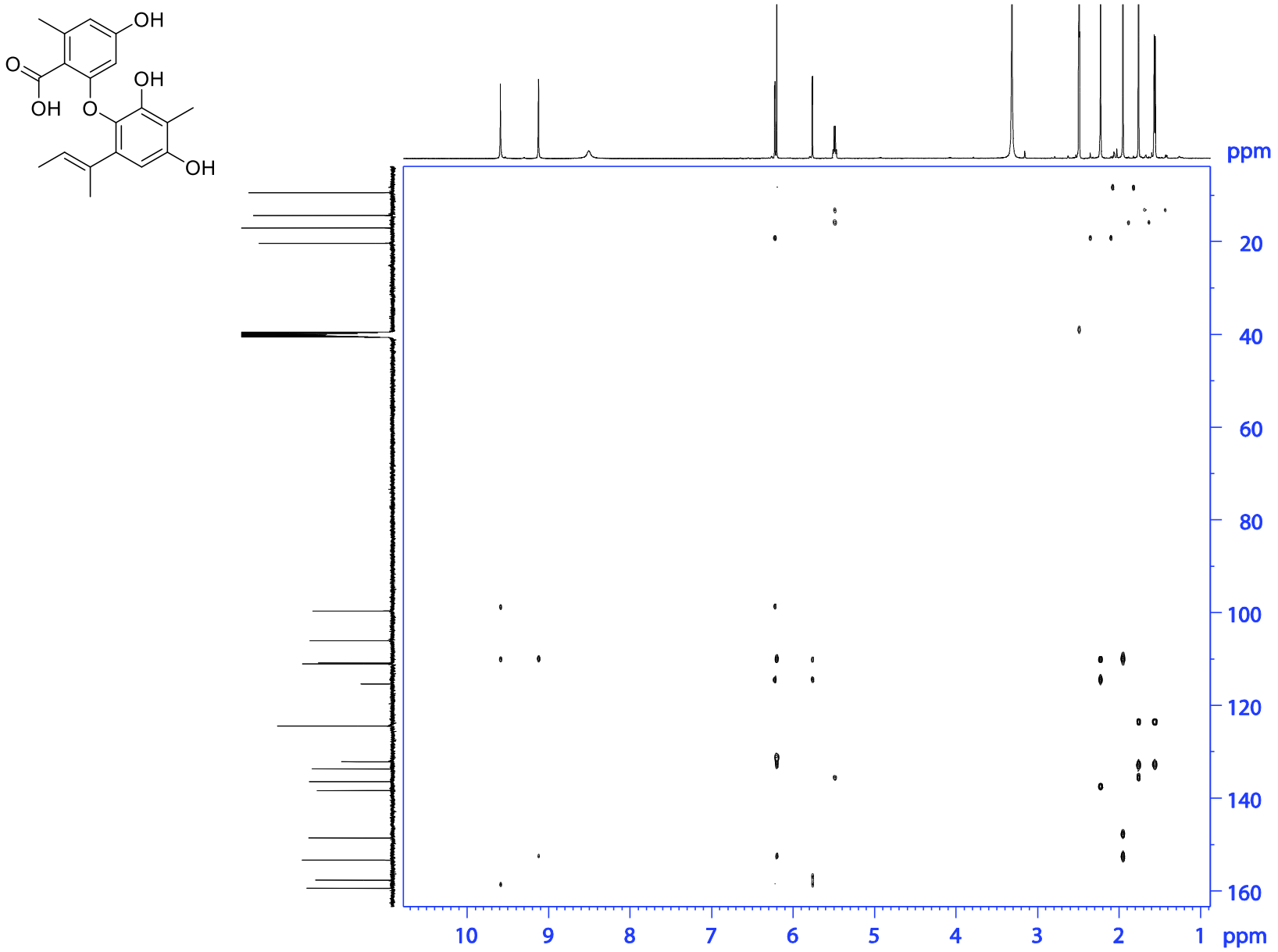


Figure S62. ^{1}H-^{13}C HMBC NMR spectrum (500 MHz, DMSO-d_6) of unguinolic acid (**10**)

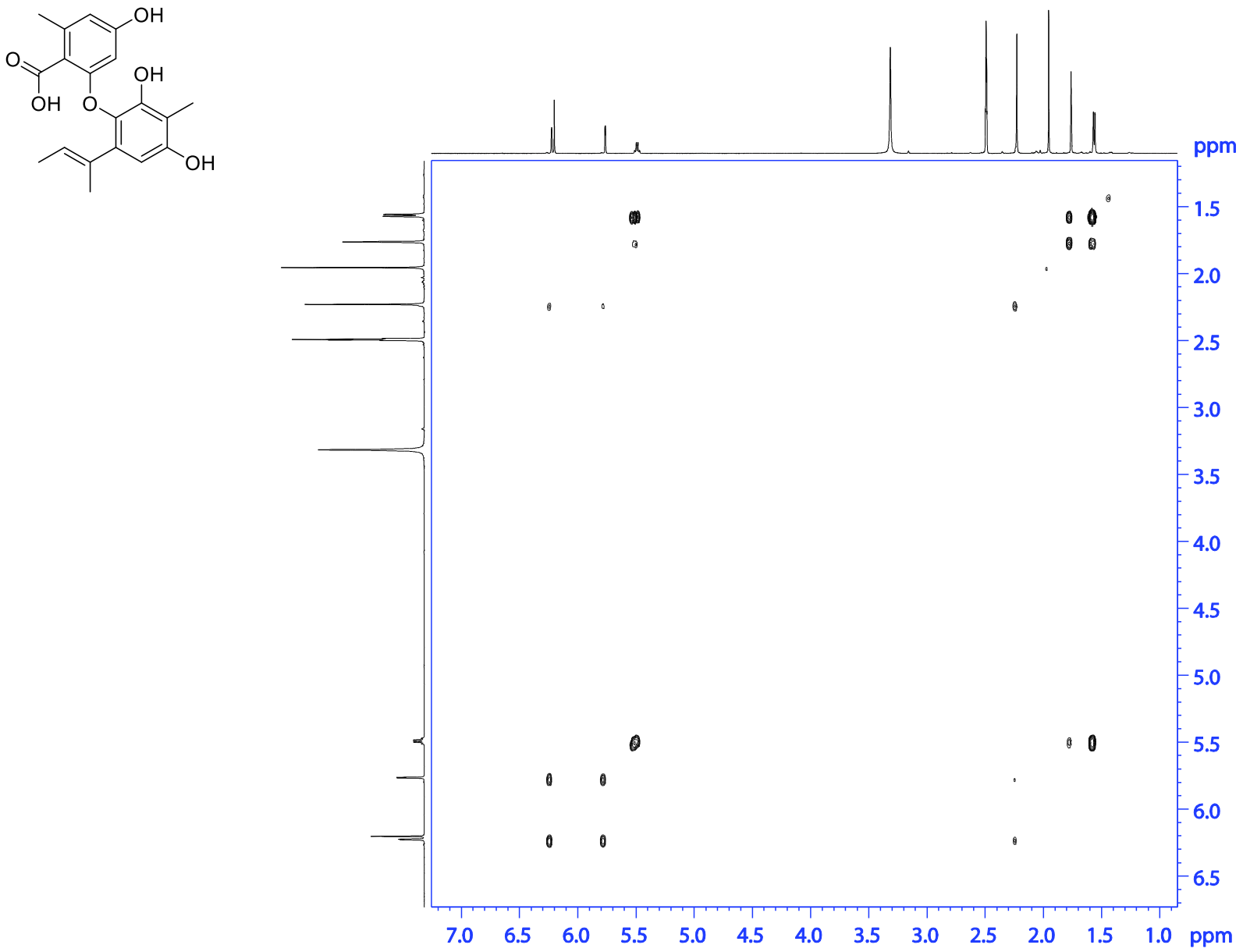


Figure S63. ^{1}H-^{1}H COSY NMR spectrum (500 MHz, DMSO-d_6) of unguinolic acid (**10**)

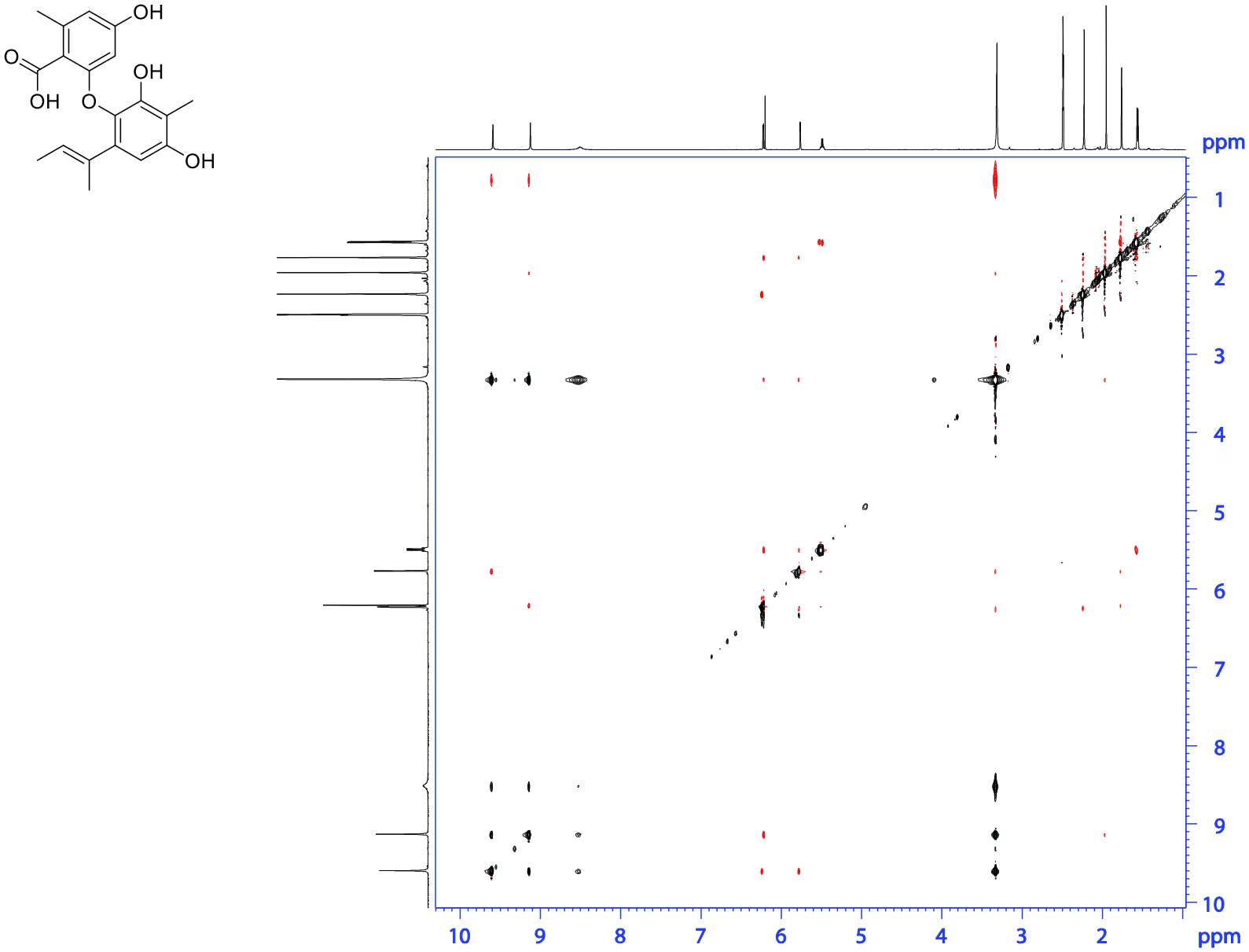


Figure S64. ^{1}H-^{1}H ROESY NMR spectrum (500 MHz, DMSO-d_6) of unguinolic acid (**10**)

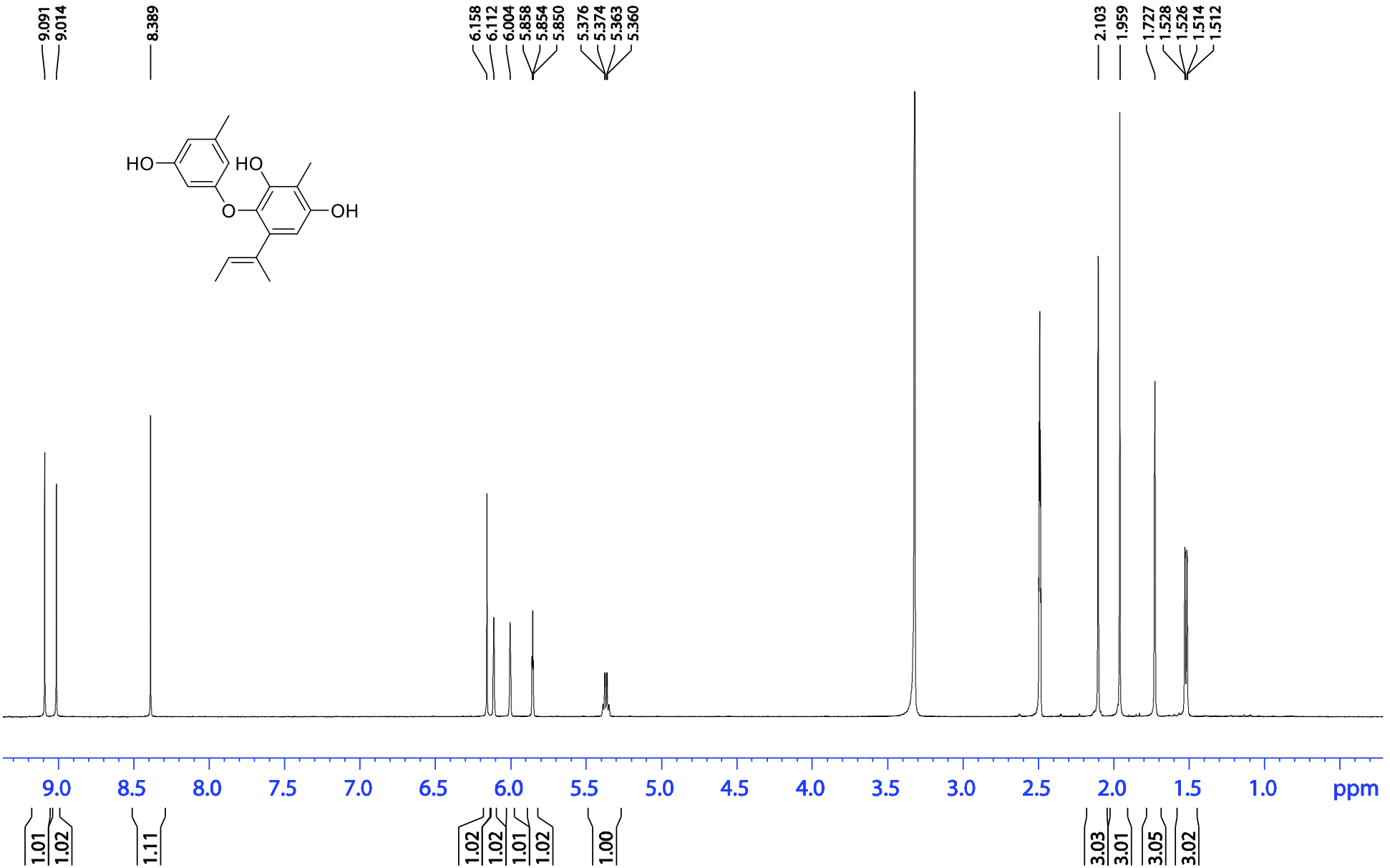


Figure S65. ^{1}H NMR spectrum (500 MHz, DMSO-d_6) of decarboxyunguinolic acid (**11**)

