Supporting Information

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Biological Activity and Chemical Composition of the Endophytic Fungus *Fusarium* sp. TP-G1 Obtained from the Root of *Dendrobium officinale* Kimura et Migo

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S1. Identification of strain *Fusarium* sp. TP-G1 by 18S rDNA sequence analysis:

1 gtggcctcga ctacactccc aacccctgtg acatacctta ctgttgcctc ggcggatcag

61 cccgctcccg gtaaaacggg acggcccgcc agaggacccc taaactctgt ttctatatgt

121 aacttctgag taaaaccata aataaatcaa aactttcaac aacggatctc ttggttctgg

181 catcgatgaa gaacgcagca aaatgcgata agtaatgtga attgcagaat tcagtgaatc

241 atcgaatctt tgaacgcaca ttgcgcccgc cagtattctg gcgggcatgc ctgttcgagc

301 gtcatttcaa ccctcaagcc ctcgggtttg gtgttgggga tcggcgagcc attctggcaa

361 gccggccccg aaatctagtg gcggtctcgc tgcagcctcc attgcgtagt agtaaaaccc

421 tcgcaactgg aacgcggcgc ggccaagccg ttaaaccccc aacttctgaa tgttgacctc

481 ggatcaggta ggaatacccg ctgaacttaa gcatatcaat aaggcggagg aa

Table S1. Summary of ^{1}H (600 MHz) and ^{13}C (150 MHz) NMR spectroscopic data for compound **1**.

position	**1** [a]		trichosetin (*J. Antibiot.* [1])	
	δ_C	δ_H mult. (*J* in Hz)	δ_C	δ_H mult. (*J* in Hz)
1	201.1, C [b]		200.6	
2	49.6, C		49.0	
3	45.3, CH	3.36 (1H, brs)	45.0	3.34 (1H, brd, 9.0)
4	127.4, CH	5.38 (1H, brs)	126.6	5.40 (**1H, brs)
5	131.0, CH	5.38 (1H, brs)	130.0	5.41 (**1H, brs)
6	38.7, CH	1.81 (1H, m)	38.5	1.85 (1H, brt, 12.0)
7	42.4, CH_2	0.86 (1H, m); 1.81 (1H, m)	42.1	0.90 (1H, q, 12.0),1.85 (1H, brd, 12.0)
8	33.7, CH	1.49 (1H, brs)	33.4	1.52 (1H, m)
9	35.9, CH_2	1.09 (1H, m); 1.72 (1H, m)	35.6	1.11 (1H, q, 12.0), 1.76 (1H, brd, *12.0)
10	28.4, CH_2	1.02 (1H, m); 1.92 (1H, brd, 9.6)	28.3	1.05 (1H, q, *12.0), 1.96 (1H, brd, 12.0)
11	40.2, CH	1.66 (1H, brs)	40.0	1.68 (1H, brt, *12.0)
12	14.3, CH_3	1.43 (3H, s)	13.9	1.46 (3H, s)
13	130.3, CH	5.14 (1H, m)	130.8	5.20 (1H, dd, 15.0, 9.0)
14	126.6, CH	5.25 (1H, m)	127.2	5.27 (1H, dq, 15.0, 6.5)
15	18.1, CH_3	1.51 (3H, brs)	17.9	1.55 (3H, d, 6.5)
16	22.7, CH_3	0.89 (3H, d, 10.2)	22.4	0.92 (3H, d, 6.5)
1'		6.99 (1H, brs)		6.44 (1H, brs)
2'	179.2, C [b]		179.1	
3'	100.5, C [b]		99.9	
4'	191.3, C [b]		190.6	
5'	62.8, CH	3.78 (1H, brs)	62.2	3.89 (1H, dd, 5.0, 3.5)
6'	62.8, CH_2	3.90 (2H, d, 15)	62.9	3.82 (1H, dd, 12.0, 3.5), 3.90 (1H, dd, 12.0, 3.5)

[a] Recorded in $CDCl_3$; [b] Not detected; *Partially obscured; **overlapping.

[1] J. Inokoshi, N. Shigeta, T. Fukuda, R. Uchida, K. Nonaka, R. Masuma, and H. Tomoda (2013). Epi-trichosetin, a new undecaprenyl pyrophosphate synthase inhibitor, produced by *Fusarium oxysporum* FKI-4553, *J. Antibiot*. **66(9)**, 549-554.

Table S2. Summary of ^{1}H (600 MHz) and ^{13}C (150 MHz) NMR spectroscopic data for compound **2**.

position	**2** [a]		Beauvericin (*Tetrahedron. Lett.* [2])	
	δ_C	δ_H mult. (*J* in Hz)	δ_C	δ_H mult. (*J* in Hz)
Hiv [c]	3units			
1 C=O	169.9*3		169.3*3	
2	75.8*3	4.86 (3H, d, 8.4)	75.4*3	4.91(3H, d, 8.6)
3	29.9*3	1.96 (3H, m)	29.7*3	2.0 (3H, m)
4	17.4*3	0.38 (9H, d, 6.6)	17.4*3	0.42 (9H, d, 6.8)
4'	18.3*3	0.77 (9H, d, 6)	18.3*3	0.79 (9H, d, 6.7)
NMePHe	3units		3units	
1 C=O	170.2*3		169.9*3	
2	57.3*3	5.54 (3H, d, 7.8)	57.3*3	5.45 (3H, dd, 4.1,11.1)
3	34.9*3	3.36 (3H, dd, 4.2, 14.4)	34.7*3	3.34(3H, dd, 5.0,14.6),2.97(3H, dd, 11.8,14.6)
4	136.7*3	2.94 (3H, t, 13.8)	136.6*3	
5,9	128.7*3	7.15-7.25 (15H, m)	128.8*3	7.14-7.26 (15H, m)
6,8	129.0*3		128.5*3	
7	127.0*3		126.7*3	
NCH_3	32.3*3	2.99 (9H, s)	32.3*3	2.98 (9H, s)

[a] Recorded in $CDCl_3$; [c] D-2-hydroxyisovaleric acid (Hiv)

[2] A.R.B. Ola, A.H. Aly, W.H. Lin, V. Wray, and A. Debbab (2014). Structural revision and absolute configuration of lateritin, *Tetrahedron. Lett.* **55(45)**, 6184-6187.

