

Supplementary Information

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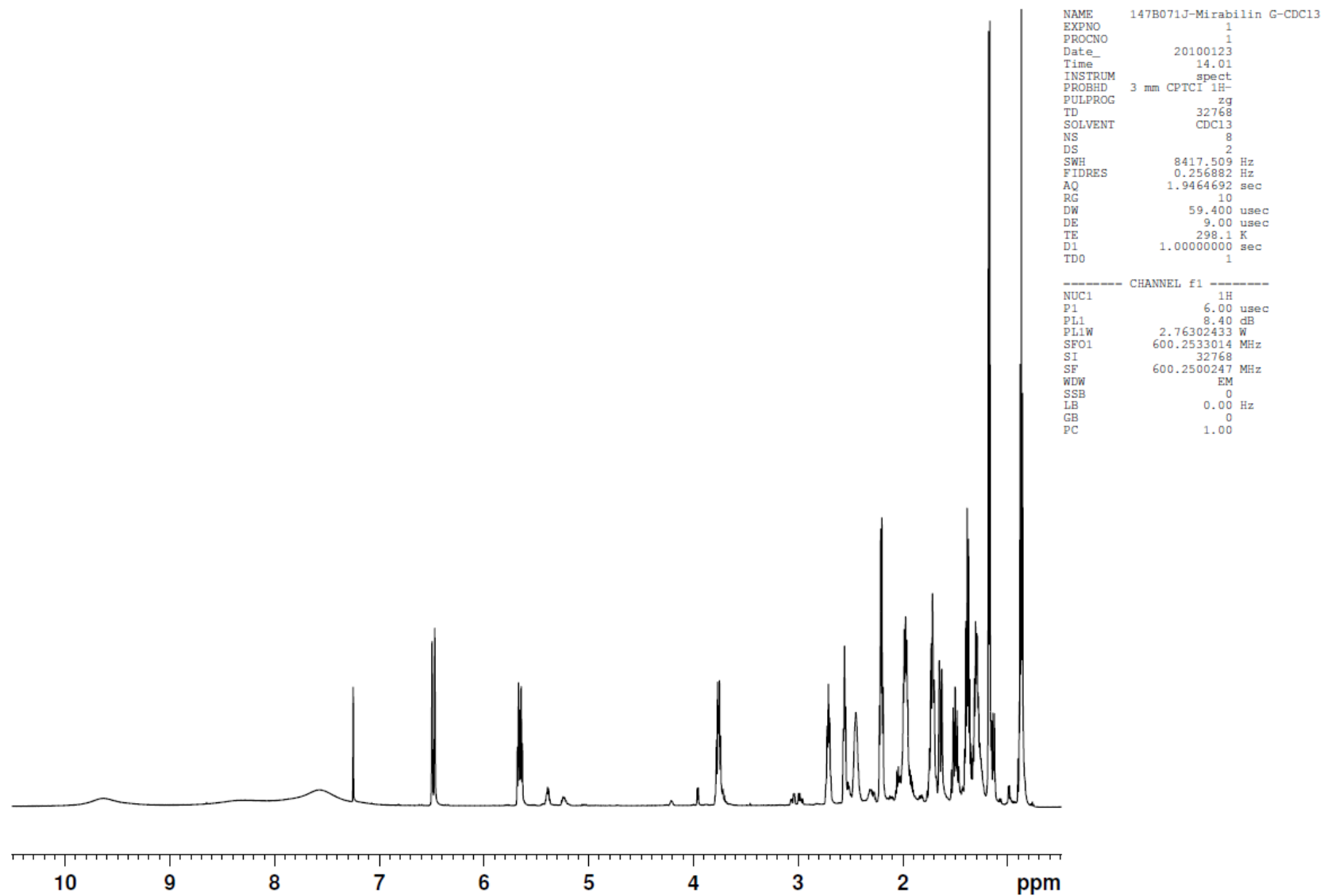
Figure S1. ^1H NMR spectrum of mirabilin G (1) naturally-occurring counterion in CDCl_3 .