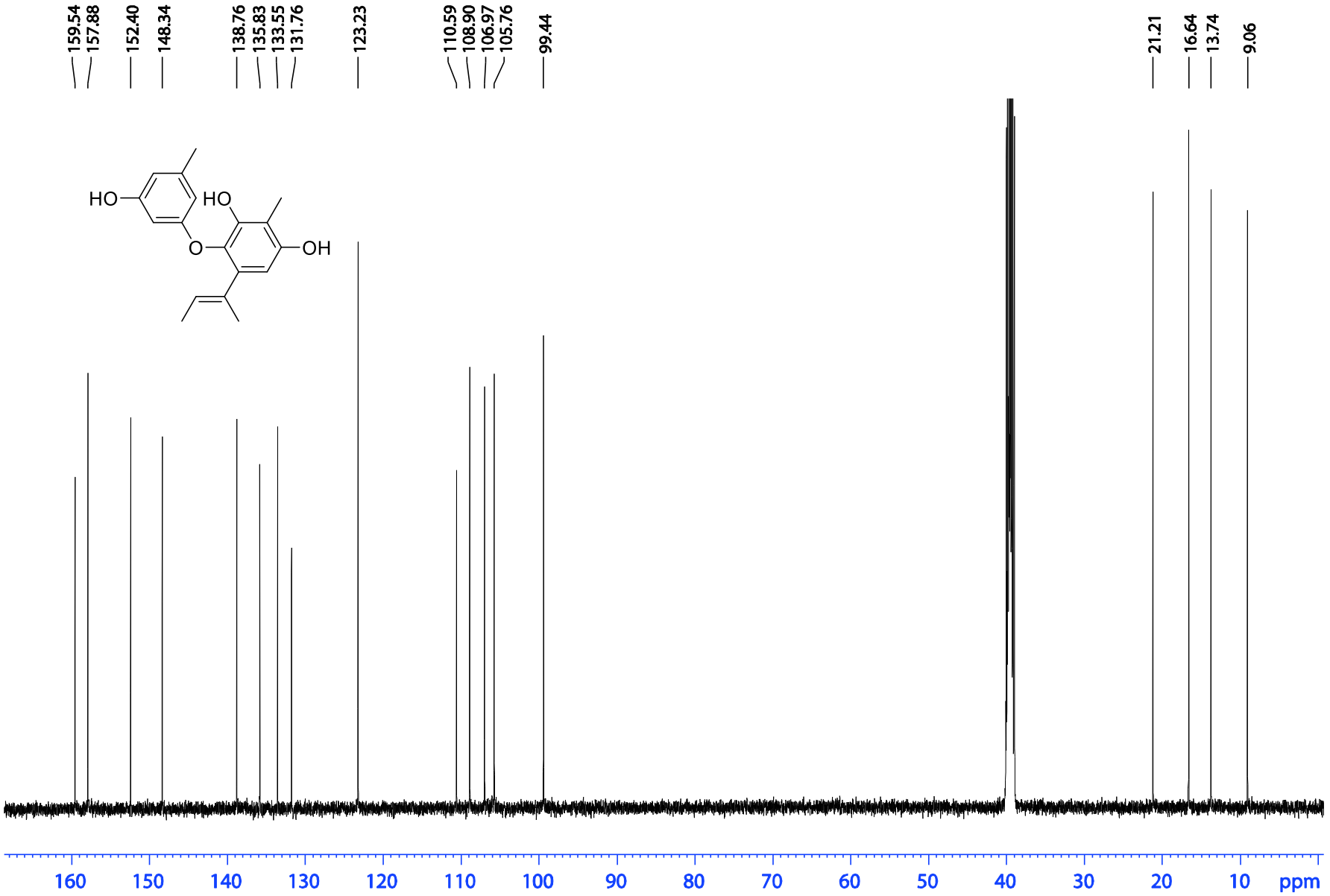


Figure S66. ^{13}C NMR spectrum (125 MHz, DMSO-d_6) of decarboxyunguinolic acid (**11**)

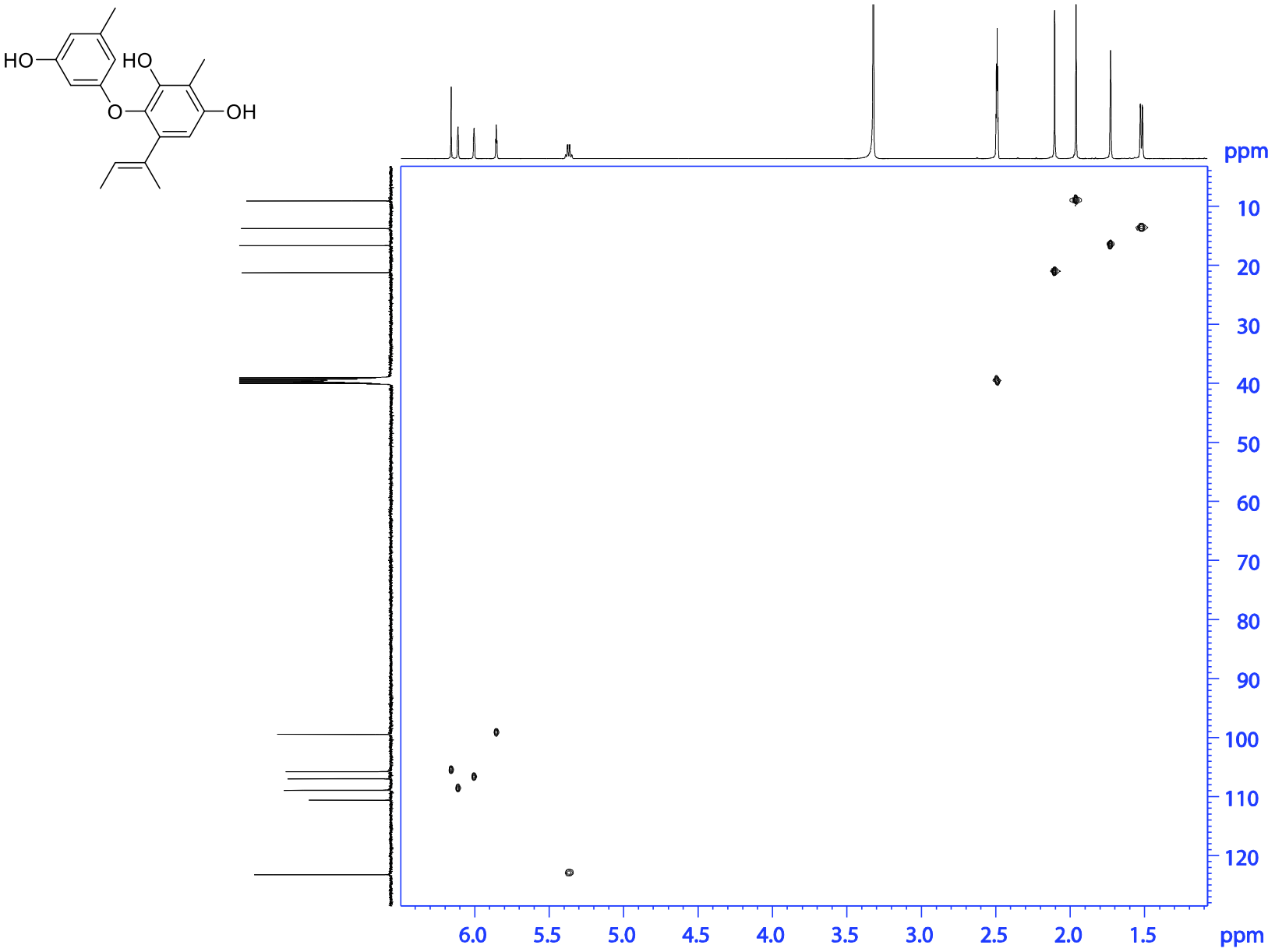


Figure S67. ^{1}H-^{13}C HSQC NMR spectrum (500 MHz, DMSO-d_6) of decarboxyunguinolic acid (**11**)

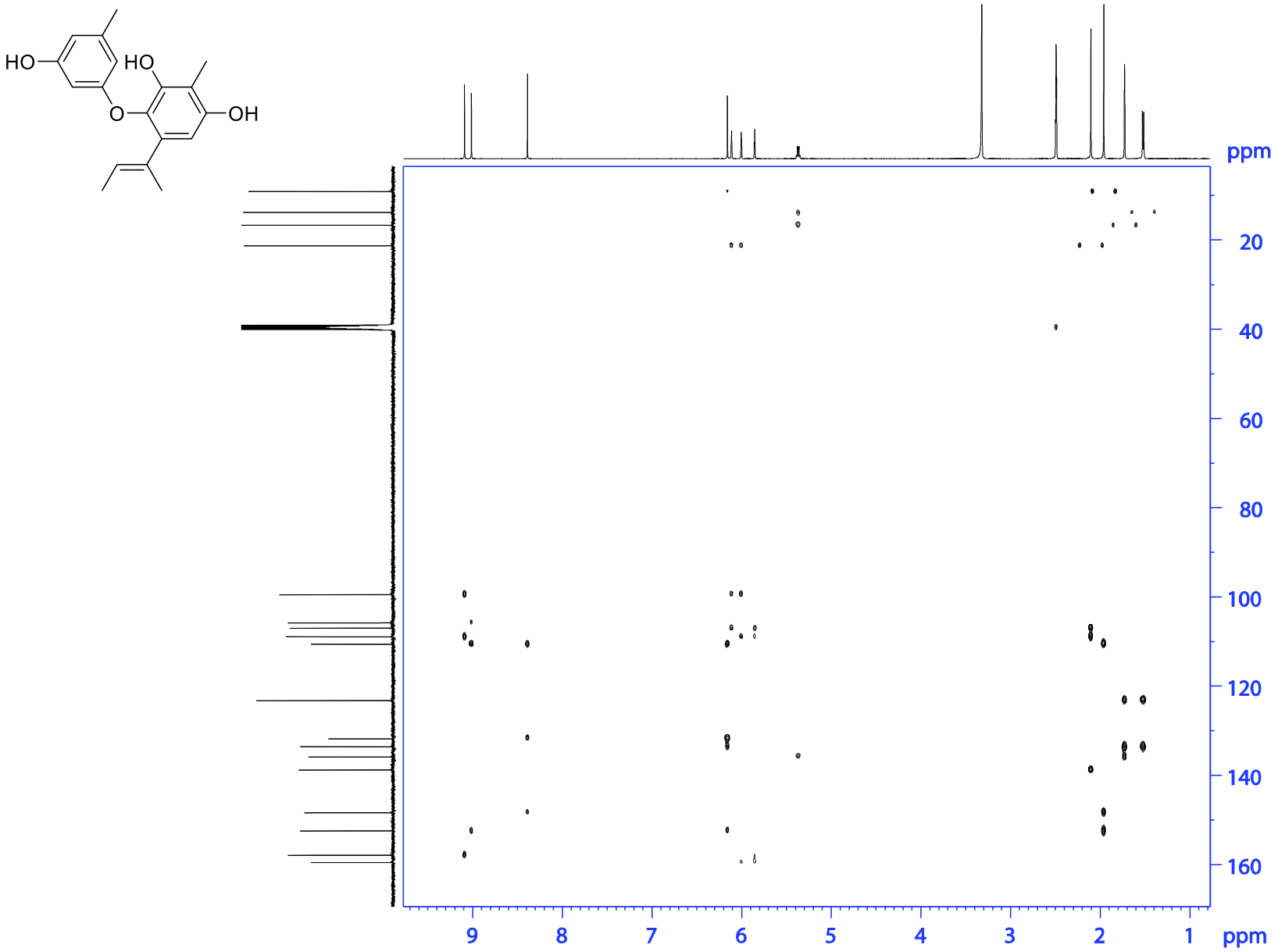


Figure S68. ^{1}H-^{13}C HMBC NMR spectrum (500 MHz, DMSO-d_6) of decarboxyunguinolic acid (**11**)

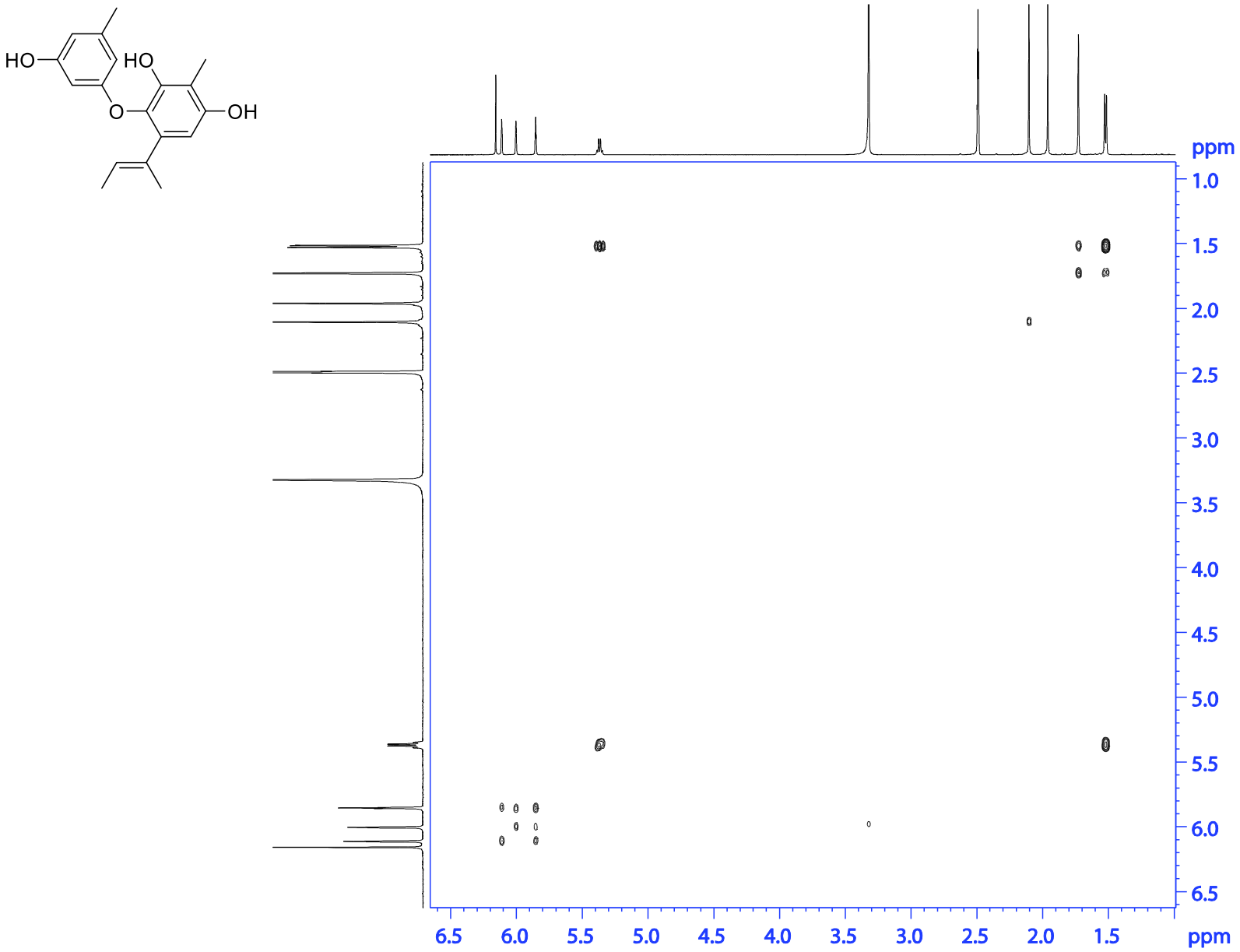


Figure S69. ^{1}H-^{1}H COSY NMR spectrum (500 MHz, DMSO-d_6) of decarboxyunguinolic acid (**11**)