Table S3. Summary of ^{1}H (600 MHz) and ^{13}C (150 MHz) NMR spectroscopic data for compound **3**.

position	**3** [a]		beauvericin A (*J. Nat. Prod.* [3])	
	δ_C	δ_H mult. (*J* in Hz)	δ_C	δ_H mult. (*J* in Hz)
Hiv [c]	2units			
1 C=O	169.8*2		169.2*2	
2	75.8*2	4.91 (1H, d, 9.6)	75.4*2	4.93 (1H,d,6.2)
		4.93 (1H, d, 9.6)		4.96 (1H,d,6.5)
3	29.9, 30.0	2.96-3.01 (2H, m)	29.7*2	2.04 (2H,m)
4	17.6, 17.7	0.43 (3H, d, 7.8), 0.45 (3H, d, 7.2)	17.5*2	0.43(3H,d,6.4),0.45(3H,d,6.5)
4'	18.5*2	0.78 (3H, d, 7.2), 0.80 (3H, d, 7.8)	18.3*2	0.76(3H,d,6.6),0.77(3H,d,6.8)
Hmp [d]	1units		1units	
1 C=O	169.8		169.2	
2	74.6	5.02 (1H, d, 7.8)	74.2	5.04 (1H,d,7.7)
3	36.1	1.75 (1H, m)	35.8	1.78 (1H,m)
4	24.6	2.02 (2H, m)	24.5	0.70 (2H,m)
5	11.6	0.68 (3H, d, 6.0)	11.3	0.68 (3H,m)
6	14.6	0.82 (3H, d, 6.8)	14.3	0.81(3H,d,6.8)
NMePHe	3units		3units	
1 C=O	170.2*3		169.9 *3	
2	57.3, 57.4*2	5.55 (3H, m)	57.4, 57.5*2	5.43 (3H,m)
3	34.8, 34.9, 35.0	3.40 (3H, m)	34.7,34.8*2	3.35 (3H,),2.99 (3H,m)
4	136.8*3	7.19-7.30 (15H, m)	136.6*3	7.22 (15H,m)
5,9	128.8*3, 128.7*3		128.5*6	
6,8	129.0*3, 129.1*3		128.9 *6	
7	127.0*3		126.8*3	
NCH_3	32.3, 32.4*2	3.0 (3H, s); 3.03 (6H, s)	32.37,32.4*2	2.95 (3H,s), 2.99 (6H,s)

[a] Recorded in $CDCl_3$; [c] D-2-hydroxyisovaleric acid (Hiv); [d]2-hydroxy-3-methylpentanoic acid (Hmp)

[3] S. Gupta, C. Montllor, and Y.S. Hwang (1995). Isolation of novel beauvericin analogues from the fungus *Beauveria bassiana, J. Nat. Prod*. **58(5)**, 733-738.

Table S4. Summary of ^{1}H (600 MHz) and ^{13}C (150 MHz) NMR spectroscopic data for compound **4**

position	**4** [a]		enniatin B (*Food. Chem.* [4])	
	δ_C	δ_H mult. (*J* in Hz)	δ_C	δ_H mult. (*J* in Hz)
NMeVal	3units			
1 C=O	170.6*3		171.4*3	
2	63.4*3	4.51 (3H, d, 8.4)	63.6*3	4.7 (3H)
3	28.1*3	2.25 (3H, m)	29.1*3	2.29 (3H)
4	20.6*3	1.04 (9H, d,5.4)	20.2*3	1.09 (9H)
4'	19.7*3	0.88 (9H, d, 6.0)	20.2*3	0.95 (9H)
N-CH_3	33.4*3	3.11 (9H, s)	32.9*3	3.21 (9H)
Hiv [c]	3units		3units	
1 C=O	169.6*3	5.11 (3H, d, 7.8)	171.9*3	5.22 (3H)
2	75.9*3	2.17 (3H, m)	76.4*3	2.19 (3H)
3	30.2*3		31.2*3	
4	18.9*3	0.94 (9H, d, 6)	18.7*3	0.98 (9H)
4'	18.8*3	0.96 (9H, d, 6.6)	18.7*3	1.02 (9H)

[a] Recorded in $CDCl_3$; [c] D-2-hydroxyisovaleric acid (Hiv)

[4] V. Cuomo, A. Randazzo, G. Meca, A. Moretti, A. Cascone, O. Eriksson, E. Novellino, and A. Ritieni (2013). Production of enniatins A, A1, B, B1, B4, J1 by *Fusarium tricinctum* in solid corn culture: structural analysis and effects on mitochondrial respiration, *Food. Chem.* **140(4)**, 784-793.

Table S5. Summary of ^{1}H (600 MHz) and ^{13}C (150 MHz) NMR spectroscopic data for compound **5**.

position	**5** [a]		enniatin H (*Tetrahedron* [5])	
	δ_C	δ_H mult. (J in Hz)	δ_C	δ_H mult. (J in Hz)
NMeVal	3units		3units	
1 C=O	170.5*3		170.3*3	
2	63.3, 63.4*2	4.50-4.53 (3H,m)	63.1, 63.2, 63.3	4.55-4.57 (3H, m)
3	28.0, 28.1,28.2	2.23-2.29 (3H,m)	27.8, 27.9, 28.0	2.28-2.29 (3H, m)
4	20.5*2, 20.6	1.03 (9H ,m)	20.3*2, 20.4	1.06 (9H, m)
4'	19.5, 19.6,19.7	0.87-0.89 (9H, m)	19.3, 19.4, 19.5	0.89-0.90 (9H, m)
N-CH_3	33.1*2, 33.3	3.08 (3H, s)	32.9*2, 33.1	3.11 (3H, s)
		3.09 (3H, s)		3.13 (3H, s)
		3.11 (3H, s)		3.14 (3H, s)
Hiv [c]	2units		2units	
1 C=O	169.5*2		169.3*2	
2	75.8, 76	5.12 (2H, dd, 9,13.8)	75.9, 75.6	5.13-5.15 (2H, m)
3	30.1*2	2.26-2.29 (2H, m)	29.9*2	2.28 (2H, m)
4	18.8, 18.9	0.96 (6H, d, 6.0)	18.6, 18.7	0.98 (6H, m)
4'	18.6, 18.7	0.94 (9H, d, 6.6)	18.5*2	0.96 (6H, m)
Hmp [d]	1unit		1unit	
1 C=O	169.5		169.3	
2	74.4	5.24 (1H, d, 6)	74.3	5.27 (1H, d, 6.8)
3	36.3	1.98(1H, m)	36.1	2.00 (1H, m)
4	25.6	1.44(1H, m)	25.4	1.46 (1H, m)
		1.17(1H, m)		1.19 (1H, m)
5	11.5	0.89-0.90 (3H, m)	11.3	0.92 (3H, m)
3-CH_3	14.8	0.94 (9H, d, 6.6)	14.6	0.96 (3H, m)