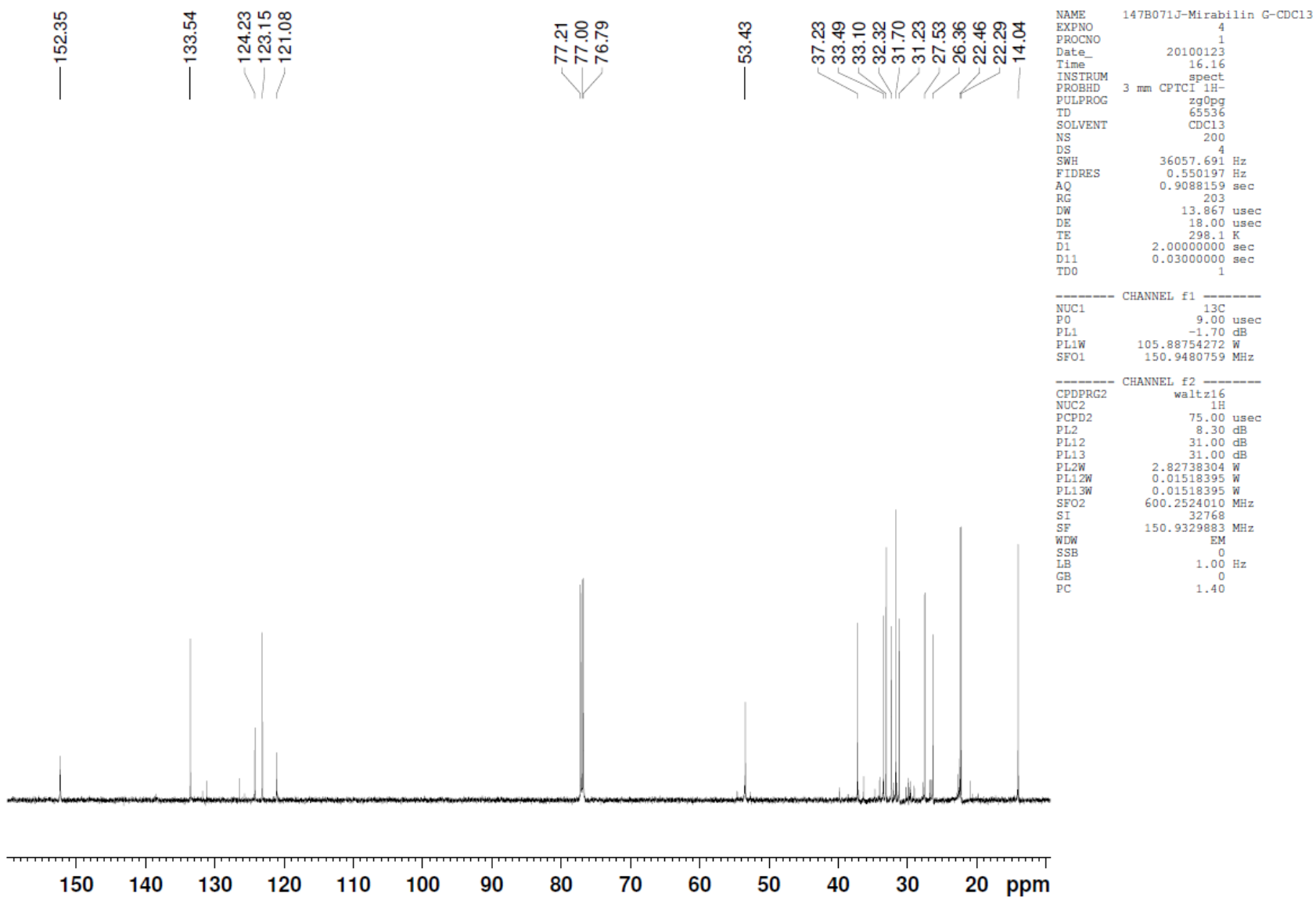
Figure S2. ^{13}C NMR spectrum of mirabilin G (1) naturally-occurring counterion in CDCl_3 .