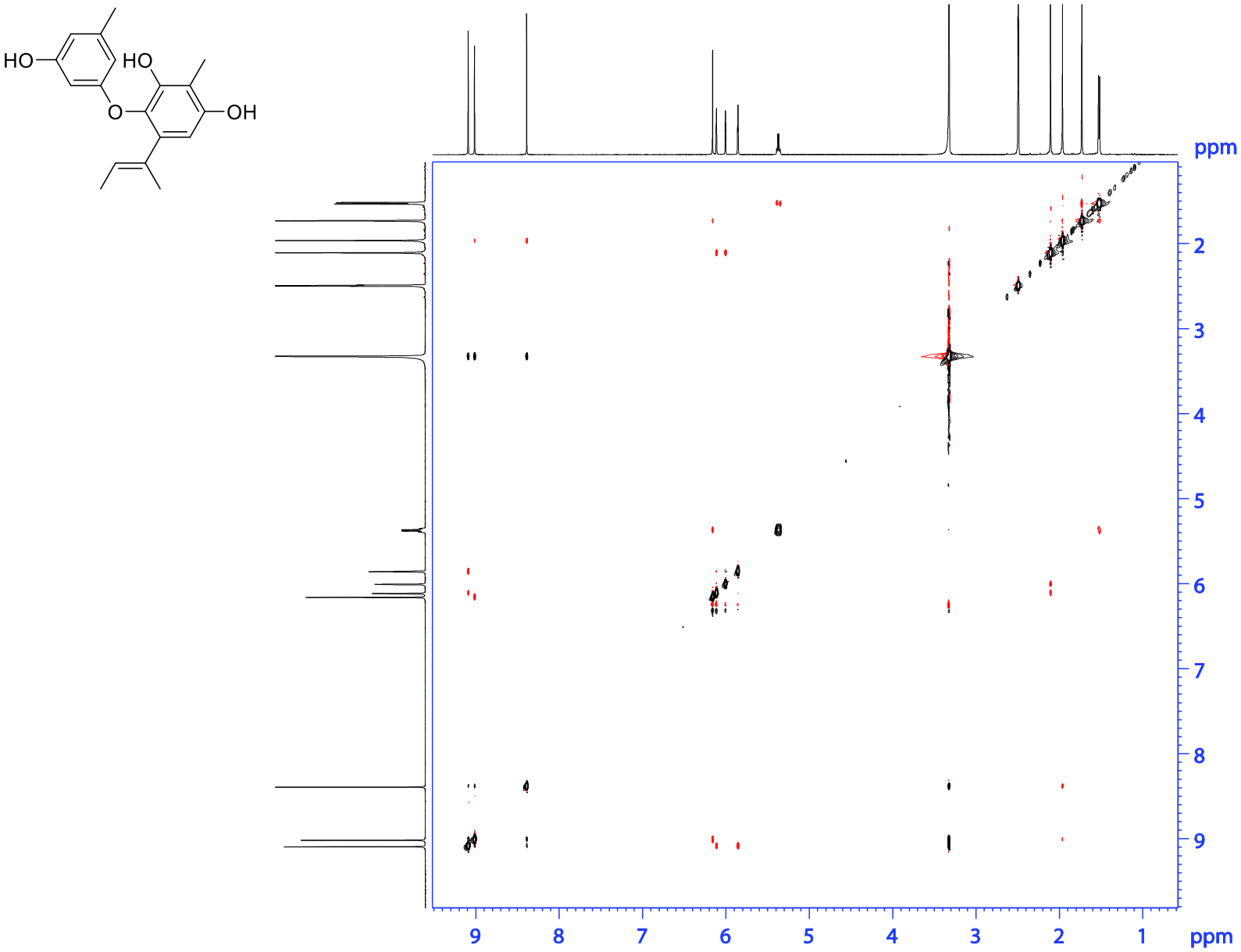


Figure S70. ^{1}H-^{1}H ROESY NMR spectrum (500 MHz, DMSO-d_6) of decarboxyunguinolic acid (**11**)

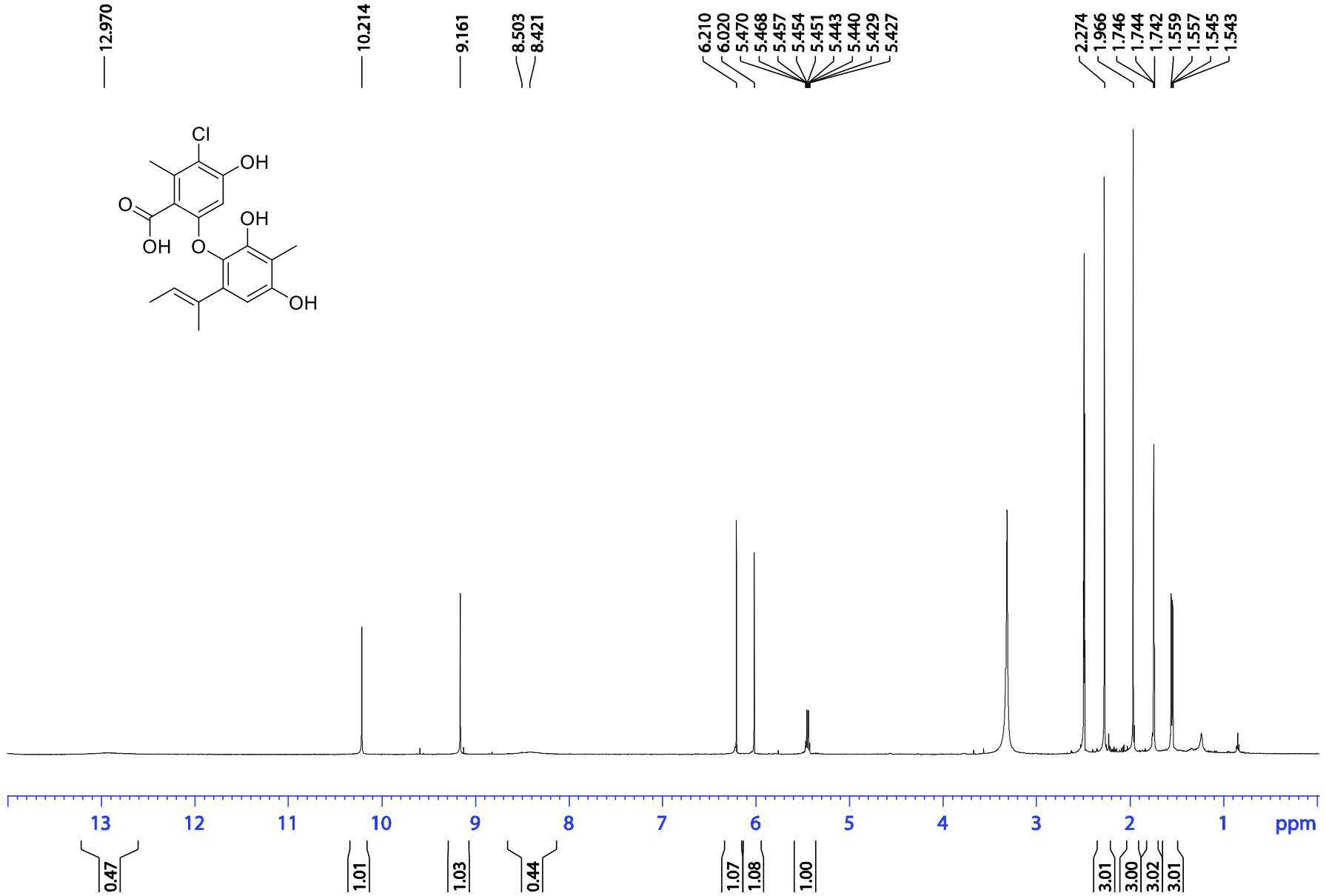


Figure S71. ^{1}H NMR spectrum (500 MHz, DMSO-d_6) of 5-chlorounguinolic acid (**12**)

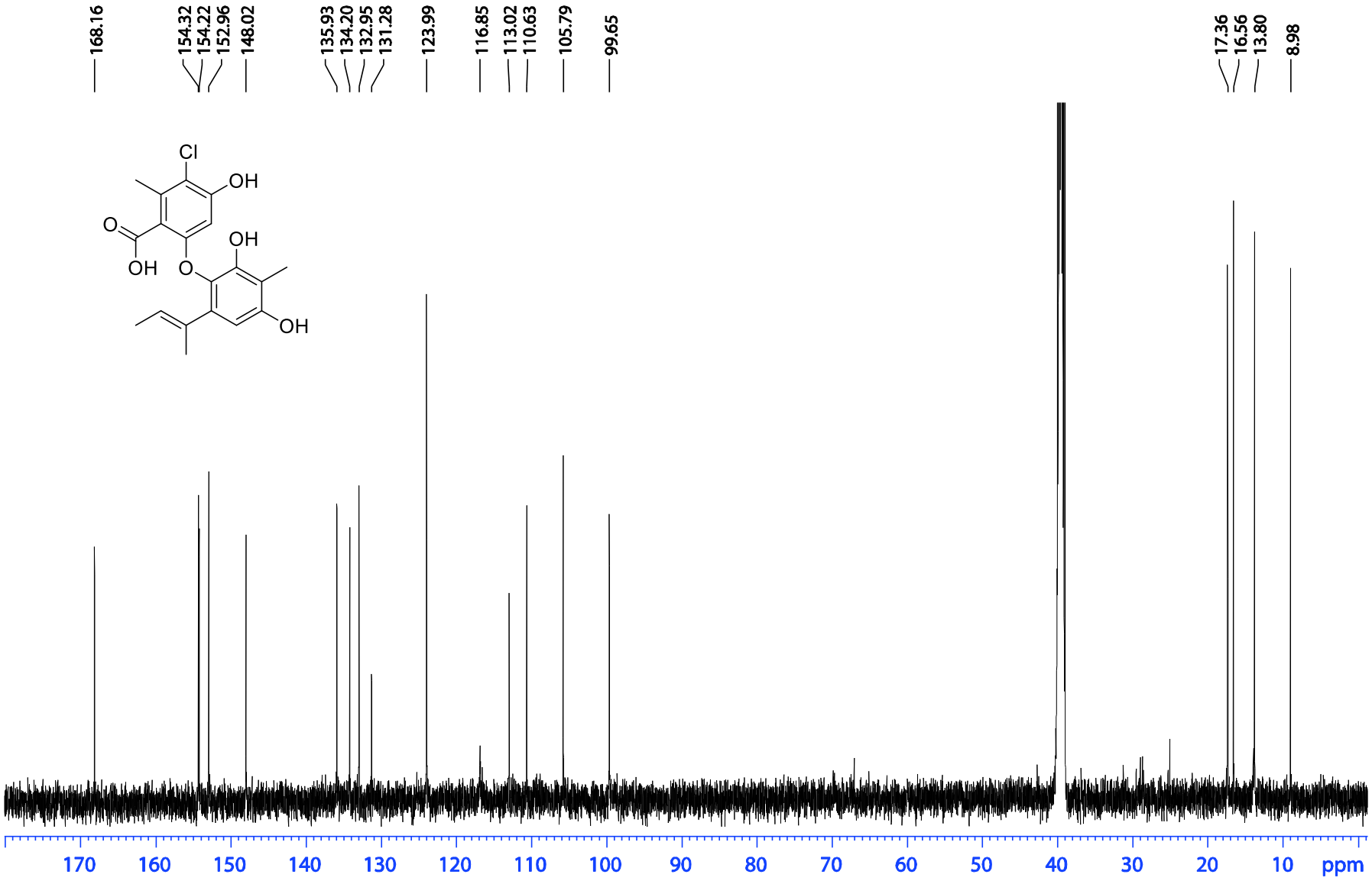


Figure S72. ^{13}C NMR spectrum (125 MHz, DMSO-d_6) of 5-chlorounguinolic acid (**12**)

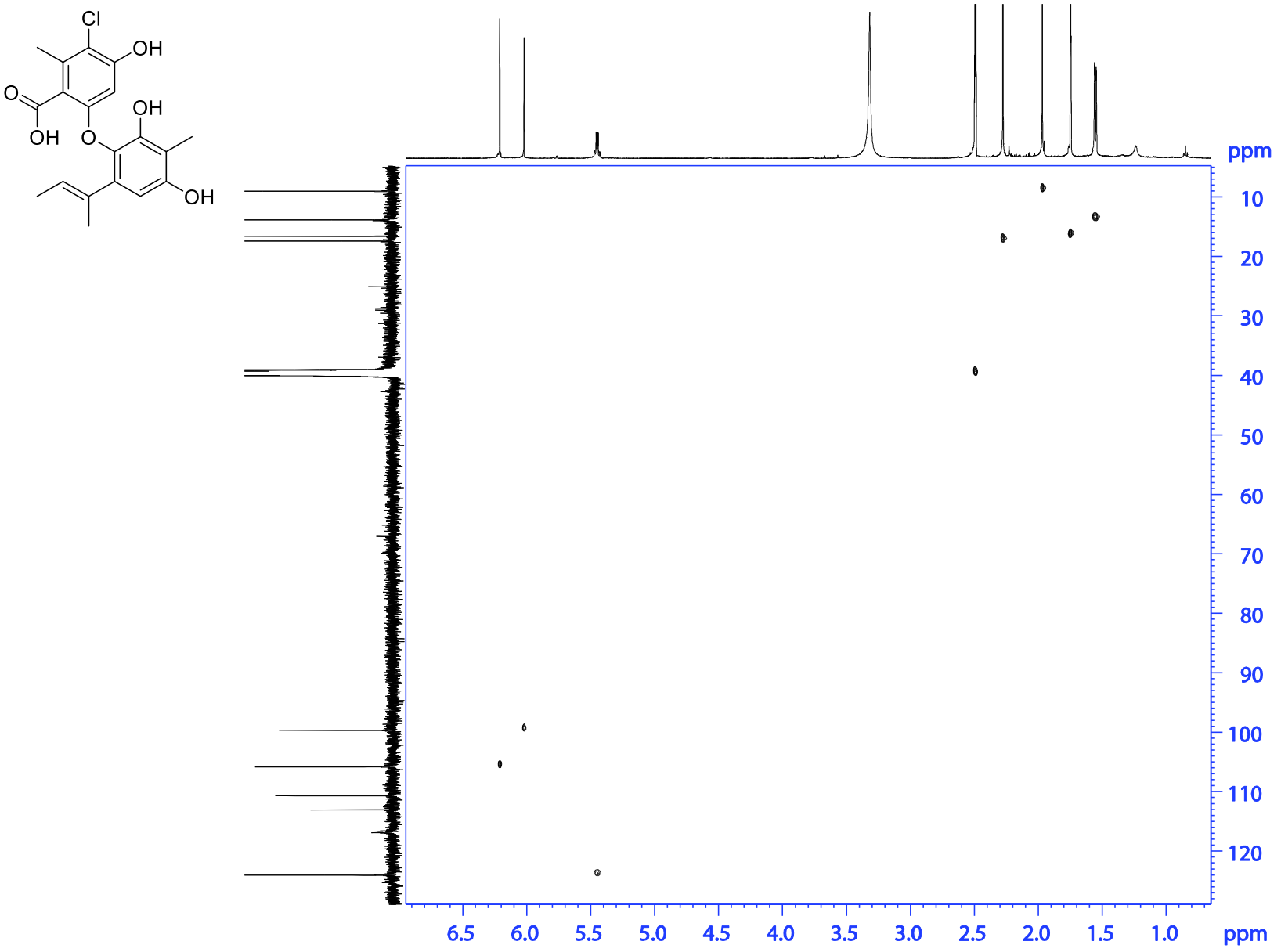


Figure S73. ^{1}H-^{13}C HSQC NMR spectrum (500 MHz, DMSO-d_6) of 5-chlorounguinolic acid (**12**)

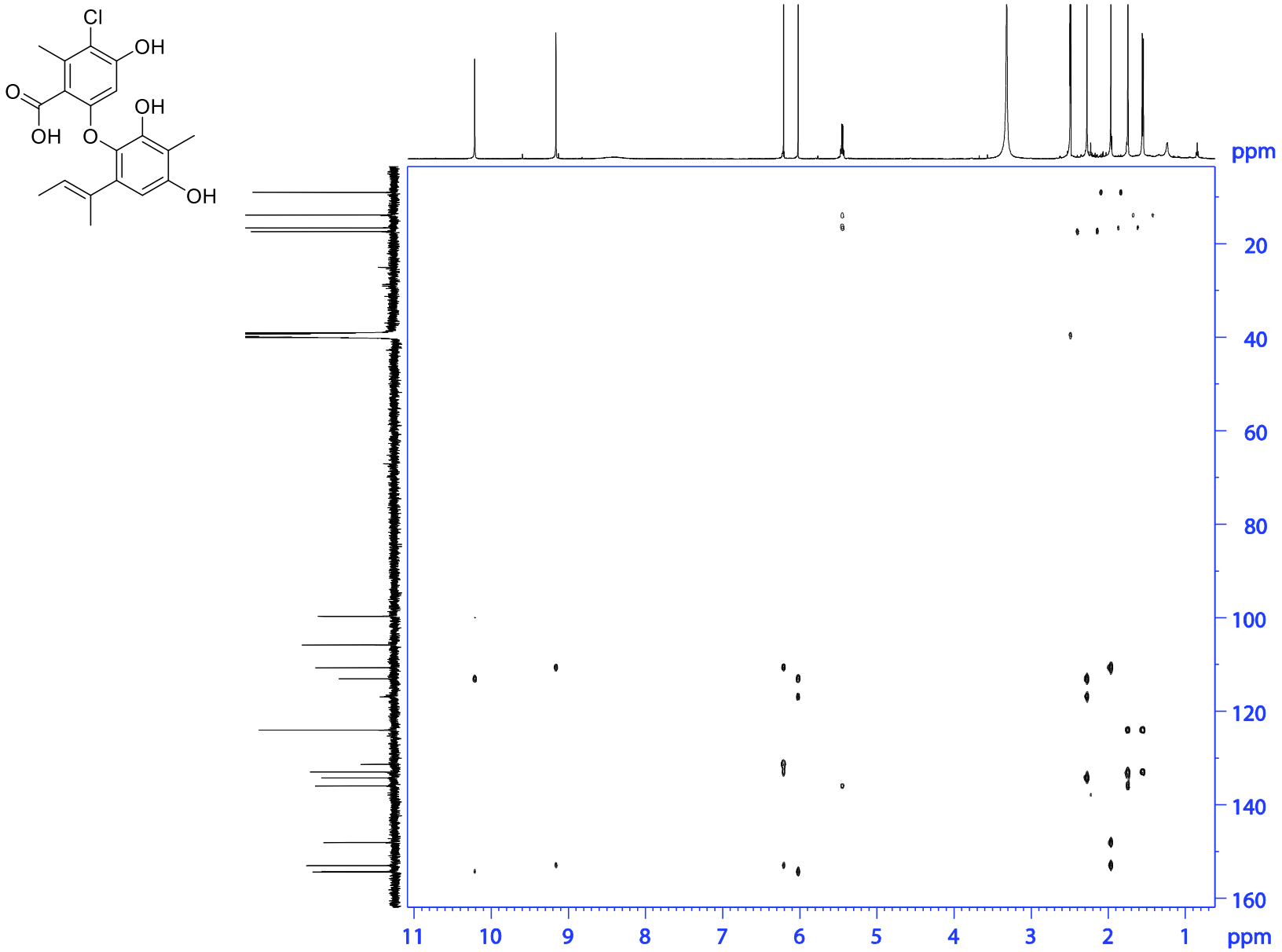


Figure S74. ^{1}H-^{13}C HMBC NMR spectrum (500 MHz, DMSO-d_6) of 5-chlorounguinolic acid (**12**)