[a] Recorded in $CDCl_3$; [c] D-2-hydroxyisovaleric acid (Hiv); [d] 2-hydroxy-3-methylpentanoic acid (Hmp)

[5] C. Nilanonta, M. Isaka, R. Chanphen, N. Thong-Orn, M. Tanticharoen, and Y. Thebtaranonth (2003). Unusual enniatins produced by the insect pathogenic fungus *Verticillium hemipterigenum*: Isolation and studies on precursor-directed biosynthesis, *Tetrahedron* **59(7)**, 1015-1020.

Table S6. Summary of ^{1}H (600 MHz) and ^{13}C (150 MHz) NMR spectroscopic data for compound **6**.

position	**6** [a]		enniatin I (*Tetrahedron* [5])	
	δ_C	δ_H mult. (*J* in Hz)	δ_C	δ_H mult. (*J* in Hz)
NMeVal	3units		3units	
1 C=O	170.6*3		170.3*3	
2	63.2, 63.3, 63.4	4.53-4.55 (3H, m)	63.1*3	4.55-4.56 (3H, m)
3	27.9, 28.0*2	2.27 (3H, m)	27.8, 27.9*2	2.28-2.30 (3H, m)
4	20.5, 20.6*2	1.04 (9H, m)	20.3*3	1.06 (9H, m)
4'	19.4, 19.5, 19.6	0.86-0.88 (9H, m)	19.2, 19.3, 19.4	0.89 (9H, m)
N-CH_3	33.0, 33.1*2	3.07 (3H, s)	32.7, 32.9*2	3.09 (3H, s)
		3.09 (3H, s)		3.11 (3H, s)
		3.10 (3H, s)		3.12 (3H, s)
Hiv [c]	1unit		1unit	
1 C=O	169.4		169.2*1	
2	75.9	5.13 (1H, d, 7.8)	75.7	5.15(1H, d, 8.2)
3	30.1	2.27 (1H, m)	29.9	2.29(1H, m)
4	18.7	0.96 (3H, d, 6.6)	18.6	0.98(3H, m)
4'	18.6	0.94 (3H, m)	18.5	0.95(3H, m)
Hmp [d]	2units		2units	
1 C=O	169.4*2		169.2*2	
2	74.6, 74.5	5.26 (2H, dd, 6.6,11.4)	74.2, 74.4	5.27-5.28 (2H, m)
3	36.3, 36.4	2.0 (2H, m)	36.1*2	2.02 (2H, m)
4	25.6*2	1.44 (2H, m)	25.3*2	1.46 (2H, m)
		1.14-1.19 (2H, m)		1.18-1.19 (2H, m)
5	11.5*2	0.90 (6H, t, 7.2)	11.3*2	0.92 (6H, t, 7.5)
3-CH_3	14.7*2	0.94 (6H, m)	14.6*2	0.96 (6H, m)

[a] Recorded in $CDCl_3$; [c] D-2-hydroxyisovaleric acid (Hiv); [d] 2-hydroxy-3-methylpentanoic acid (Hmp)

[5] C. Nilanonta, M. Isaka, R. Chanphen, N. Thong-Orn, M. Tanticharoen, and Y. Thebtaranonth (2003). Unusual enniatins produced by the insect pathogenic fungus *Verticillium hemipterigenum*: Isolation and studies on precursor-directed biosynthesis, *Tetrahedron* **59(7)**, 1015-1020.

Table S7. Summary of ^{1}H (600 MHz) and ^{13}C (150 MHz) NMR spectroscopic data for compound **7**.

position	**7** [a]		enniatin MK1688 (*Tetrahedron* [5])	
	δ_C	δ_H mult. (*J* in Hz)	δ_C	δ_H mult. (*J* in Hz)
NMeVal	3units			
1 C=O	170.6*3		170.4*3	
2	63.3*3	4.56 (3H, d, 9)	63.1*3	4.59 (3H, brd, 9.4)
3	28.0*3	2.25 (3H, m)	27.8*3	2.29 (3H, m)
4	20.5*3	1.01 (9H, d, 6)	20.3*3	1.06 (9H, d, 6.1)
4'	19.6*3	0.86 (9H, d, 6.6)	19.3*3	0.89 (9H, d, 6.9)
N-CH_3	32.8*3	3.07 (9H, s)	32.7*3	3.10 (9H, s)
Hmp [d]	3units		3units	
1 C=O	169.5*3		169.2*3	
2	74.5*3	5.25 (3H, d, 4.8)	74.3*3	5.28 (3H, brd, 5.6)
3	36.4*3	1.98 (3H, m)	36.2*3	2.02 (3H, m)
4	25.6*3	1.42 (3H, m)	25.4*3	1.45 (3H, m)
		1.16 (3H, m)		1.19 (3H, m)
5	11.5*3	0.89 (9H, t, 7.2)	11.3*3	0.92 (9H, t, 7.4)
3-CH_3	14.8*3	0.92 (9H, d, 6.6)	14.6*3	0.96 (9H, d, 6.4)

[a] Recorded in $CDCl_3$; [d] 2-hydroxy-3-methylpentanoic acid (Hmp)

[5] C. Nilanonta, M. Isaka, R. Chanphen, N. Thong-Orn, M. Tanticharoen, and Y. Thebtaranonth (2003). Unusual enniatins produced by the insect pathogenic fungus *Verticillium hemipterigenum*: Isolation and studies on precursor-directed biosynthesis, *Tetrahedron* **59 (7)**, 1015-1020.