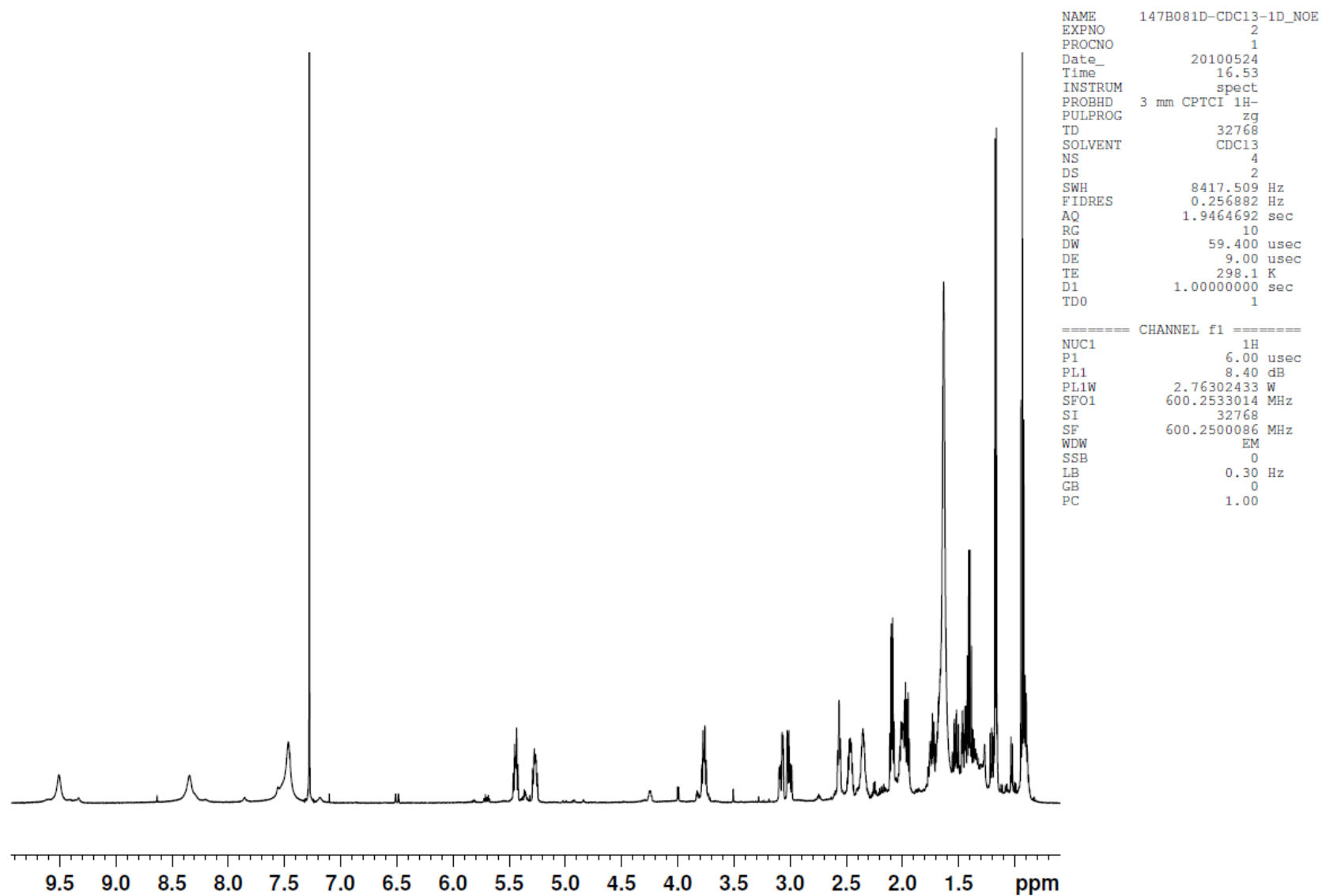
Figure S3. ^1H NMR spectrum of netamine M (2) naturally-occurring counterion in CDCl_3 .

