

Supporting information

Isolation of inohanalactone, a γ -butyrolactone, from *Nocardia inohanensis* IFM0092^T

Natsumi Kobayashi,¹ Yasumasa Hara,¹ Midori A. Arai,¹ Shoko Hara,¹ Tohru Gonoï,² Takashi Yaguchi,² and Masami Ishibashi^{1*}

¹ Graduate School of Pharmaceutical Sciences, Chiba University, 1-8-1 Inohana, Chuo-ku, Chiba 260-8675, Japan. ² Medical Mycology Research Center, Chiba University, 1-8-1 Inohana, Chuo-ku, Chiba 260-8673, Japan. E-mail: mish@chiba-u.jp

Table S1 Comparison of chemical shifts of inohanalactone (**1**) and pseudonocardide A.

Figure S1–S6 1D and 2D NMR spectra recorded for **1**.

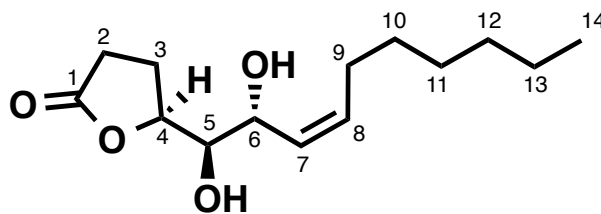
Table S1 Comparison of chemical shifts of inohanalactone (**1**) and pseudonocardide A [11].

position	δ_H (J in Hz)		δ_C	
	inohanalactone (1)	pseudonocardide A ^[11]	inohanalactone (1)	pseudonocardide A ^[11]
1			177.4	176.9
2	2.51 m	2.53 dd (8.8, 17.8) 2.62-2.56 m	28.4	27.8
3	2.31-2.27 m 2.37-2.32 m	2.31-2.26 m 2.38-2.33 m	22.3	22.1
4	4.59 dt (5.5, 6.9)	4.61 q (6.9)	79.9	79.4
5	3.85 t (5.5)	3.87 t (5.2)	74.3	73.6
6	4.56 dd (9.3, 5.5)	4.58 dd (9.0, 5.3)	68.1	67.5
7	5.48 ddd (10.9, 9.3, 1.4)	5.50 t (10.1)	126.6	126.0
8	5.72 dt (10.9, 8.3)	5.74 dt (10.8, 7.5)	136.7	135.9
9	2.19-2.08 m	2.12 dd (6.9, 14.4) 2.19 q (7.2)	27.7	27.3
10	1.33 m	1.38-1.35 m	31.7	28.3
11	1.33 m	1.32-1.25 m	22.9	28.8
12	0.90 t (7.6)	1.32-1.25 m	13.9	31.0
13		1.32-1.25 m		21.9
14		0.89 t (6.8)		13.4

Measured in CDCl₃, 600 MHz (¹H), 150 MHz (¹³C)

δ in ppm, *J* in Hz.