Table S8. Summary of ^{1}H (600 MHz) and ^{13}C (150 MHz) NMR spectroscopic data for compound s **8**–**9**.

position	**8**[a]		fusaric acid (*Appl Environ Microbiol* [6])		**9**[a]	
	δ_C	δ_H mult. (*J* in Hz)	δ_C	δ_H mult. (*J* in Hz)	δ_C	δ_H mult. (*J* in Hz)
2	145.3, C		147.8, C		144.7, C	
3	124.8, CH	8.16 (1H, d, 7.2)[b]	128.8, CH	8.26d (1H, d, 8.2)	123.9, CH	8.14 (1H, d, 7.2)[c]
4	138.7, CH	7.73 (1H, s)[b]	143.1, CH	8.47dd (1H, 1.8, 8.2)	136.3, CH	7.73 (1H, d, 7.2)[c]
5	143.2, C		146.1, C		142.0, C	
6	147.7, CH	8.74 (1H, s)	149.7, CH	8.57 (1H, brs)	148.2, CH	8.55 (1H, s)
7	165.5, COOH	13.16 (1H, s)	166.6, COOH		164.9, COOH	7.24 (1H, s)
8	33.0, CH_2	2.68 (2H, t, 7.2)	34.4, CH_2	2.87 (2H, t, 7.6)	34.6, CH_2	2.81 (2H, t, 7.2)
9	32.9, CH_2	1.58 (2H, m)	34.3, CH_2	1.66 (2H, m)	32.3, CH_2	2.39 (2H, dd, 7.2)
10	22.3, CH_2	1.30 (2H, m)	24.1, CH_2	1.32 (2H, m)	138.8, CH	5.78 (1H, m)
11	13.8, CH_3	0.86 (3H, t, 7.2)	15.7, CH_3	0.89 (3H, t, 7.2)	116.3, CH_2	4.99 (2H, d, 12.6)

[a] Recorded in $CDCl_3$; Fusaric acid was recorded in D_2O in the literature; [b&c]According to the structure of compounds **8** and **9**, the chemical shifts of position 3and 4 should be assigned as it is in this paper, not as it is in the literature.

[6] H.R. Burmeister, M.D. Grove, R.E. Peterson, D. Weisleder, and R.D. Plattner (1985). Isolation and characterization of two new fusaric acid analogs from *Fusarium moniliforme* NRRL 13,163, *Appl Environ Microbiol* **50(2)**, 311-314.

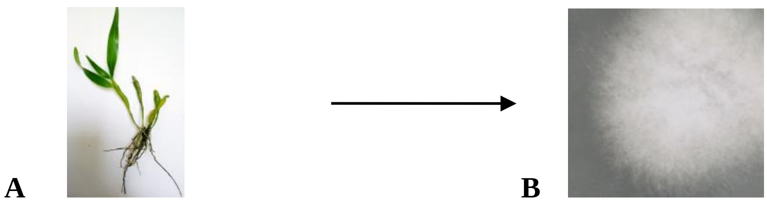


Figure S1. *D.officinable* kimura et Migo (**A**) and pure culture of *Fusarium* sp. TP-G1 obtained from the root of *D.officinable* kimura et Migo at 28 °C for 7 days (**B**).

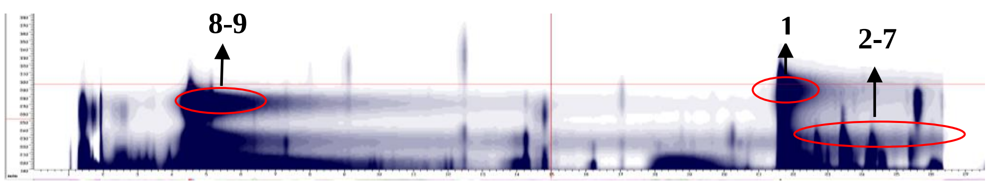
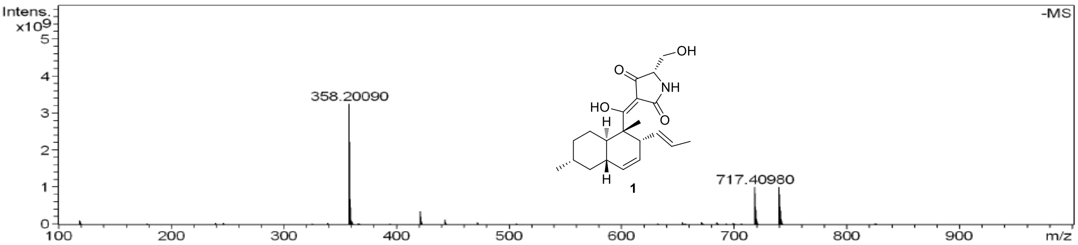


Figure S2. HPLC-DAD screening of the fermentation extracts of *Fusarium* sp. TP-G1.



Meas. m/z	#	Formula	Score	m/z	err [ppm]	Mean err [ppm]	mSigma	rdb	e⁻ Conf	N-Rule
358.20090	1	C 21 H 28 N O 4	100.00	358.20238	4.15	3.81	12.8	8.5	even	ok
717.40980	1	C 42 H 57 N 2 O 8	100.00	717.41204	3.12	3.11	6.6	15.5	even	ok

Figure S3. HRESIMS spectrum of trichosetin (**1**)