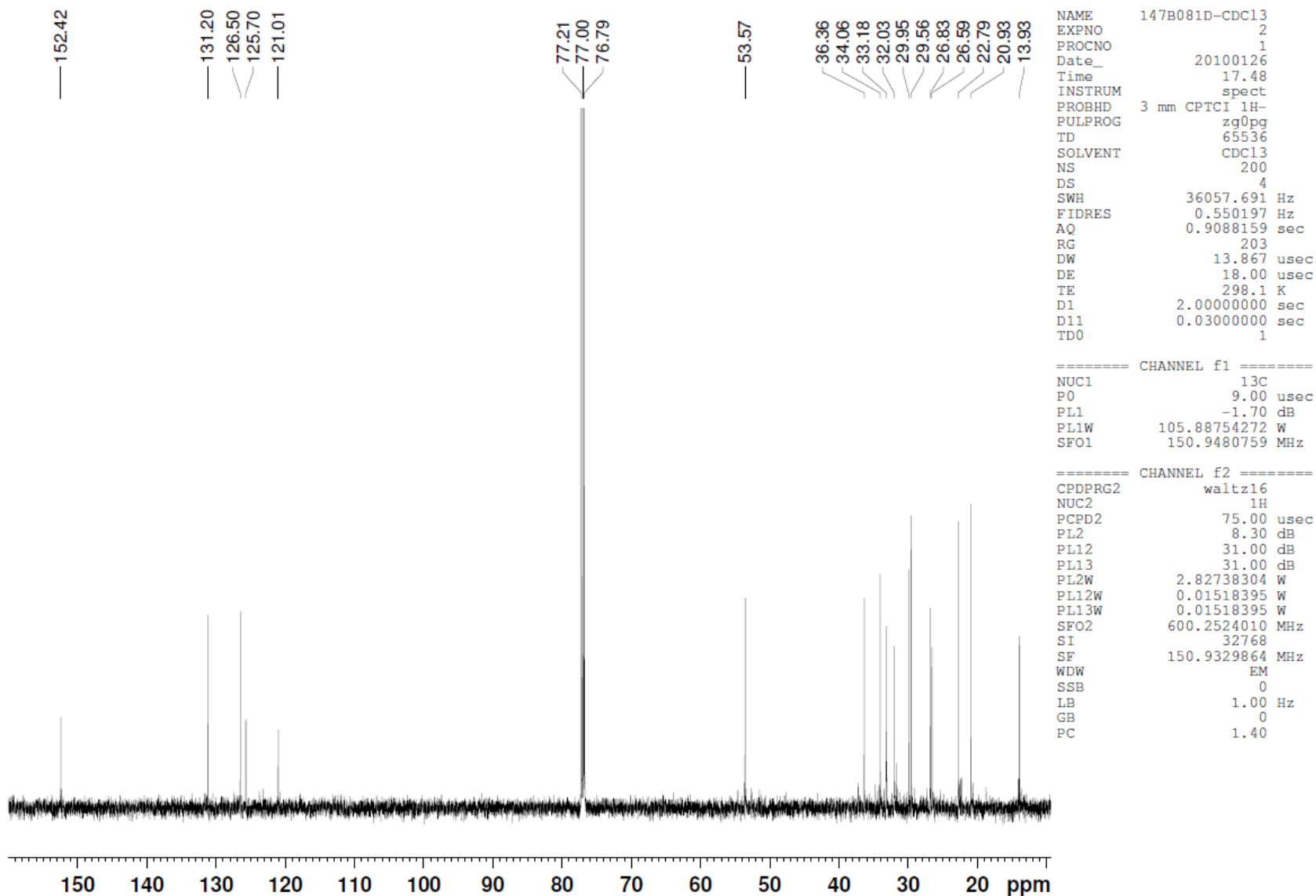
Figure S4. ^{13}C NMR spectrum of netamine M (2) naturally-occurring counterion in CDCl_3 .