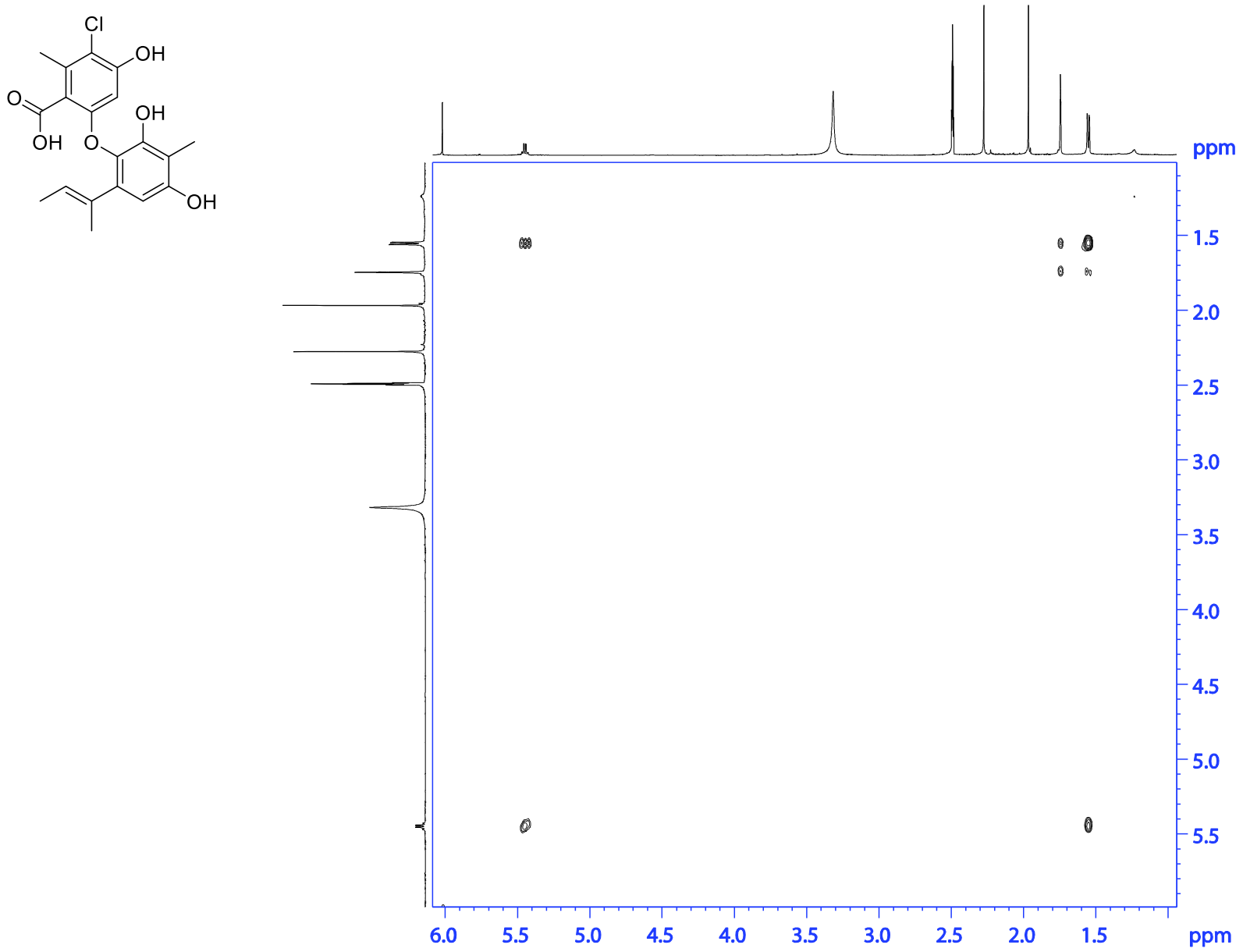


Figure S75. ^{1}H-^{1}H COSY NMR spectrum (500 MHz, DMSO-d_6) of 5-chlorounguinolic acid (**12**)

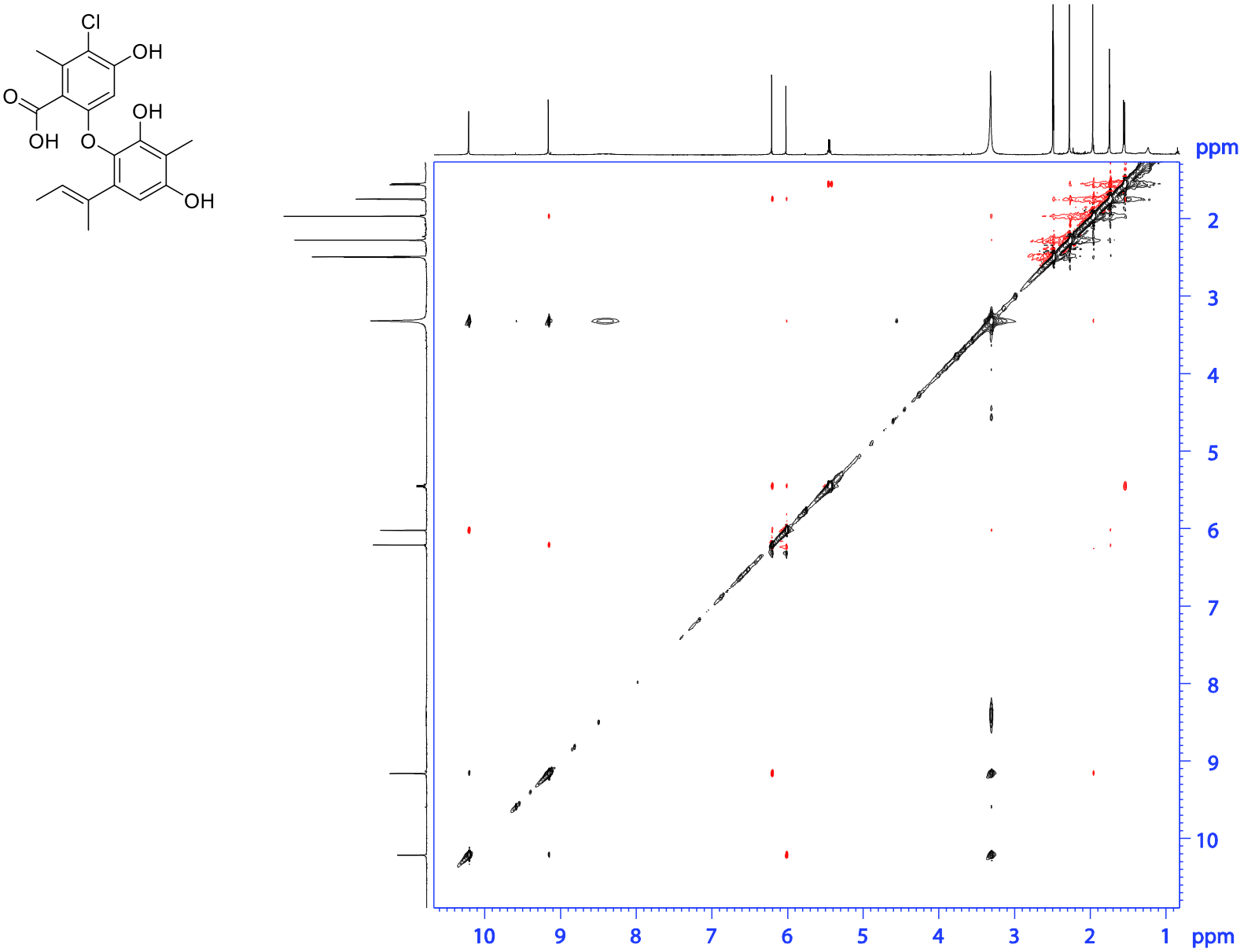


Figure S76. ^{1}H-^{1}H ROESY NMR spectrum (500 MHz, DMSO-d_6) of 5-chlorounguinolic acid (**12**)