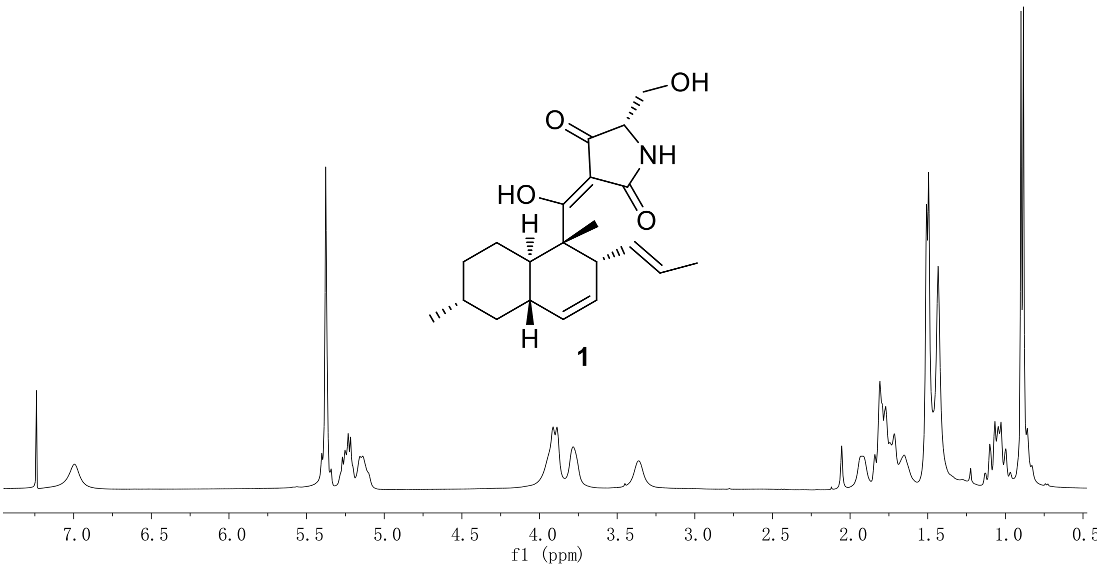


Figure S4. ^{1}H NMR (600 MHz) spectrum of trichosetin (**1**) in $CDCl_3$

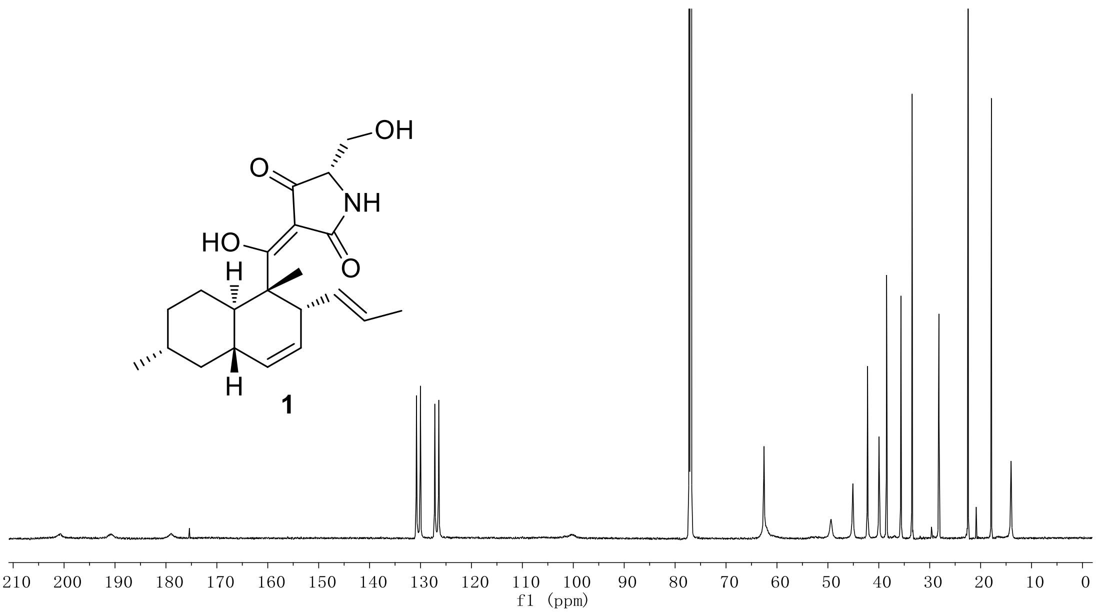


Figure S5. ^{13}C NMR (150 MHz) spectrum of trichosetin (**1**) in $CDCl_3$

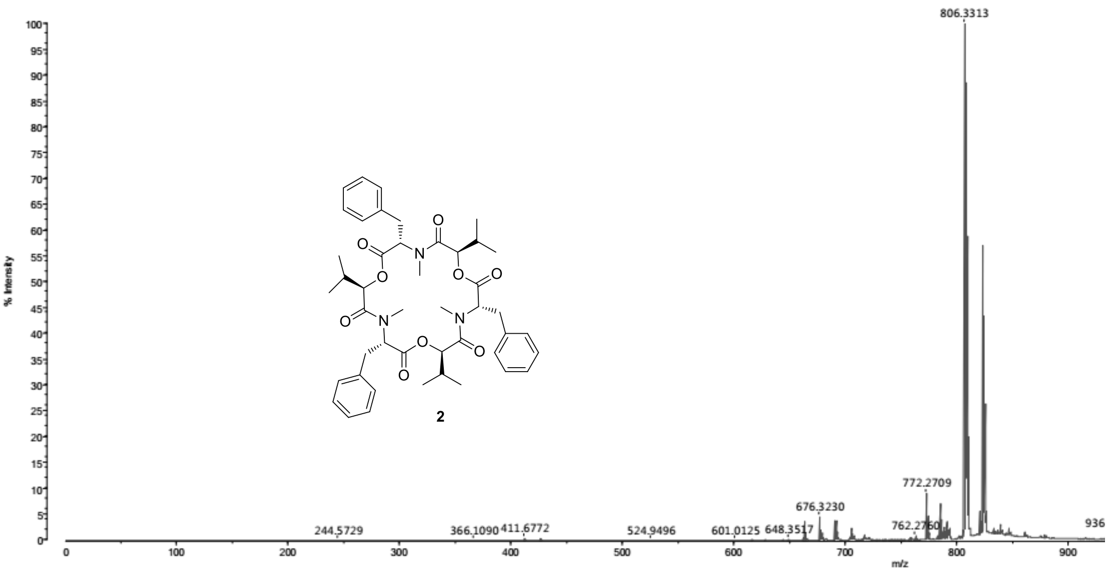


Figure S6. MS spectrum of beauveric in (**2**)