The chemical shifts of pseudonocardide A were taken from ref.11



pseudonocardide A

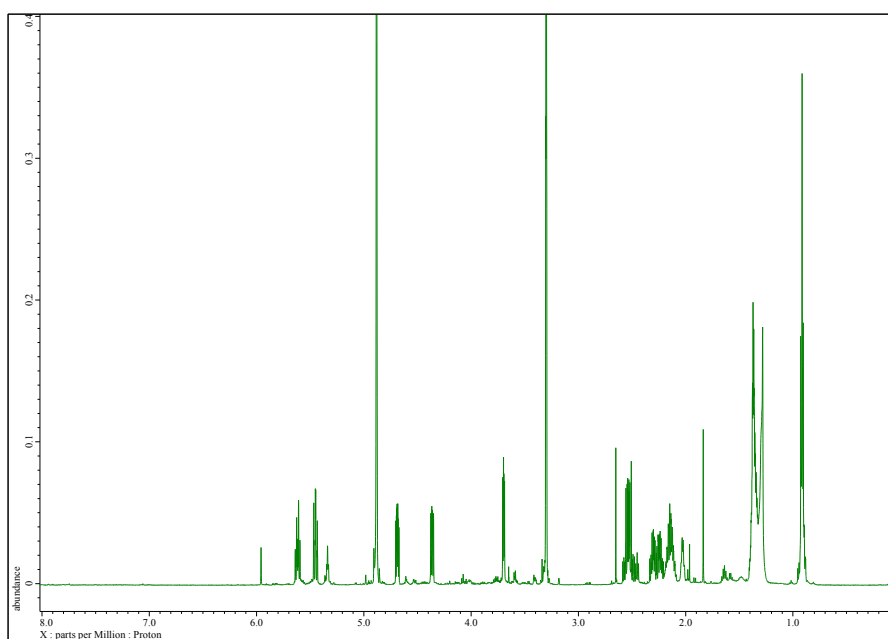


Figure S1 ¹H NMR spectrum recorded for **1** (CD₃OD, 600 MHz)

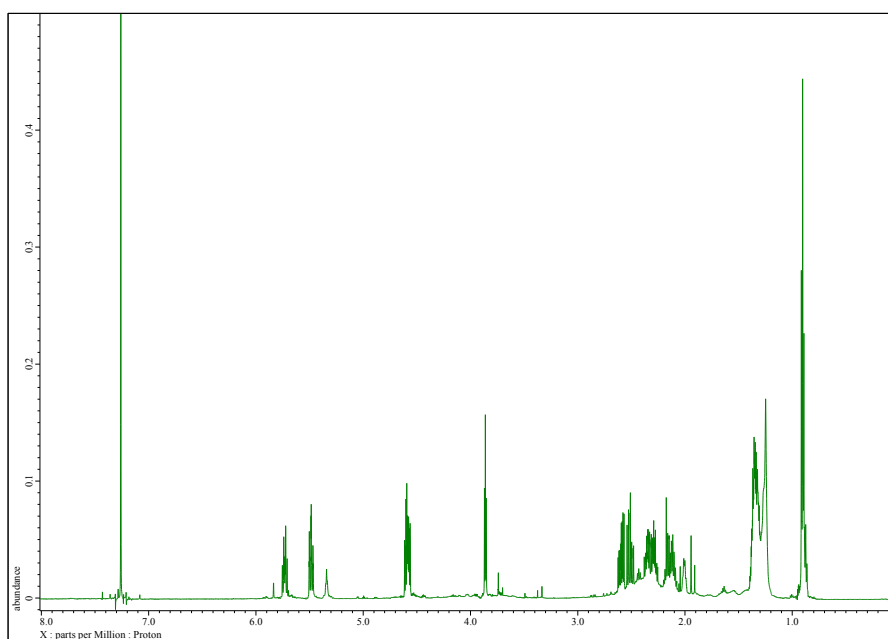


Fig. S2 ¹H NMR spectrum recorded for **1** (CDCl₃, 600 MHz).

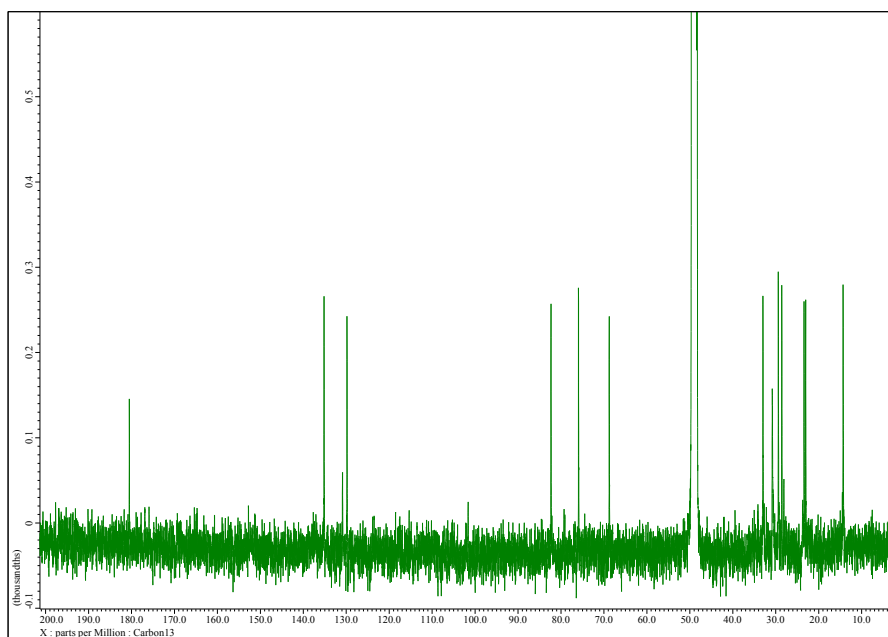


Fig. S3 ^{13}C NMR spectrum recorded for **1** (CD_3OD , 150 MHz).