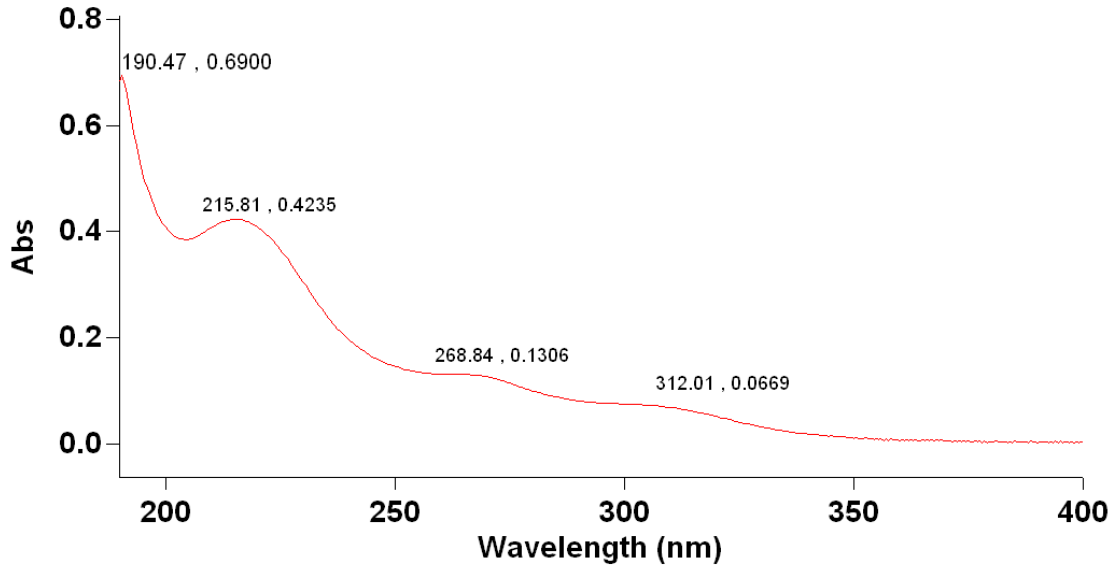


Figure S77. UV-vis spectrum of 7-carboxyfolipastatin (**1**) in MeOH

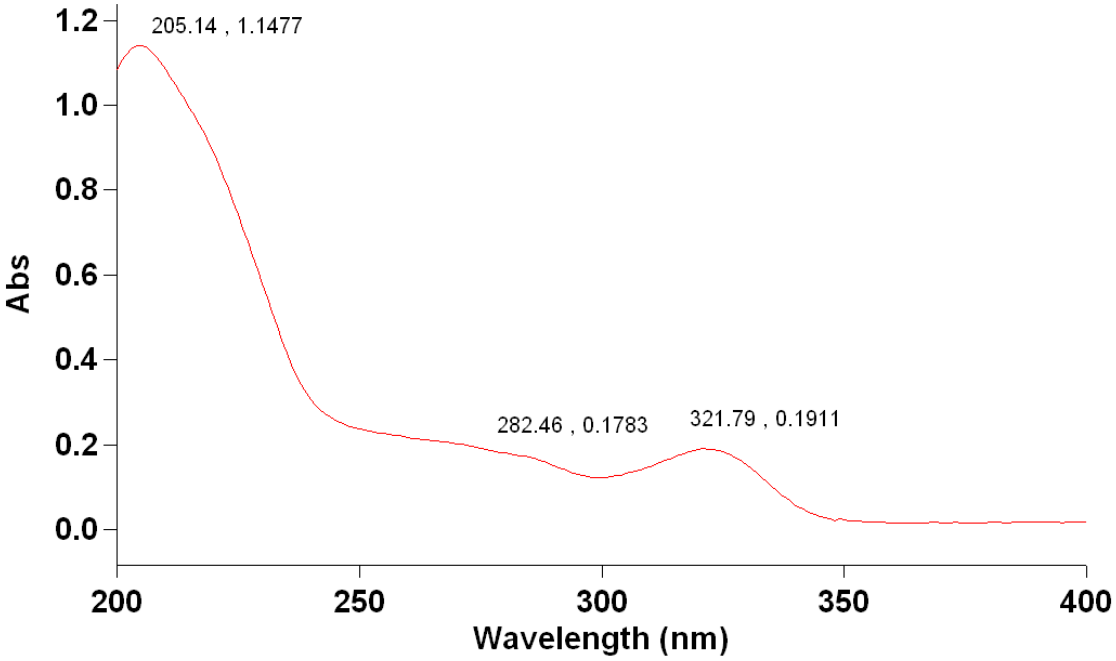


Figure S78. UV-vis spectrum of 4,7-dichlorounguinol (**2**) in MeOH

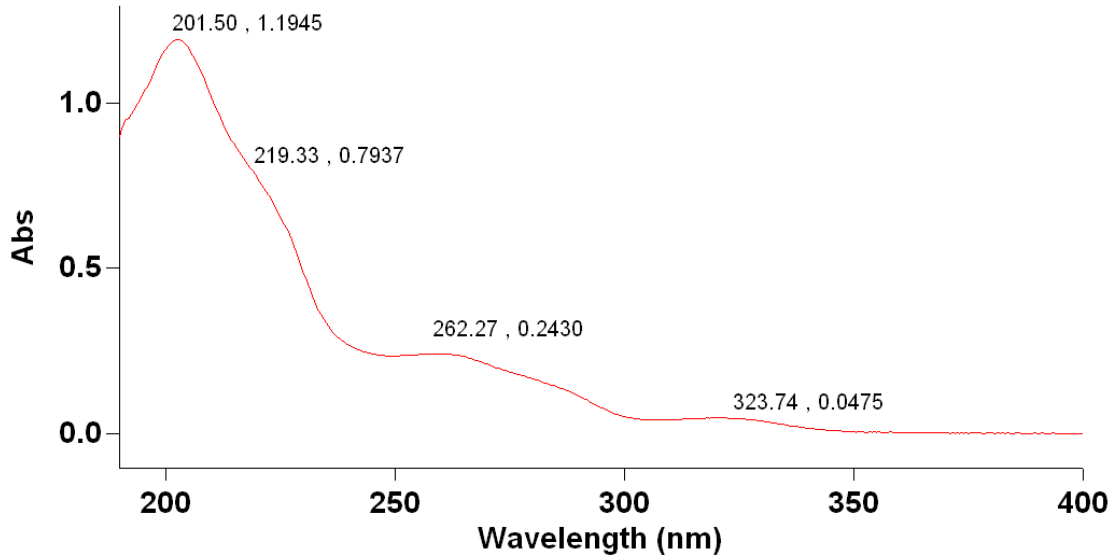


Figure S79. UV-vis spectrum of 7-bromounguinol (**3**) in MeOH

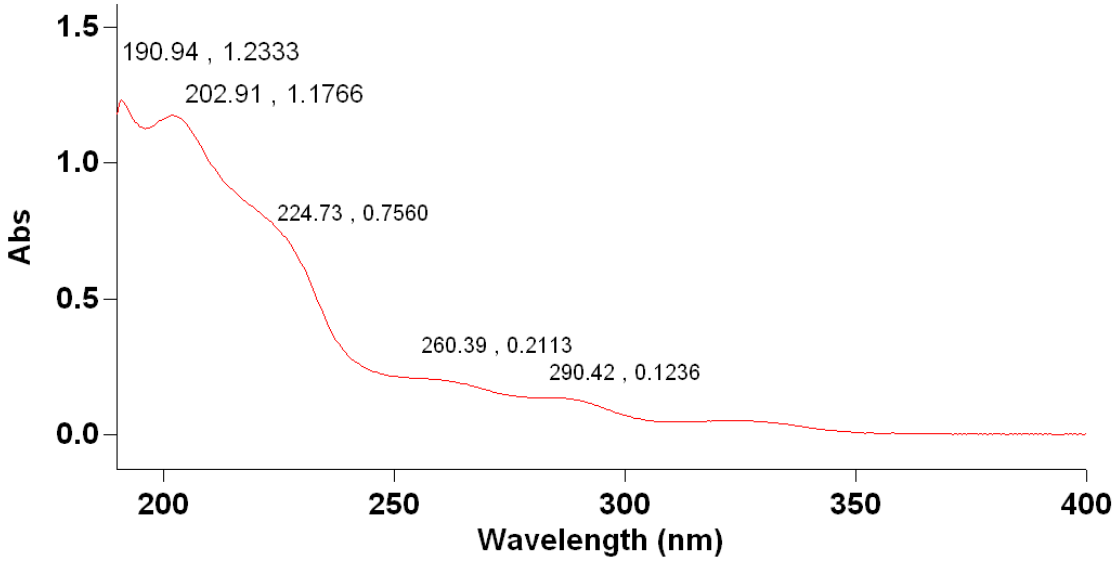


Figure S80. UV-vis spectrum of 2-chloro-7-bromounguinol (**4**) in MeOH

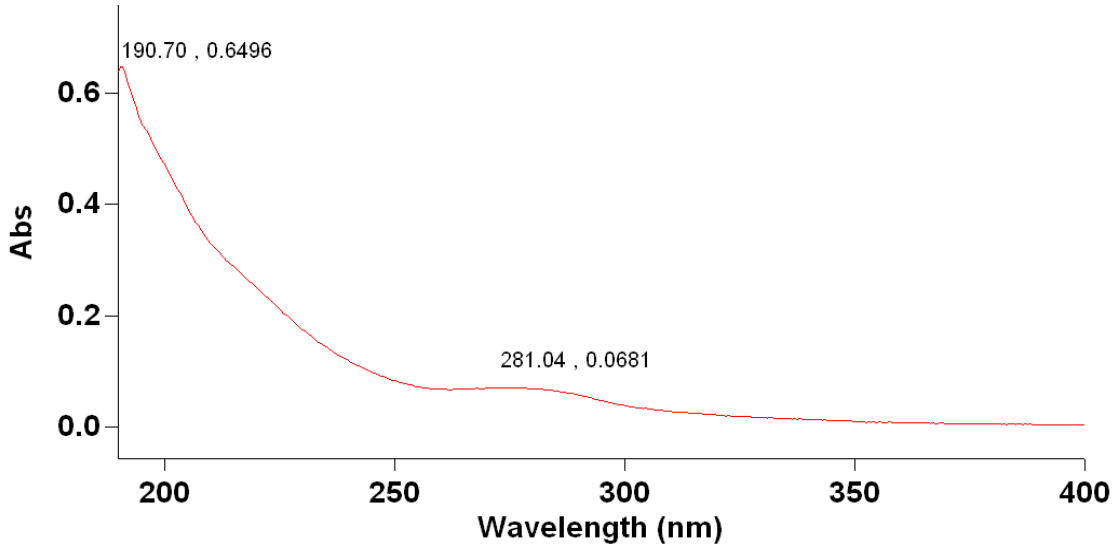


Figure S81. UV-vis spectrum of 7-bromofolipastatin (**5**) in MeOH

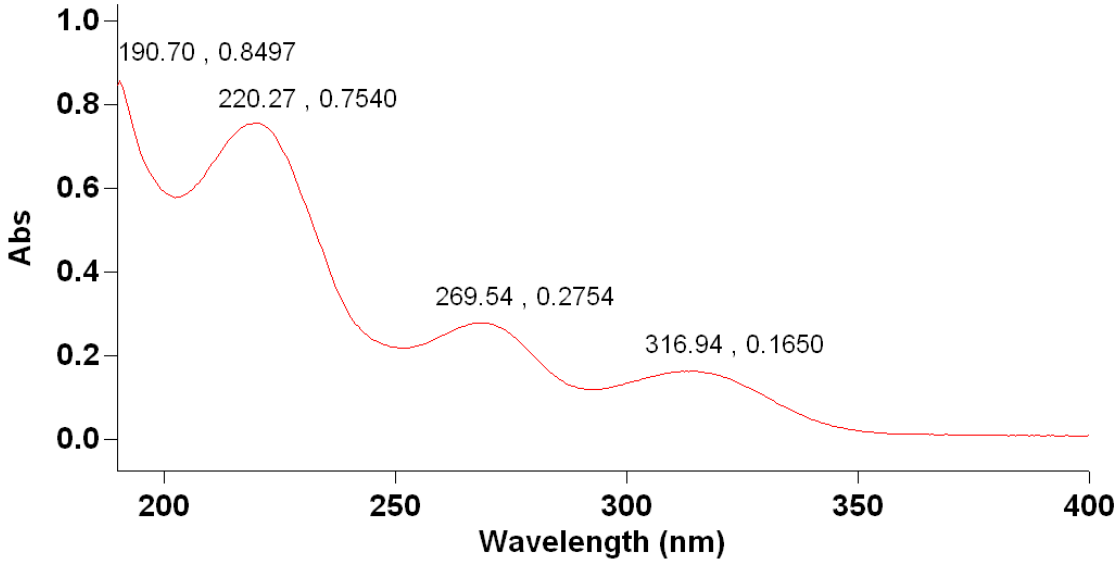


Figure S82. UV-vis spectrum of 5-bromoagonodepside B (**6**) in MeOH

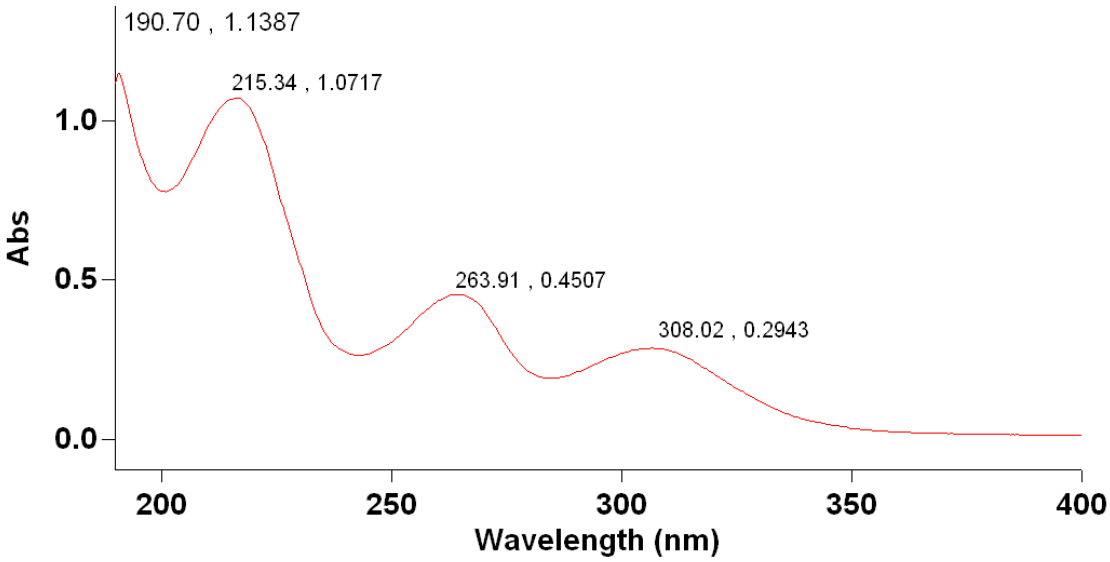


Figure S83. UV-vis spectrum of unguidepside A (**7**) in MeOH

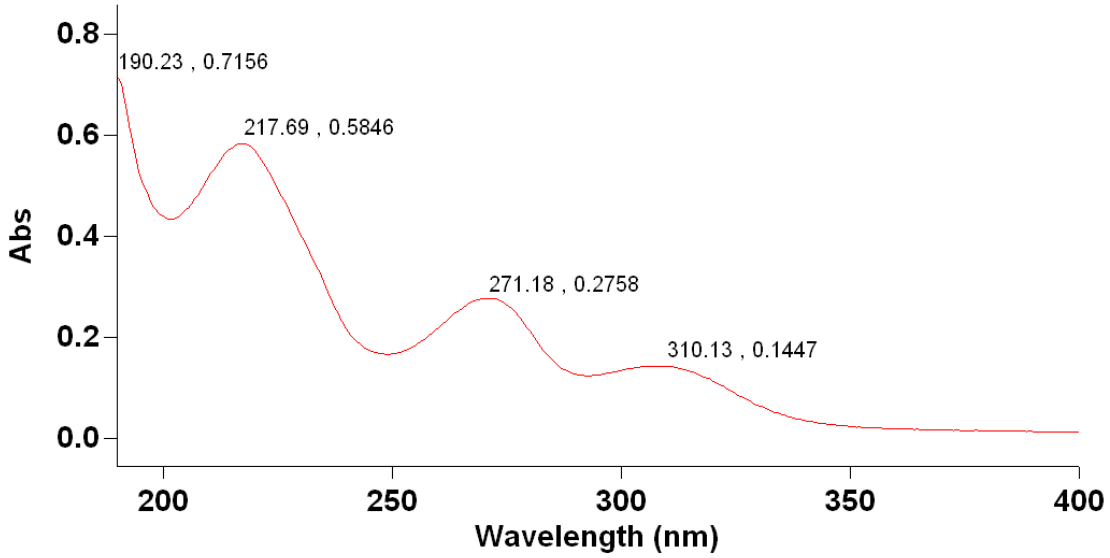


Figure S84. UV-vis spectrum of 3-bromounguidepside A (**8**) in MeOH