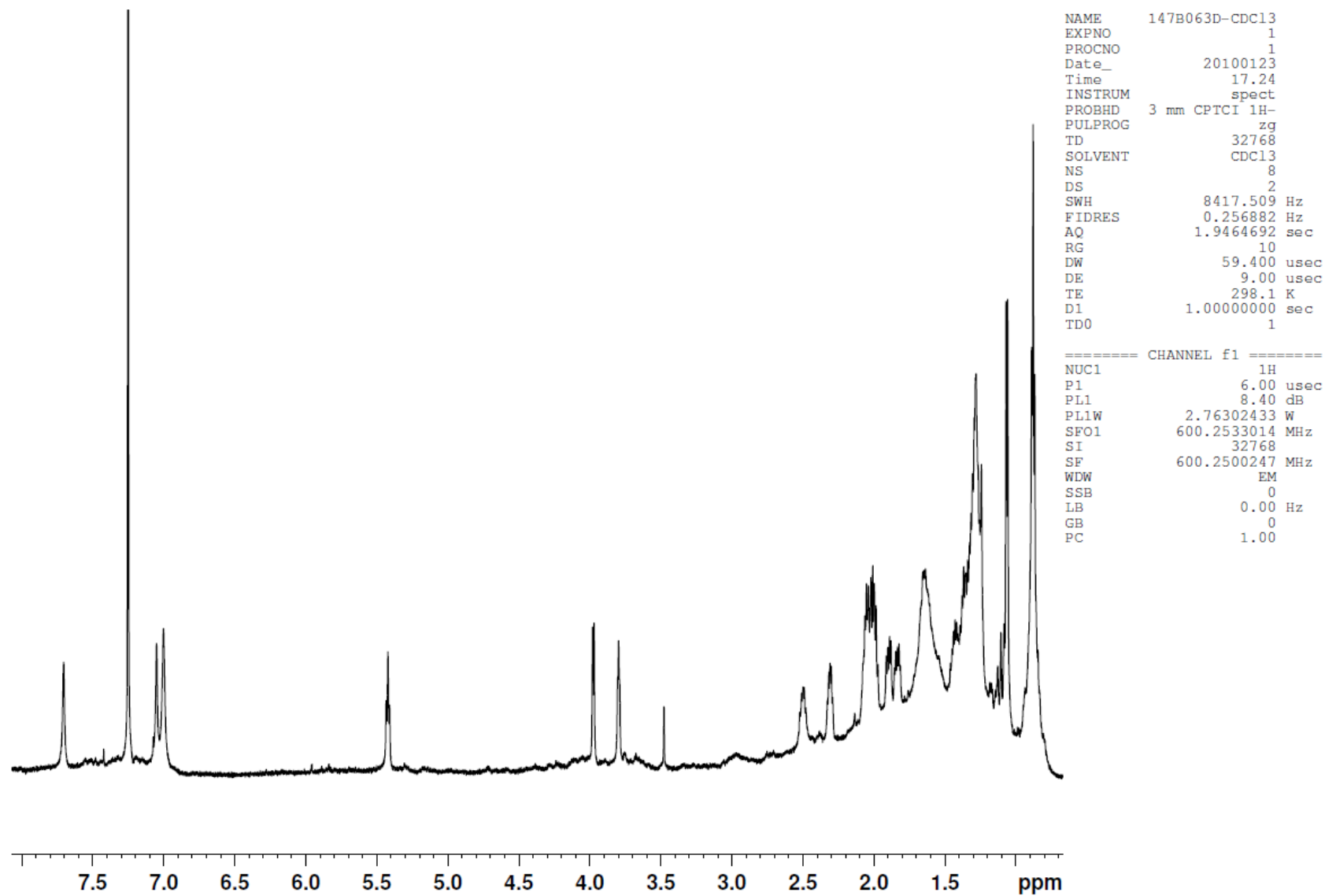
Figure S5. ^1H NMR spectrum of mirabilin K (3) trifluoroacetate salt in CDCl_3 .

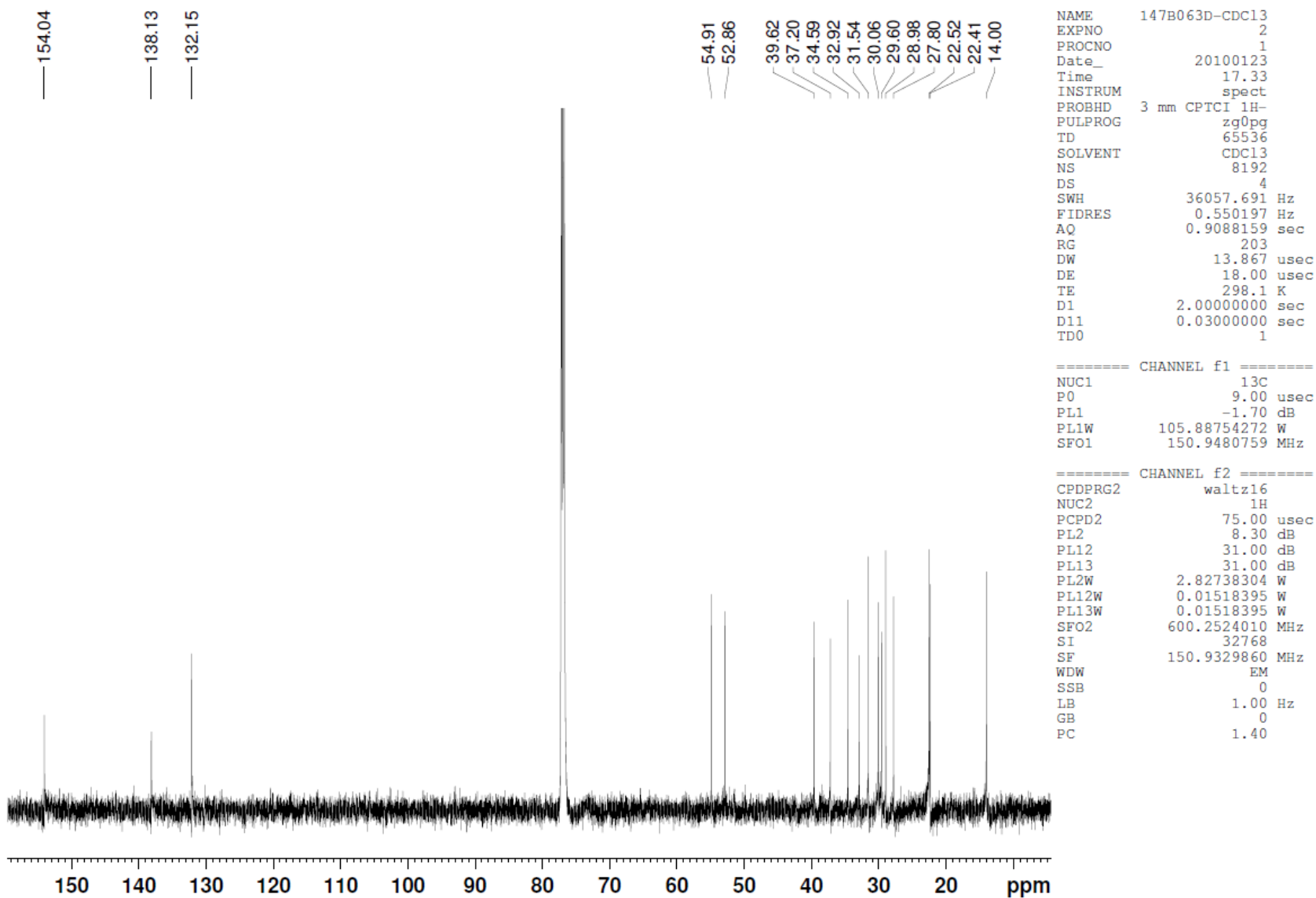