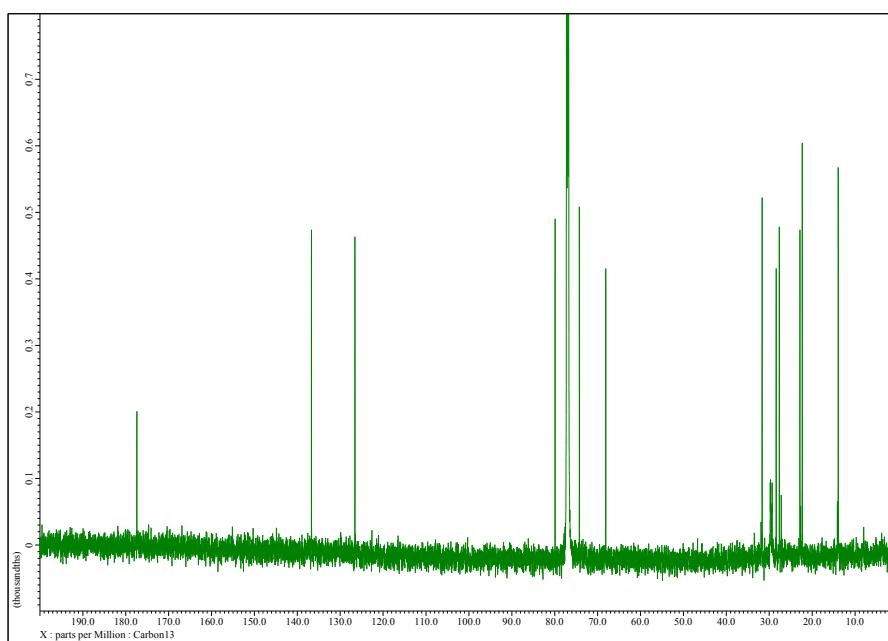


Fig. S4 ^{13}C NMR spectrum recorded for **1** (CDCl_3 , 150 MHz).

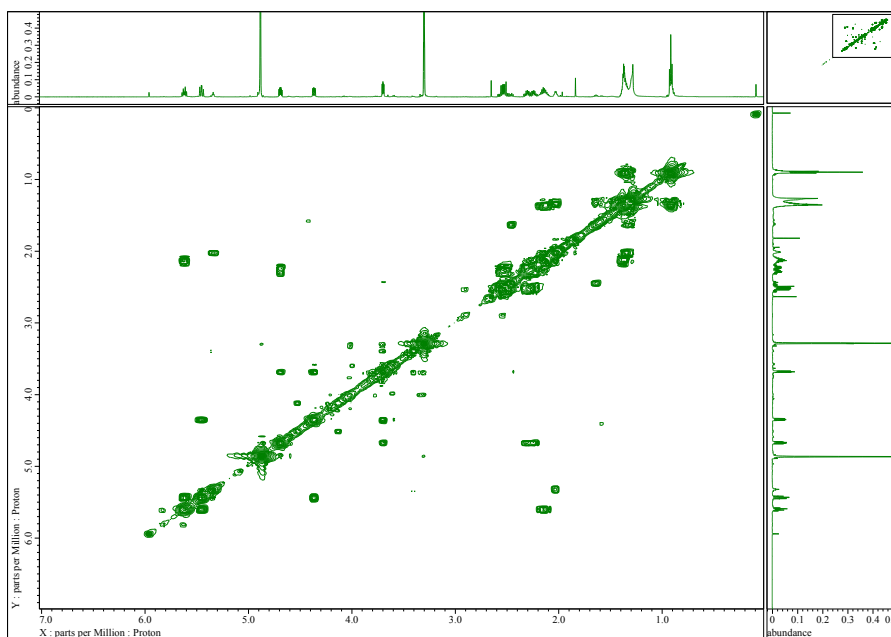


Fig. S5 ^1H - ^1H COSY spectrum recorded for **1** (CD_3OD)