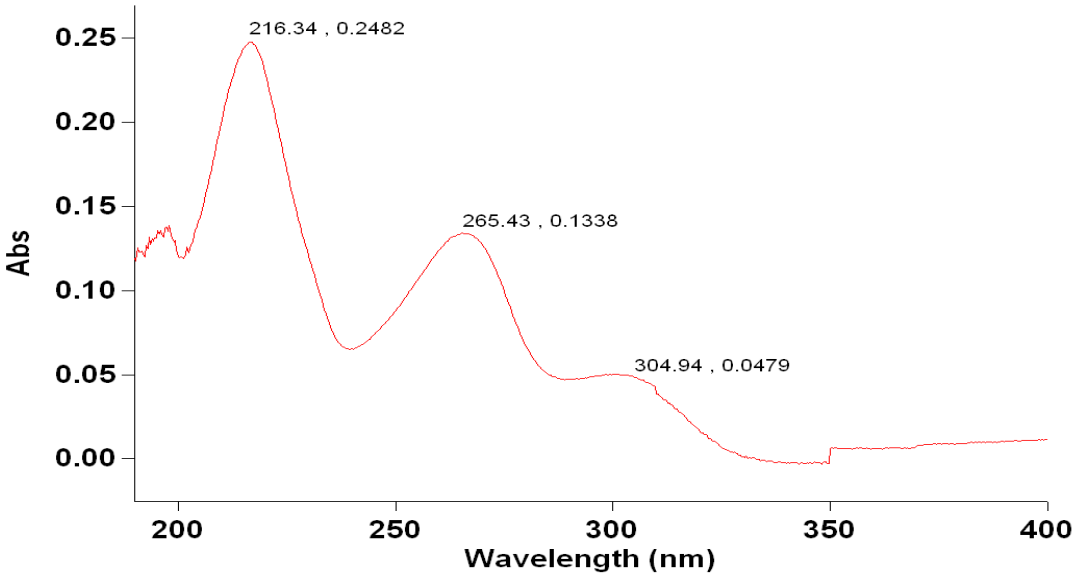


Figure S85. UV-vis spectrum of decarboxyunguidepside A (**9**) in MeOH

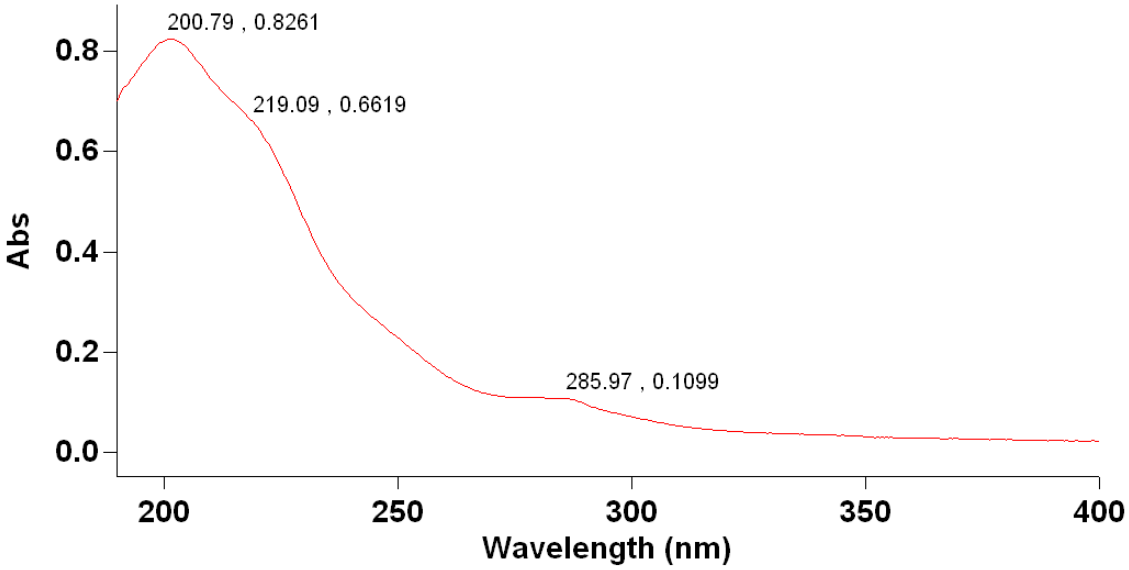


Figure S86. UV-vis spectrum of unguinolic acid (**10**) in MeOH

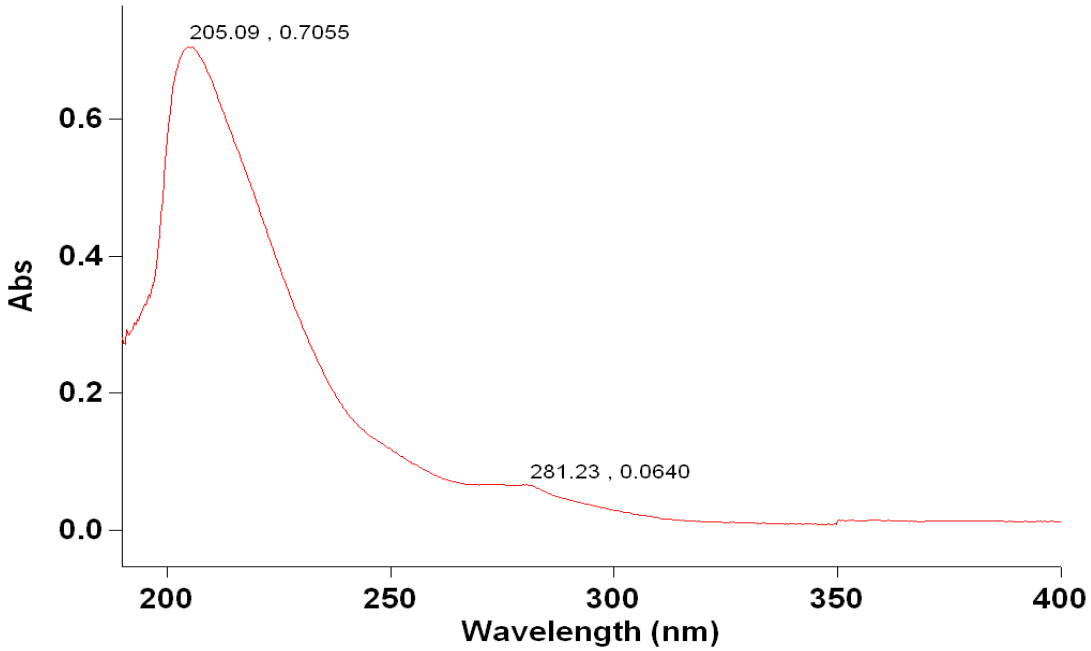


Figure S87. UV-vis spectrum of decarboxyunguinolic acid (**11**) in MeOH

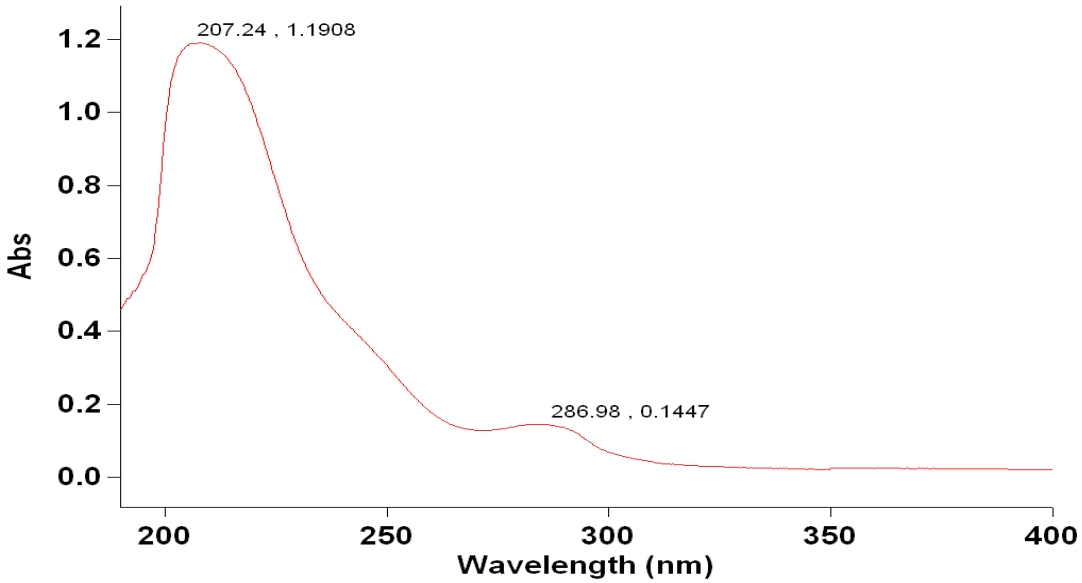


Figure S88. UV-vis spectrum of 5-chlorounguinolic acid (**12**) in MeOH

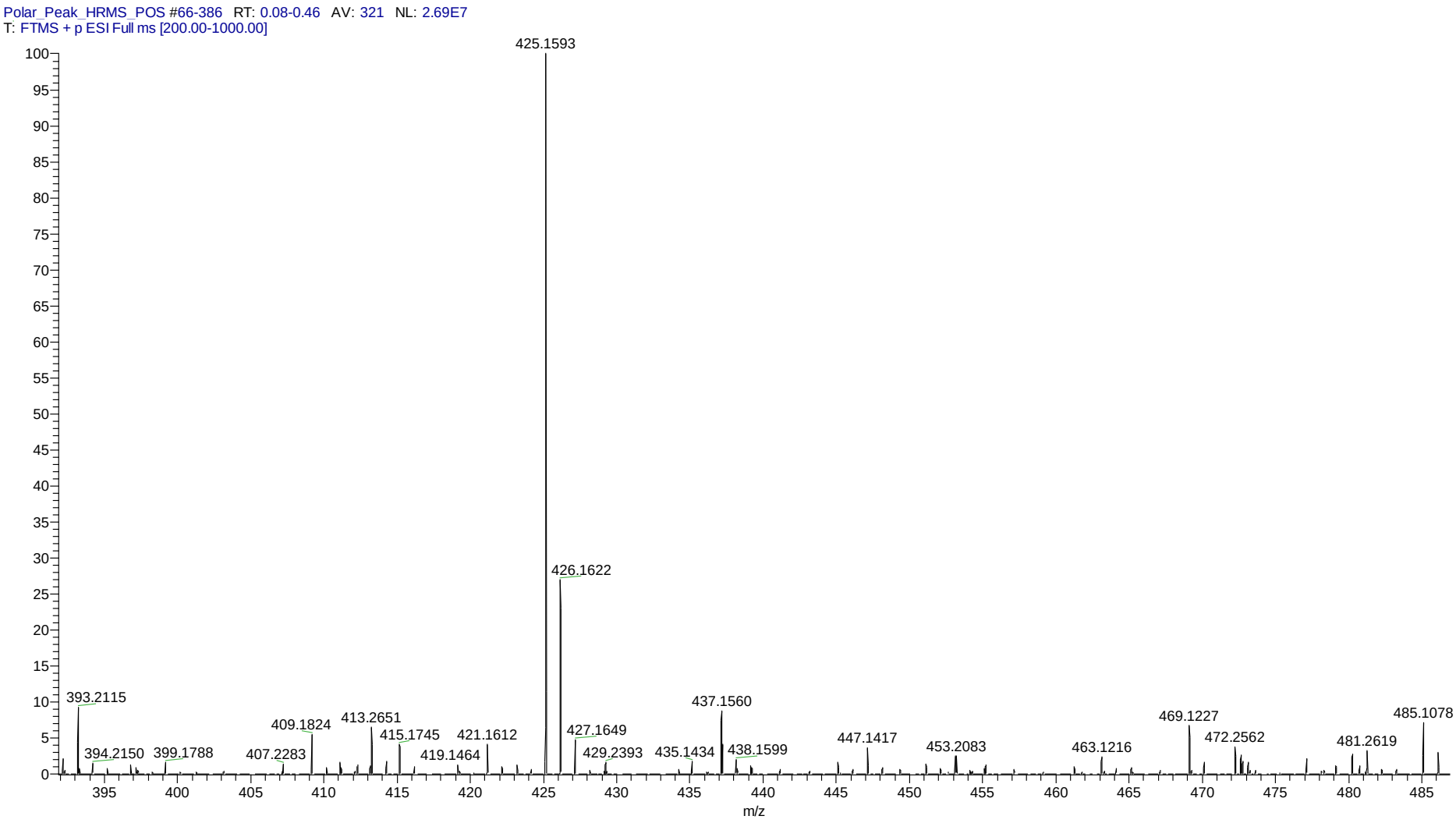


Figure S89. HR-ESI(+)-MS spectrum of 7-carboxyfolipastatin (**1**)

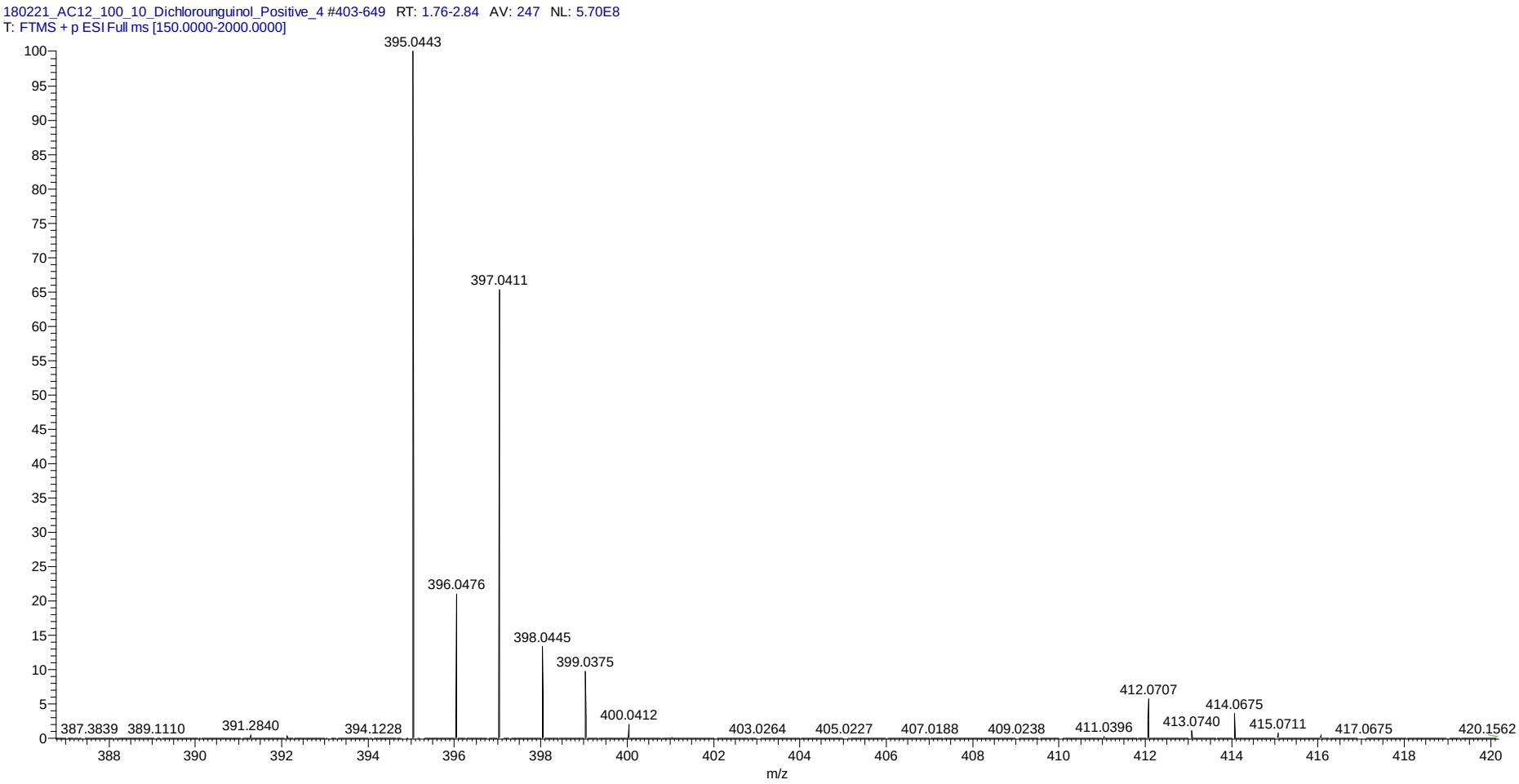


Figure S90. HR-ESI(+)-MS spectrum of 4,7-dichlorounguinol (**2**)

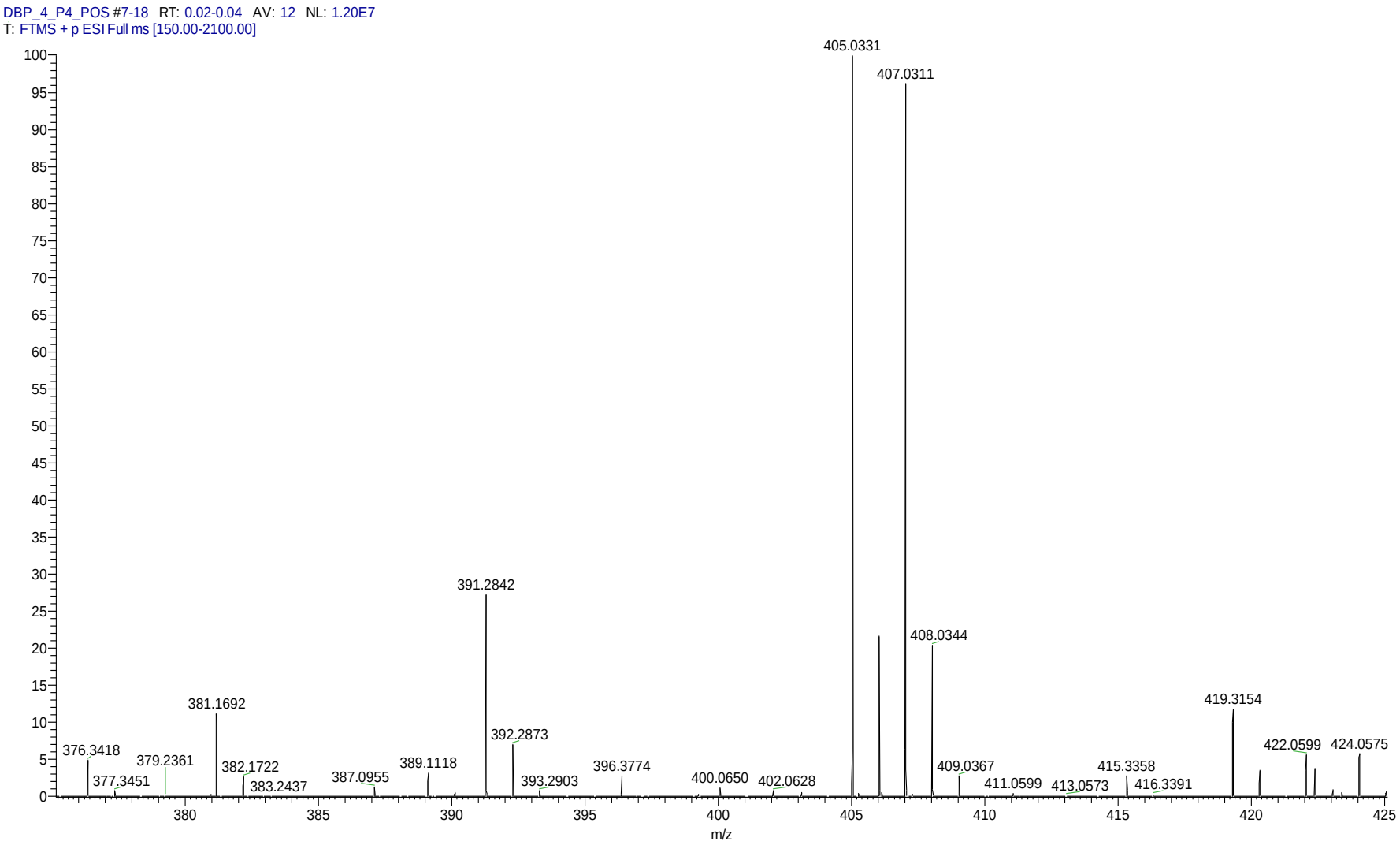


Figure S91. HR-ESI(+)-MS spectrum of 7-bromounguinol (**3**)

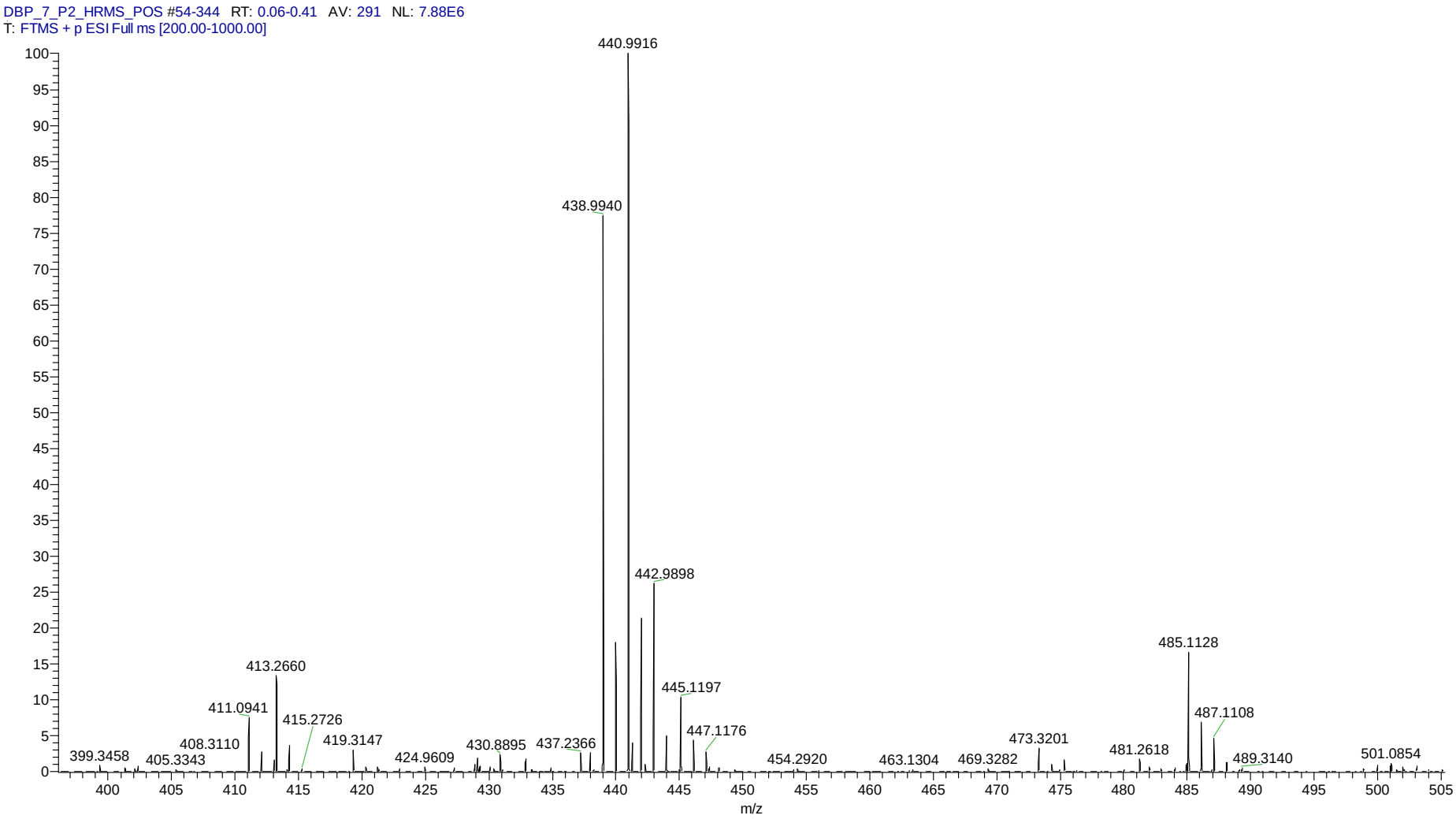


Figure S92. HR-ESI(+)-MS spectrum of 2-chloro-7-bromounguinol (**4**)