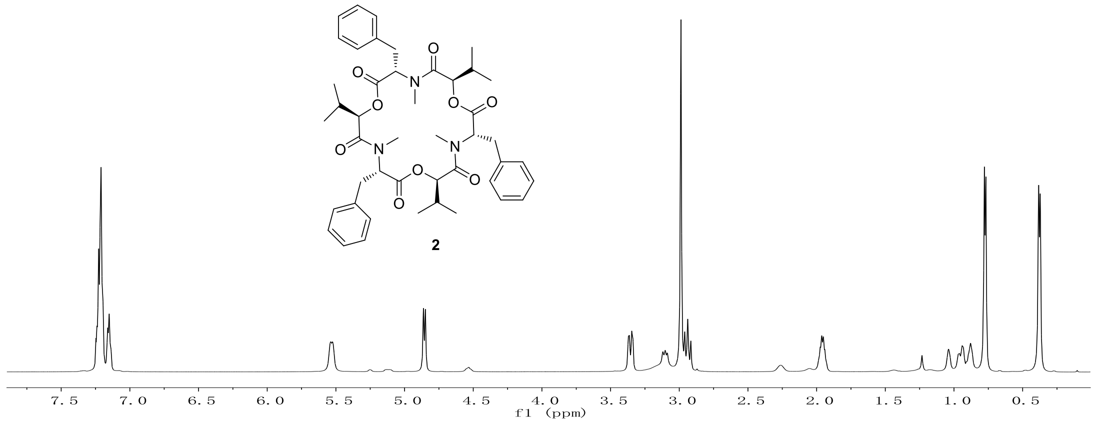


Figure S7. ^{1}H NMR (600 MHz) spectrum of beauvericin (**2**) in $CDCl_3$

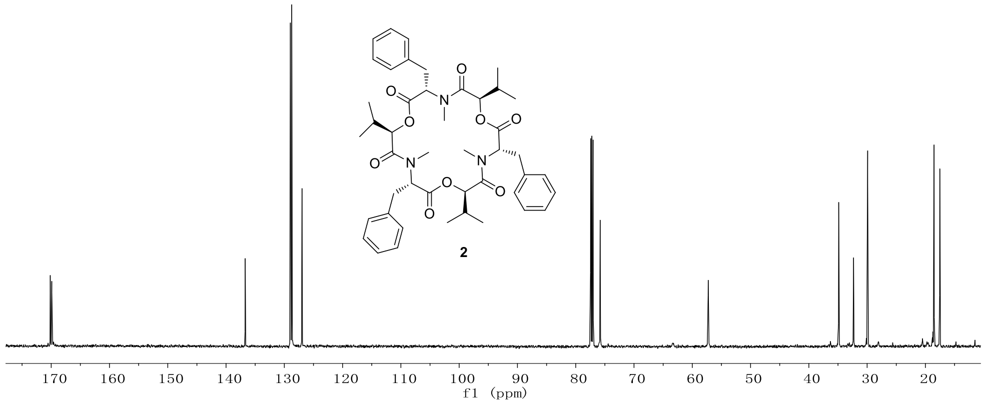


Figure S8. ^{13}C NMR (150 MHz) spectrum of beauvericin (**2**) in $CDCl_3$

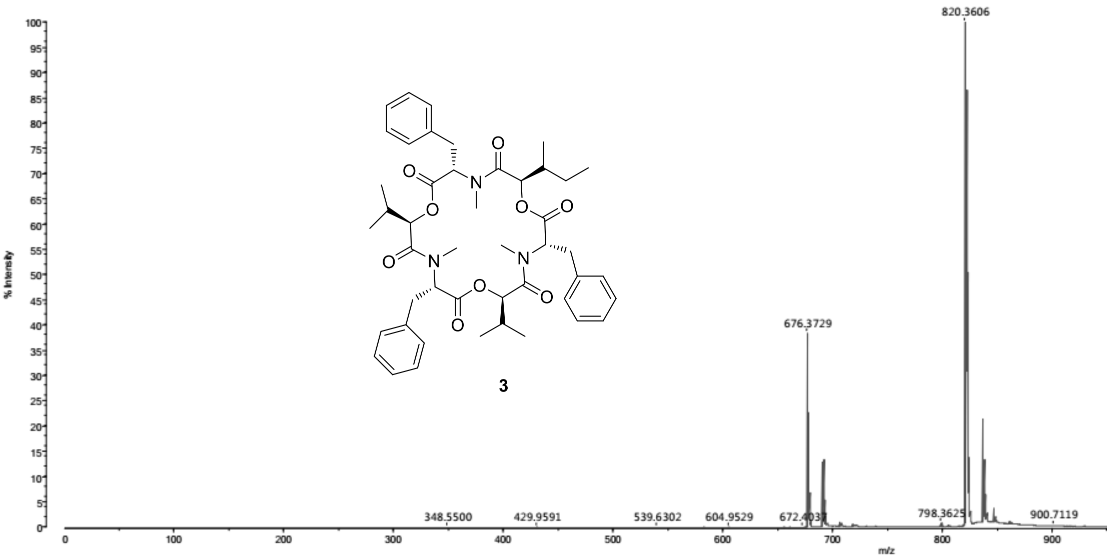


Figure S9. MS spectrum of beauvericin A (**3**)