Figure S6. ^{13}C NMR spectrum of mirabilin K (3) trifluoroacetate salt in CDCl_3 .

Figure S7. ROESY spectrum of mirabilin K (3) trifluoroacetate salt in CDCl₃.

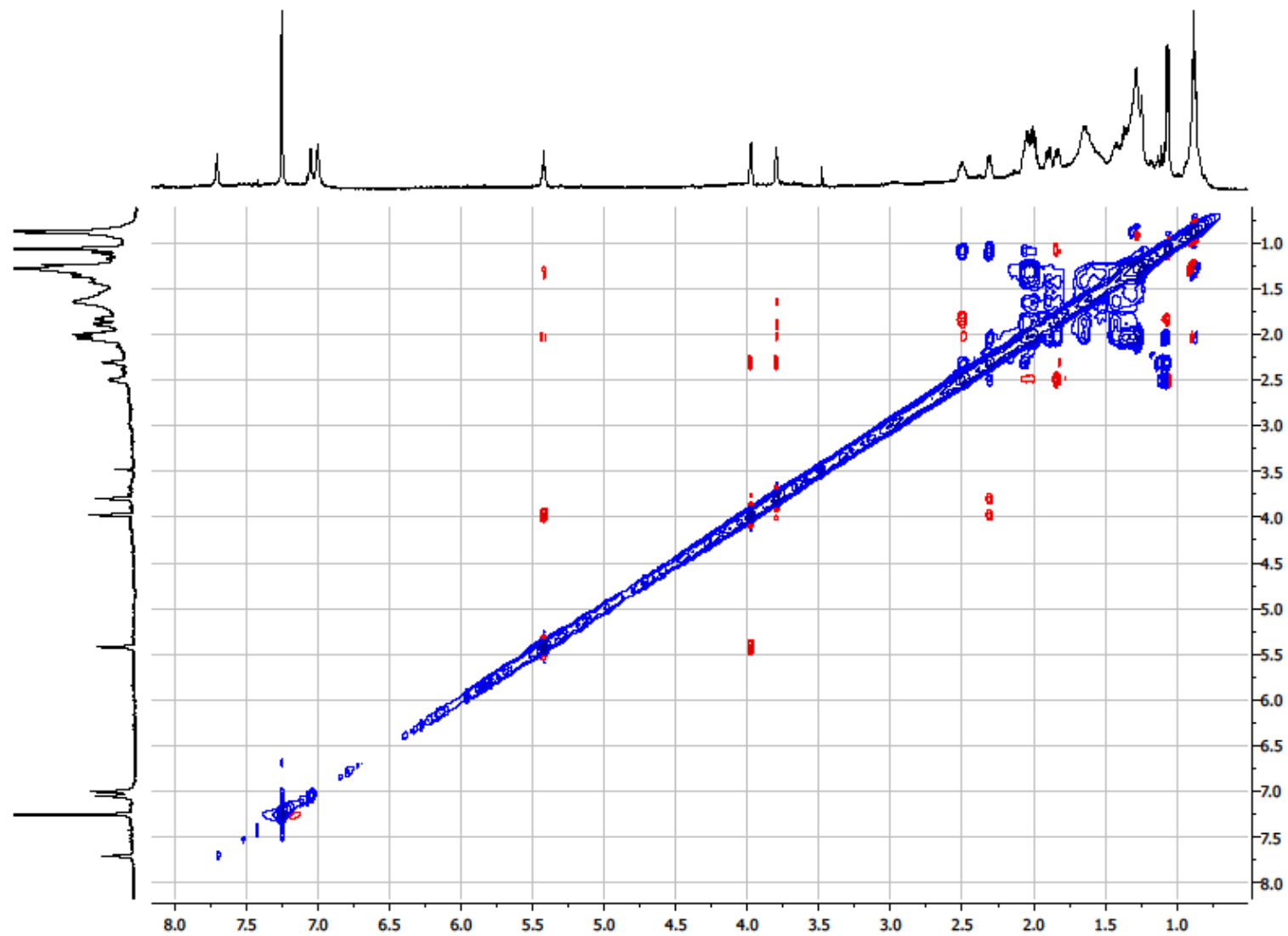
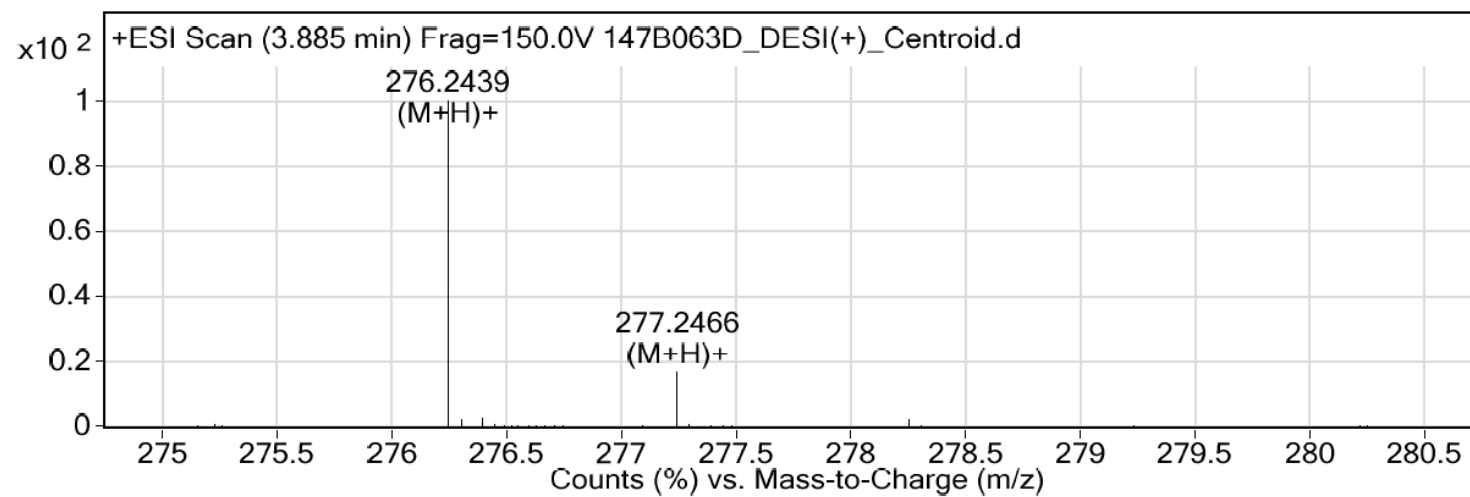


Figure S8. HRESIMS spectrum of mirabilin K (3) trifluoroacetate salt.