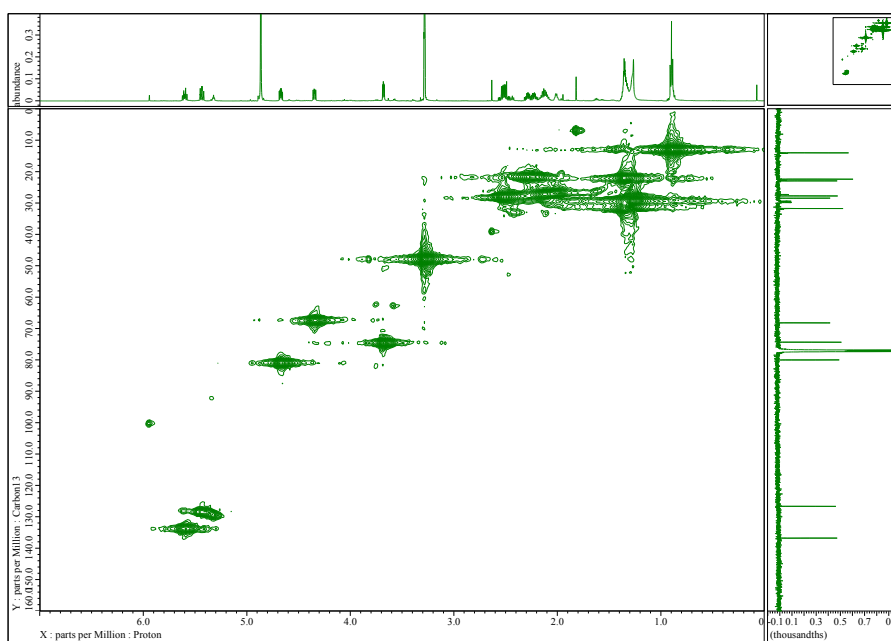


Fig. S6 HMQC spectrum recorded for **1** (CD_3OD).

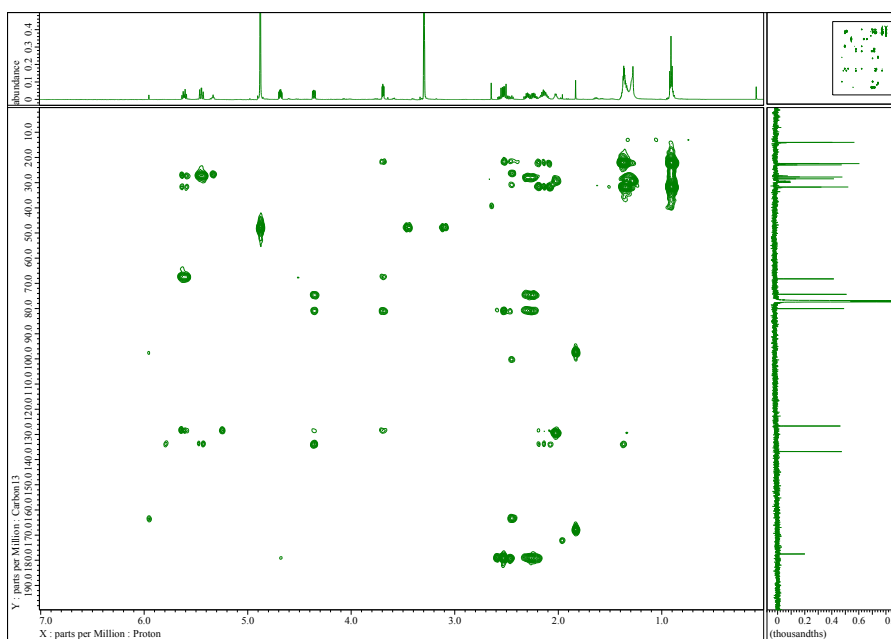


Fig. S7 HMBC spectrum recorded for **1** (CD₃OD).