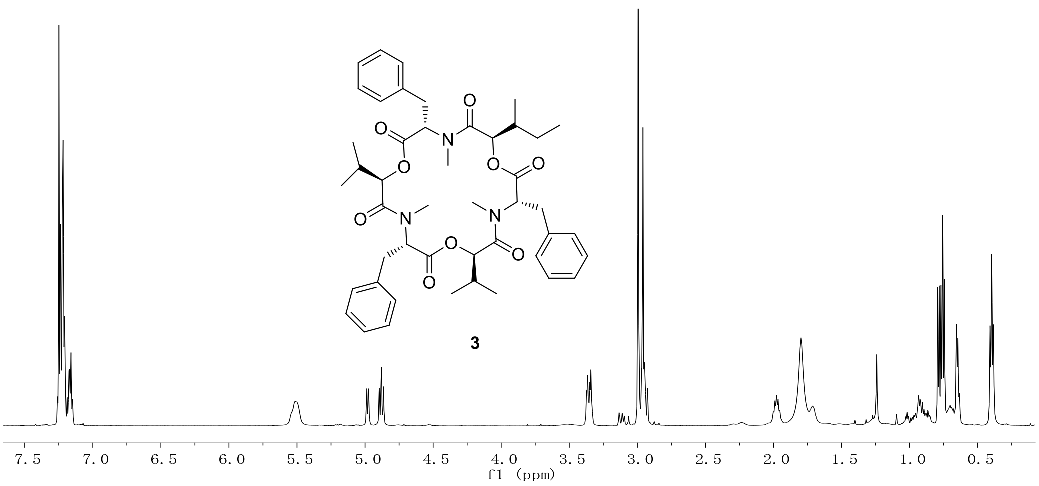


Figure S10. ^{1}H NMR (600 MHz) spectrum of beauvericin A (**3**) in $CDCl_3$

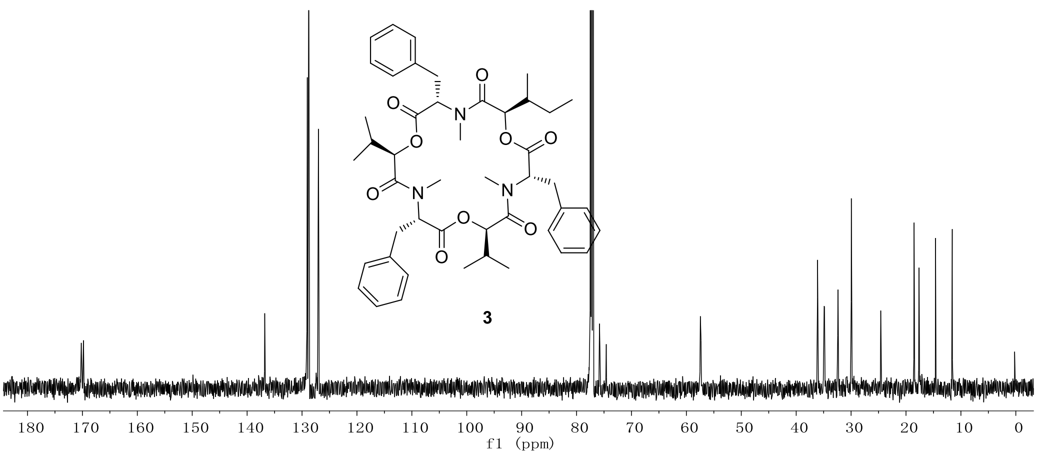


Figure S11. ^{13}C NMR (150 MHz) spectrum of beauvericin A (**3**) in $CDCl_3$

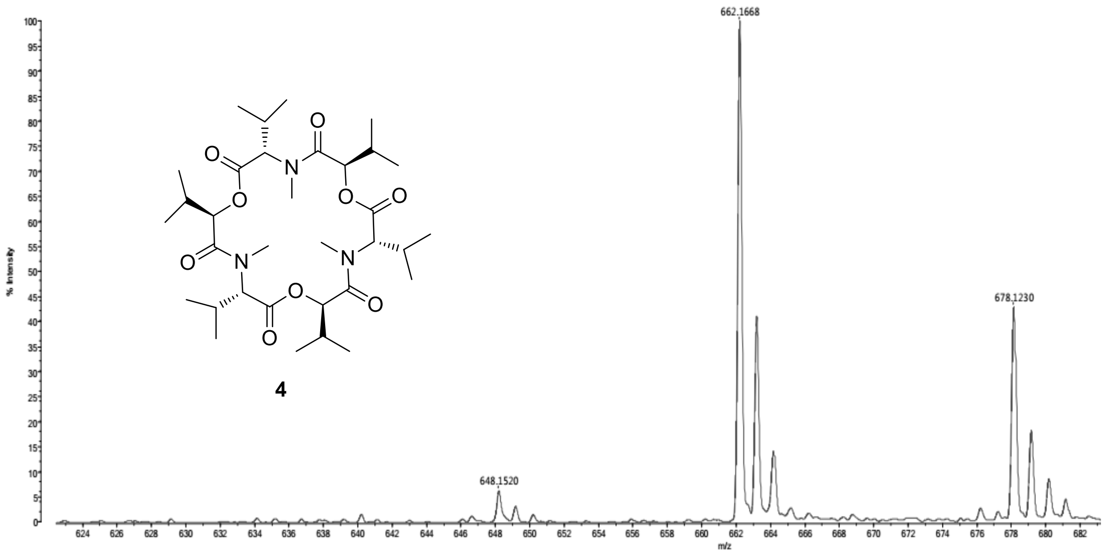


Figure S12. MS spectrum of enniatin B (**4**)