Measured Mass	Molecular Formula	Calculated Mass	ppm	DBE
276.2439	C ₁₇ H ₃₀ N ₃	276.2434	1.8	5

Table S1. ^1H (600 MHz) and ^{13}C (150 MHz) data in CDCl_3 for mirabilin G (**1**) naturally-occurring counterion, netamine M (**2**) naturally-occurring counterion, and mirabilin K (**3**) trifluoroacetate salt.

Position	1		2		3	
	δ_{C} , Type	δ_{H} (J in Hz)	δ_{C} , Type	δ_{H} (J in Hz)	δ_{C} , Type	δ_{H} (J in Hz)
1-N		9.63 br s		9.51 br s		7.71 br s
2	152.4, C		152.4, C		154.0, C	
C2-NH ₂		7.56 2H, br s		7.46 2H, br s		7.00 2H, br s
3-N		8.34 br s		8.35 br s		7.05 br s
4	53.4, CH	3.76 dt (10.3, 6.8)	53.6, CH	3.73 dt (10.4, 6.9)	52.9, CH	3.80 br t (3.9)
5a	32.3, CH ₂	1.98 m	32.0, CH ₂	1.98 m	32.9, CH ₂	1.89 m
5b		1.50 m		1.49 m		1.64 m
6a	26.4, CH ₂	1.72 m	26.8, CH ₂	1.71 m	29.6, CH ₂	1.99 m
6b				1.65 m		1.43 m
7	33.5, CH	2.45 m	34.1, CH	2.43 m	34.6, CH	2.05
8a	31.2, CH ₂	1.98 m	33.2, CH ₂	1.93 ddd (14.1, 6.3, 6.3)	37.2, CH ₂	1.84 ddd (13.5, 5.0, 5.0)
8b		1.64 m		1.42 ddd (14.1, 4.4, 4.4)		1.10 ddd (13.5, 12.6, 12.6)
9	27.5, CH	2.71 dq (7.2, 7.3)	30.0, CH	2.32 m	30.0, CH	2.50 m
9-Me	22.5, CH ₃	1.18 3H, d (7.2)	20.9, CH ₃	1.14 3H, d (7.3)	22.4, CH ₃	1.06 3H, d (6.8)
10	124.2, C		125.7, C		138.1, C	
11	121.1, C		121.0, C		54.9, CH	3.98 d (6.3)
12	37.2, CH	2.56 br t (6.8)	36.4, CH	2.53 br t (6.9)	39.6, CH	2.31 m
1'a	123.2	6.48 d (15.6)	26.6, CH ₂	3.06 dd (15.6, 5.9)	132.2, C	5.42 br t (7.1)
1b'				2.98 dd (15.6, 8.5)		
2'	133.5, CH	5.66 dt (6.9, 15.5)	126.5, CH	5.25 m	27.8, CH ₂	2.02 2H, m
3'	33.1, CH ₂	2.21 2H, m	131.2, CH	5.41 m	29.6, CH ₂	1.24 2H, m
4'	31.7, CH ₂	1.38 2H, m	29.6, CH ₂	2.06 2H, m	31.5, CH ₂	1.26 2H, m
5'	22.3, CH ₂	1.30 2H, m	22.8, CH ₂	1.37 2H, m	22.5, CH ₂	1.28 2H, m
6'	14.0, CH ₃	0.87 3H, t (7.2)	13.9, CH ₃	0.90 3H, t (7.3)	14.0, CH ₃	0.88 3H, t (6.8)