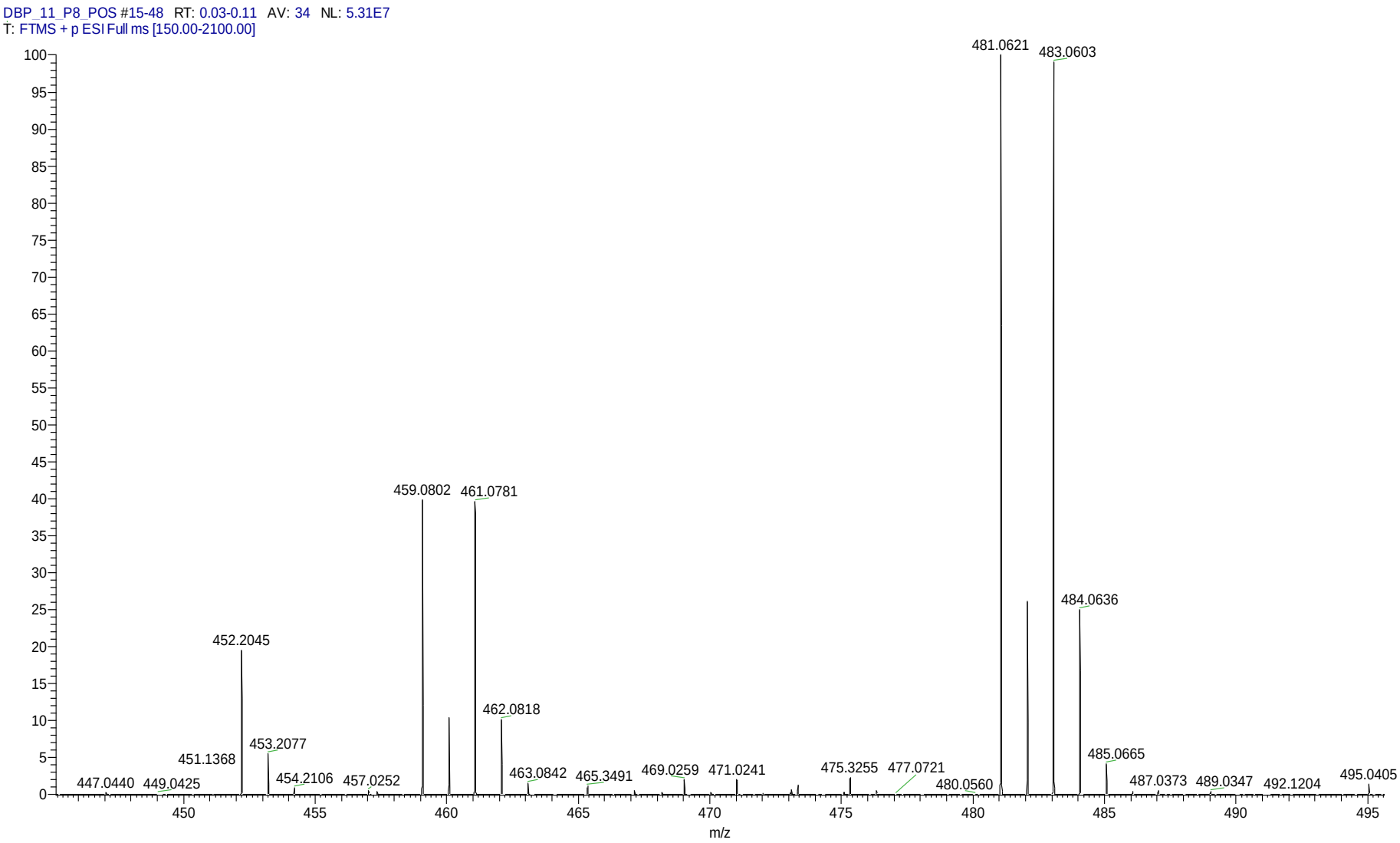


Figure S93. HR-ESI(+)-MS spectrum of 7-bromofolipastatin (**5**)

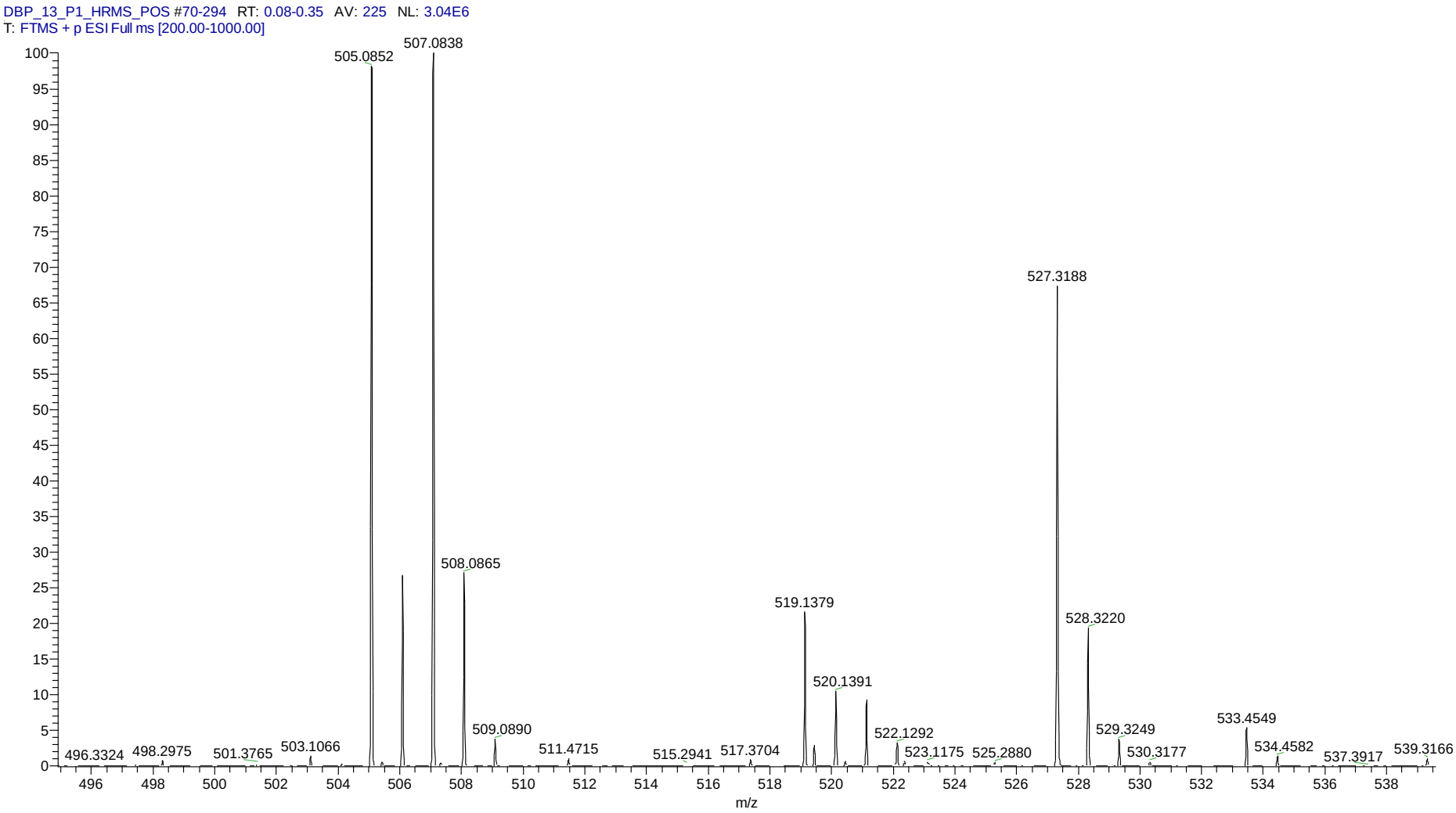


Figure S94. HR-ESI(+)-MS spectrum of 5-bromoagonodepside B (**6**)

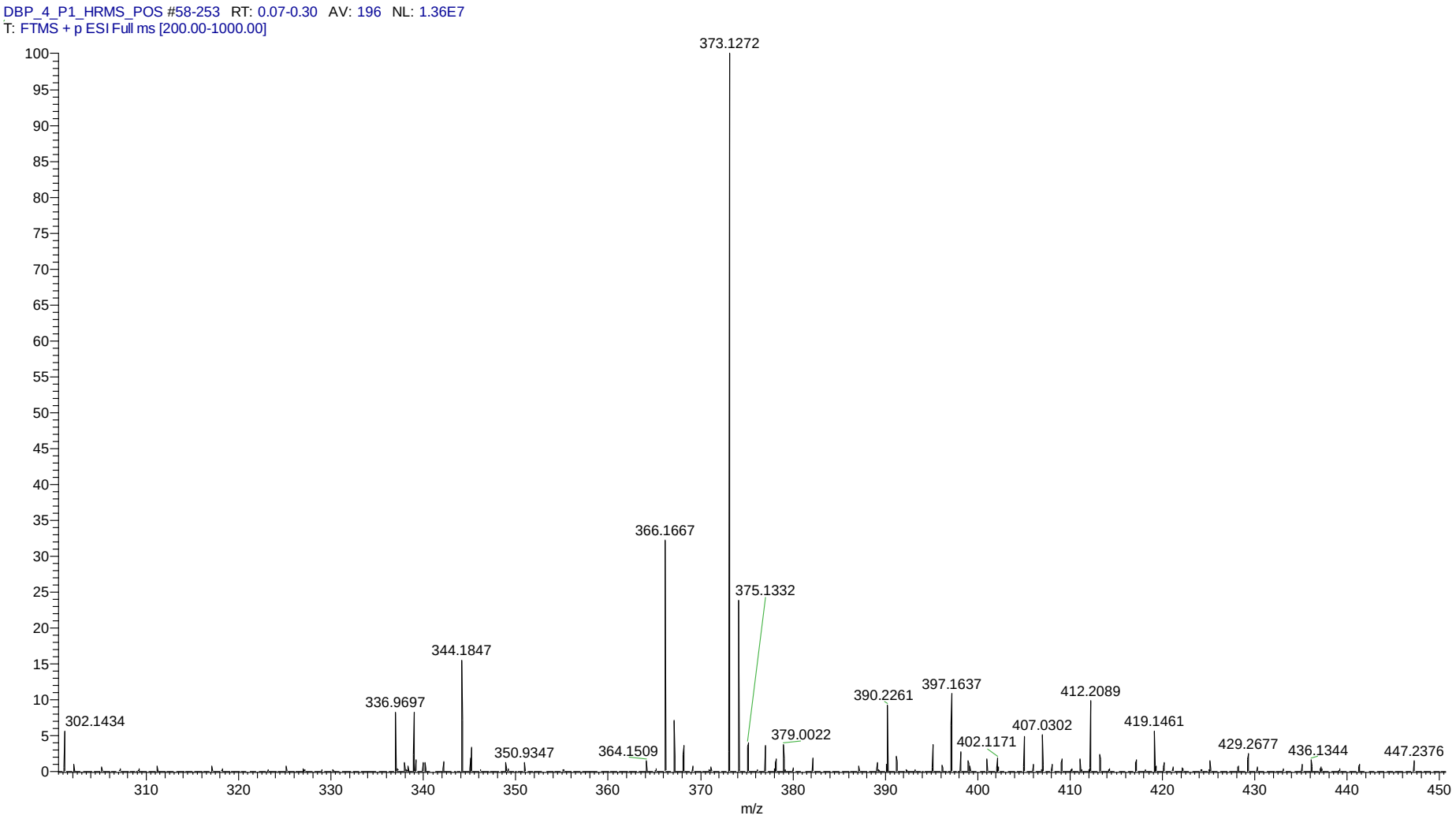


Figure S95. HR-ESI(+)-MS spectrum of unguidepside A (**7**)

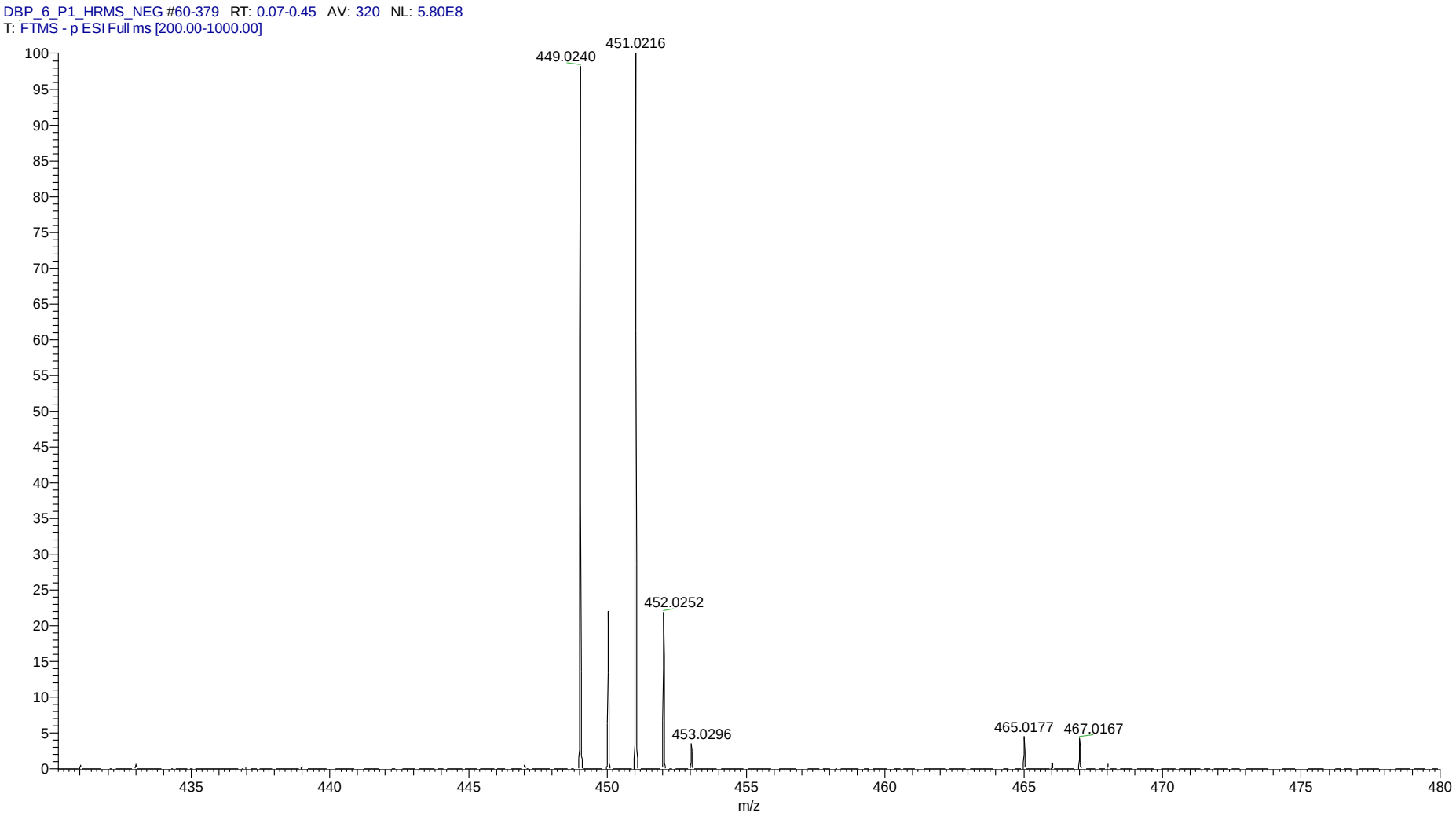


Figure S96. HR-ESI(–)-MS spectrum of 3-bromounguidepside A (**8**)

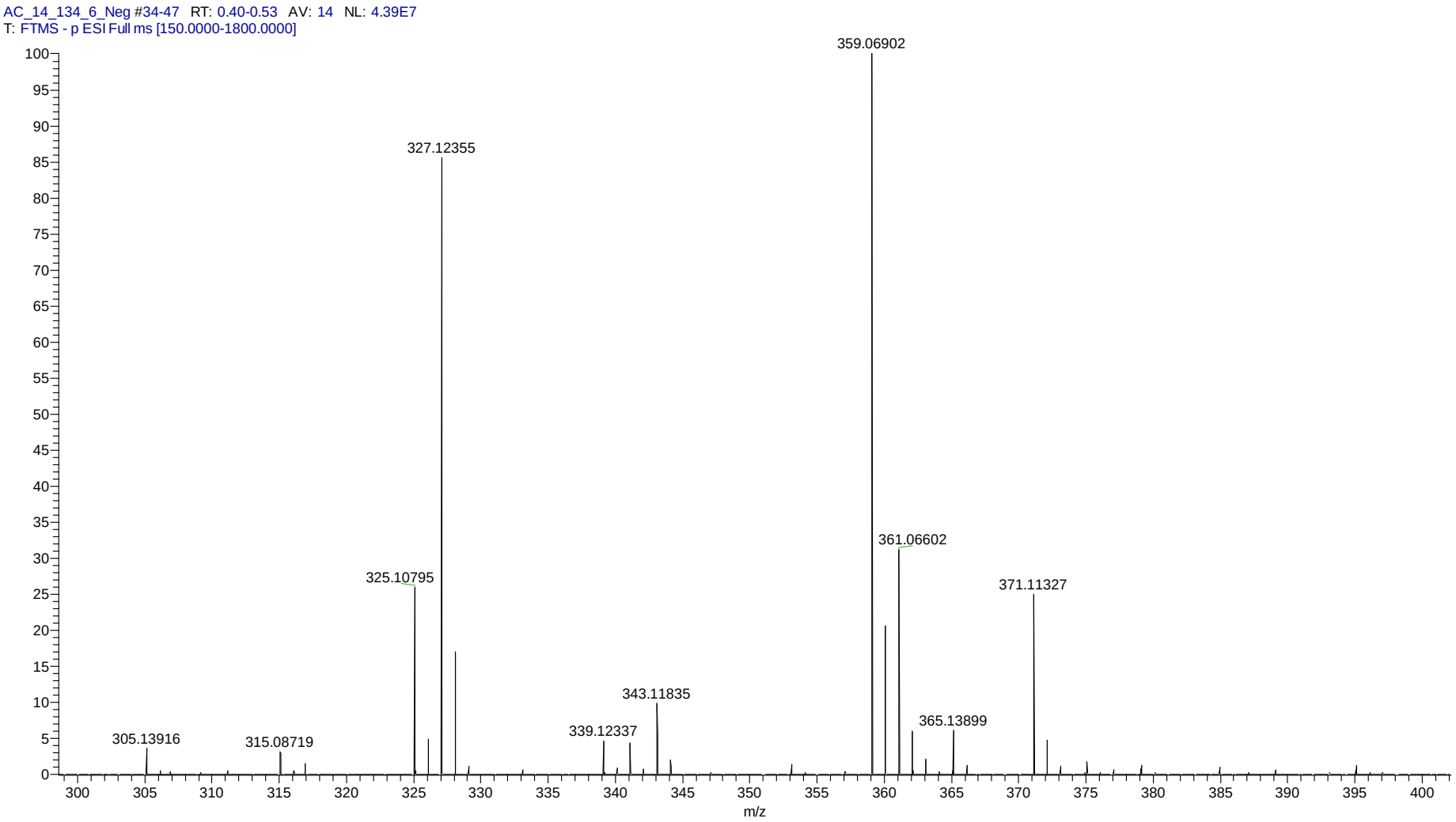


Figure S97. HR-ESI(–)-MS spectrum of decarboxyunguidepside A (**9**)

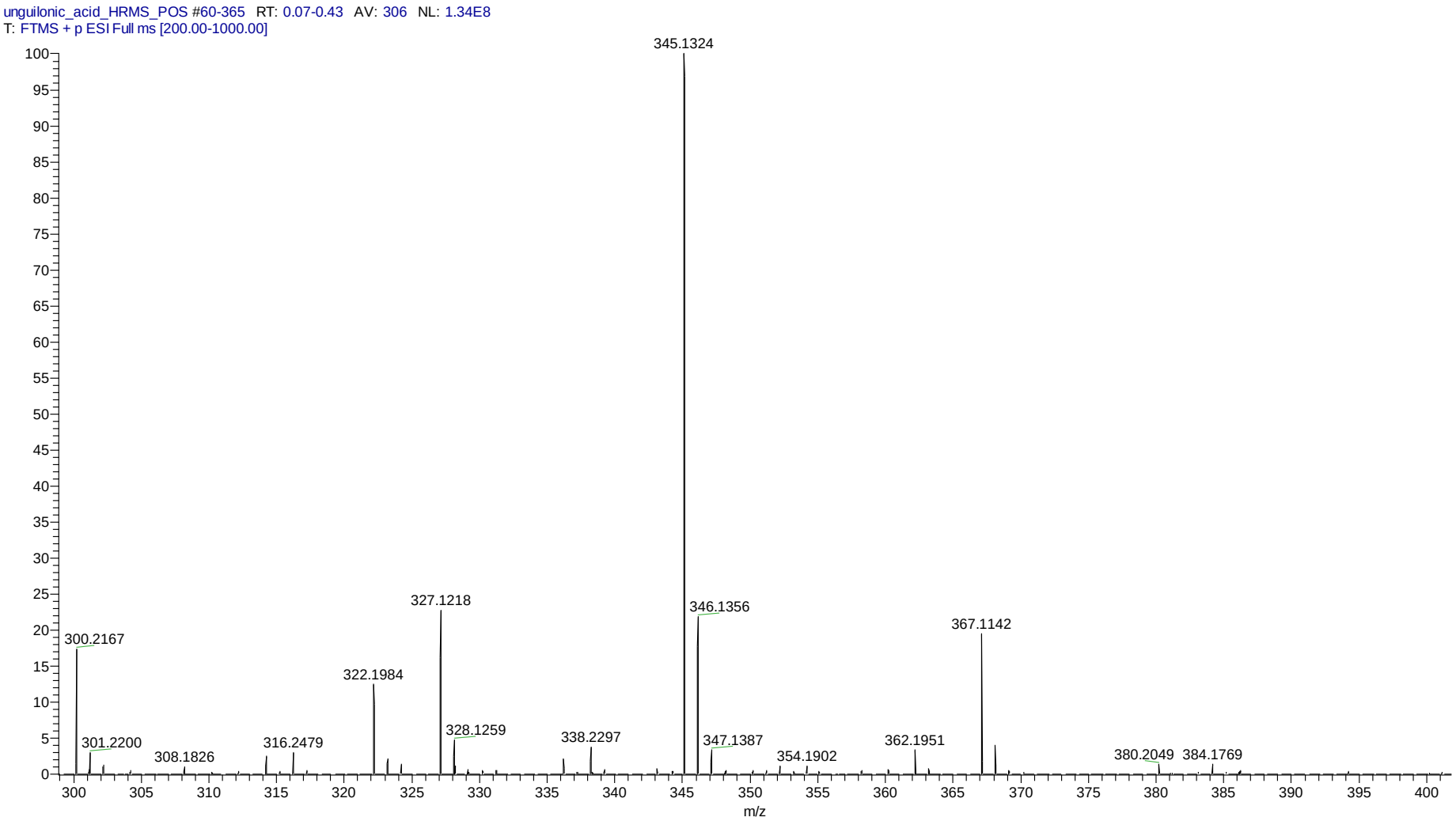


Figure S98. HR-ESI(+)-MS spectrum of unguinolic acid (**10**)

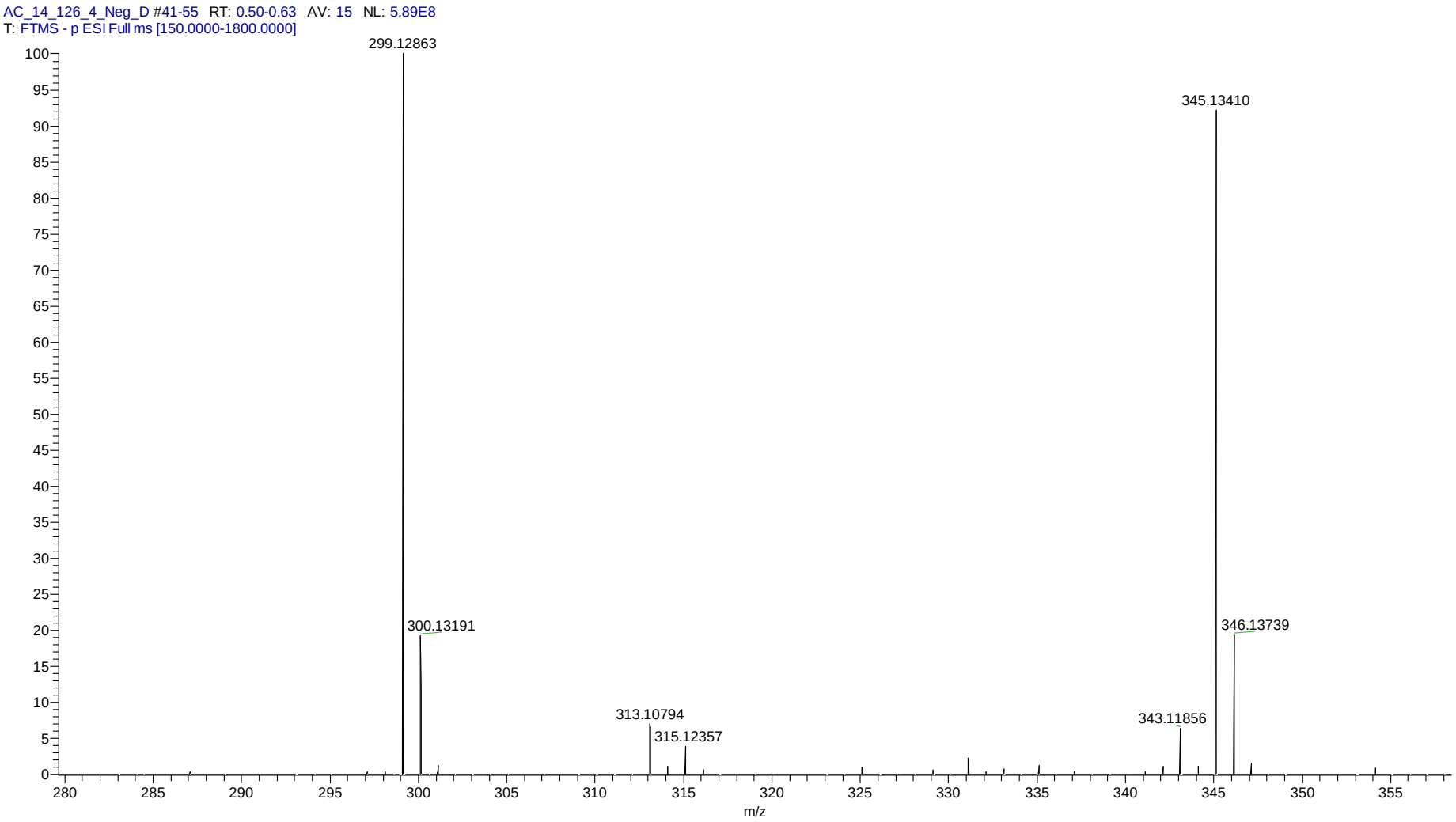


Figure S99. HR-ESI(–)-MS spectrum of decarboxyunguinolic acid (**11**)

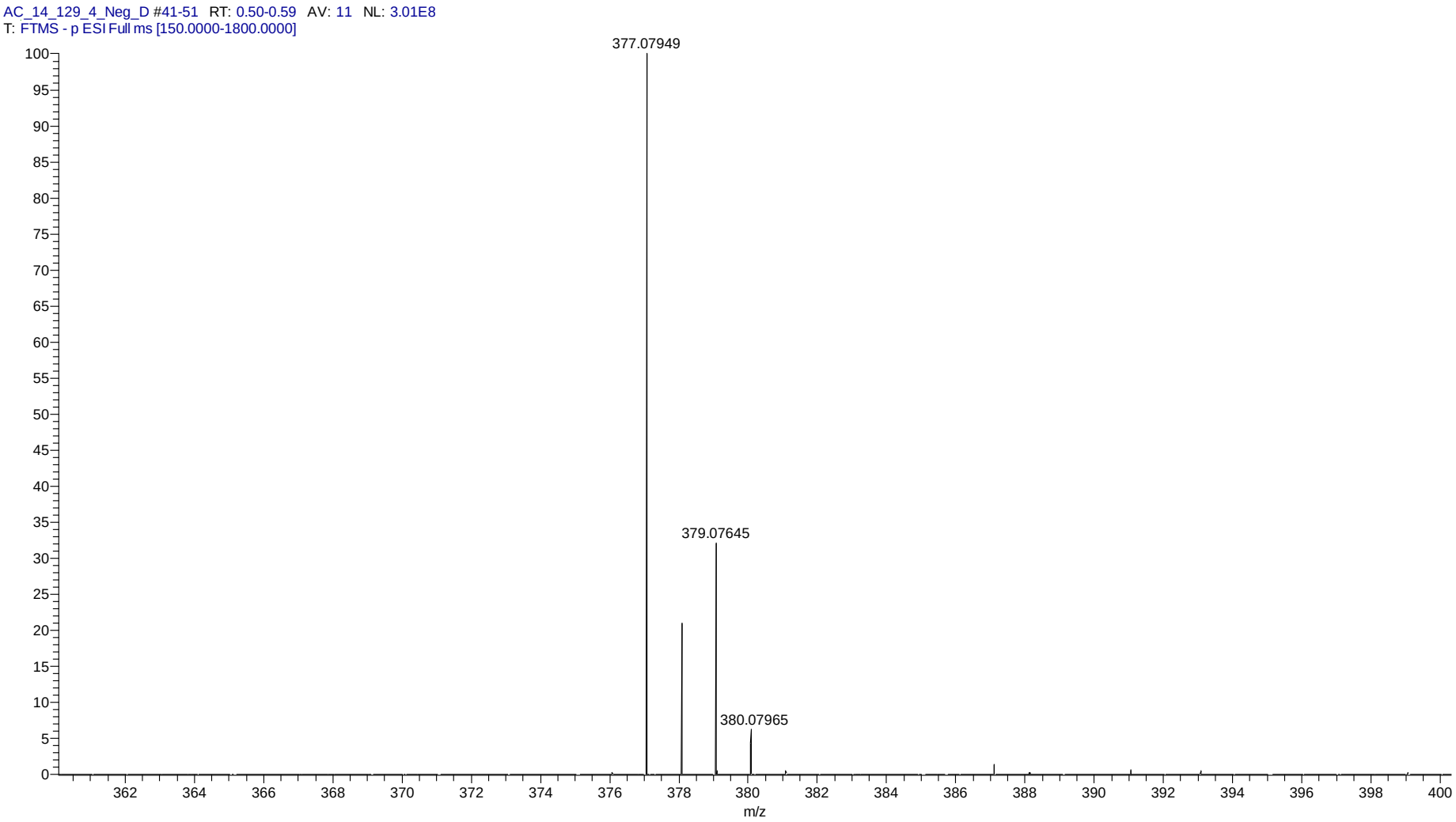


Figure S100. HR-ESI(–)-MS spectrum of 5-chlorounguinolic acid (**12**)