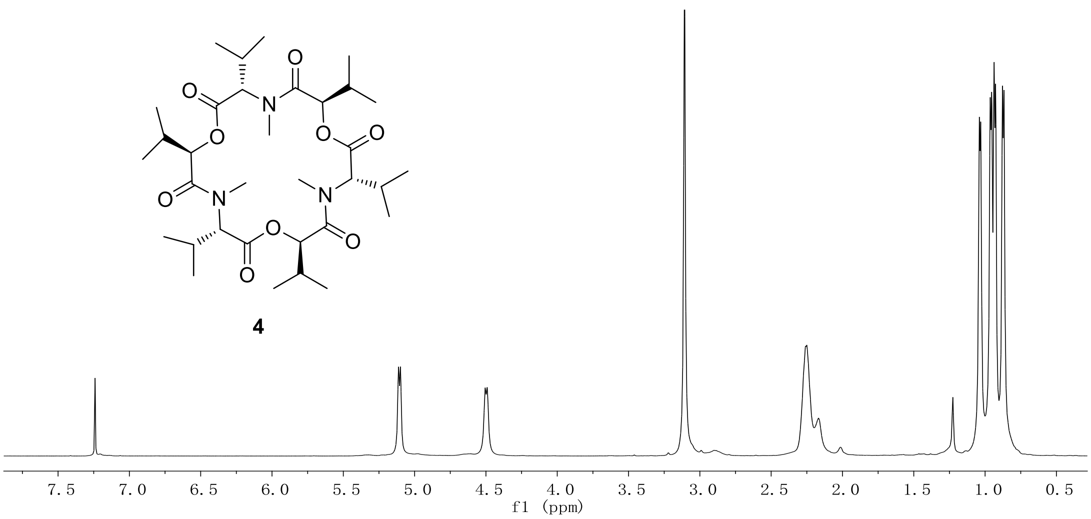


Figure S13. ^{1}H NMR (600 MHz) spectrum of enniatin B (**4**) in $CDCl_3$

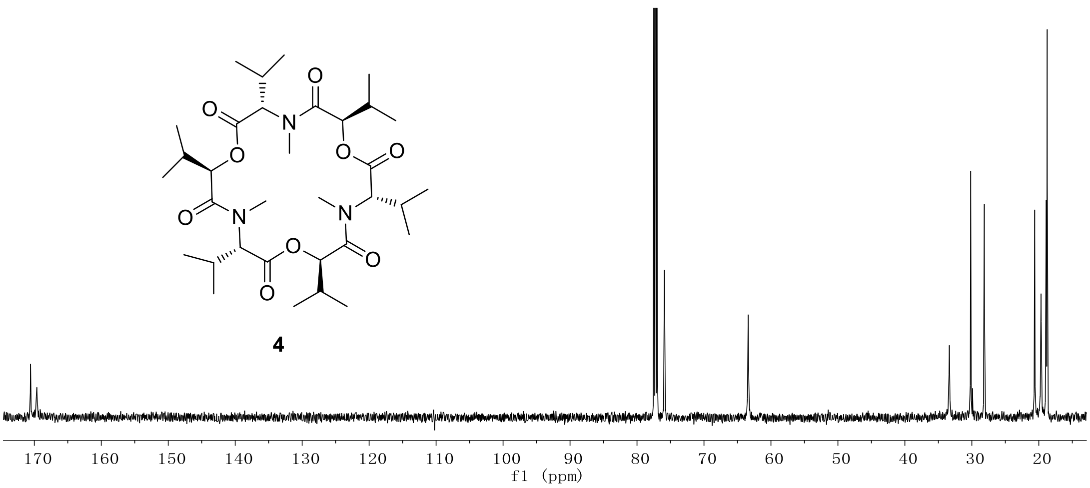


Figure S14. ^{13}C NMR (150 MHz) spectrum of enniatin B (**4**) in $CDCl_3$

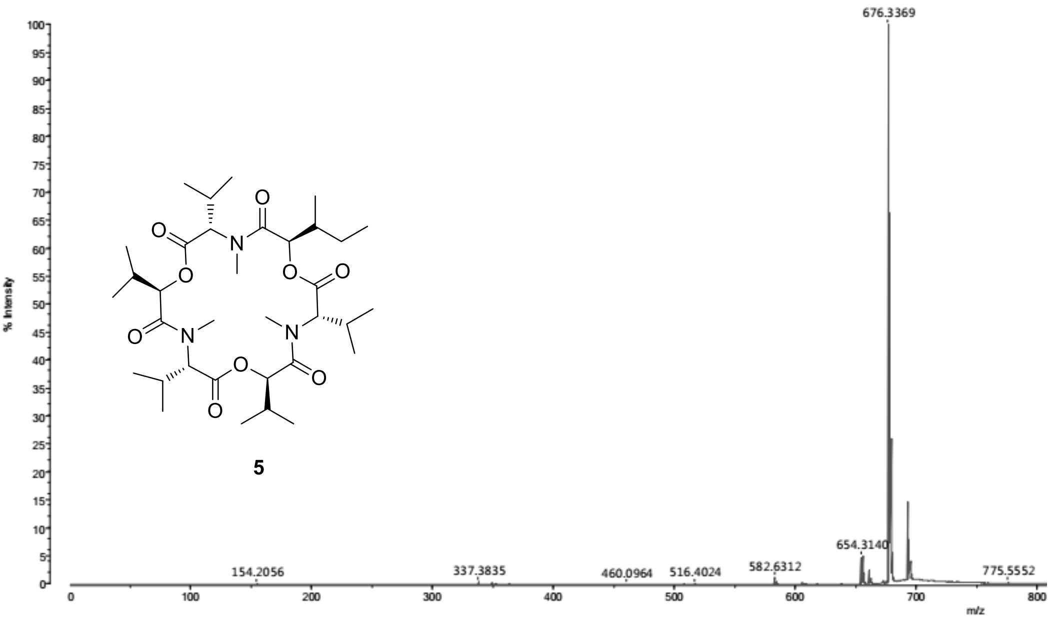


Figure S15. MS spectrum of enniatin H (**5**)

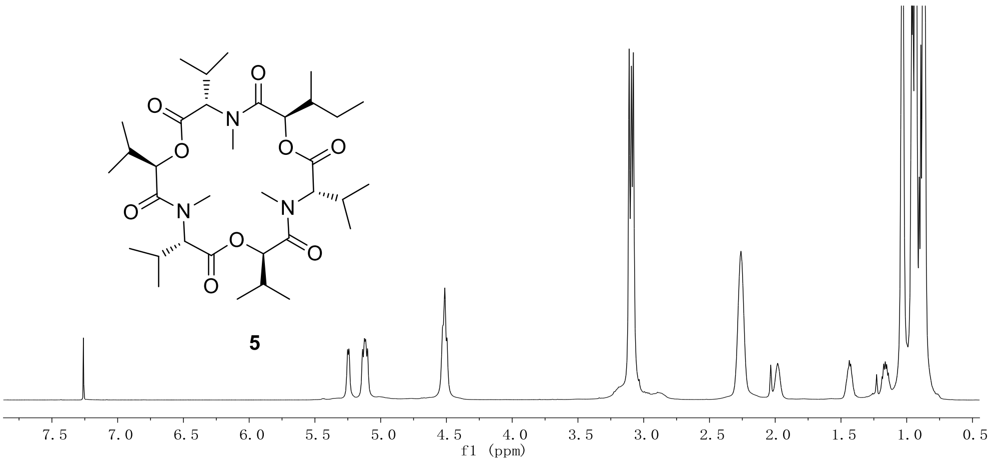


Figure S16. ^{1}H NMR (600 MHz) spectrum of enniatin H (**5**) in $CDCl_3$

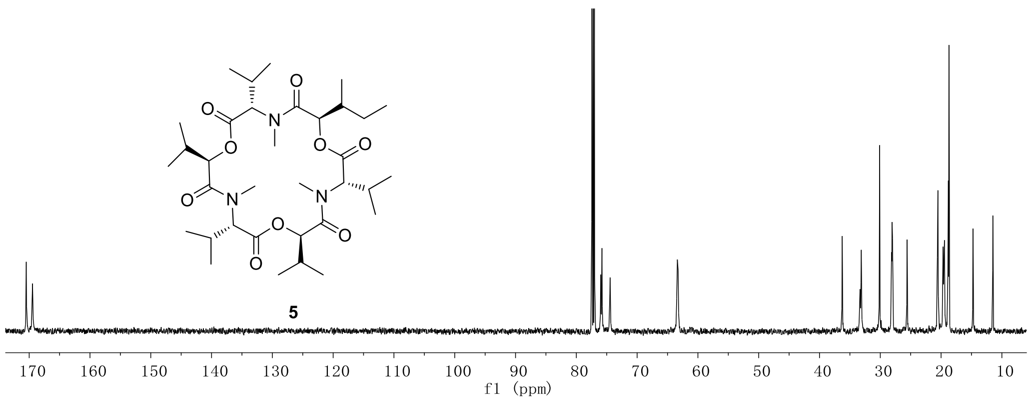


Figure S17. ^{13}C NMR (150 MHz) spectrum of enniatin H (**5**) in $CDCl_3$

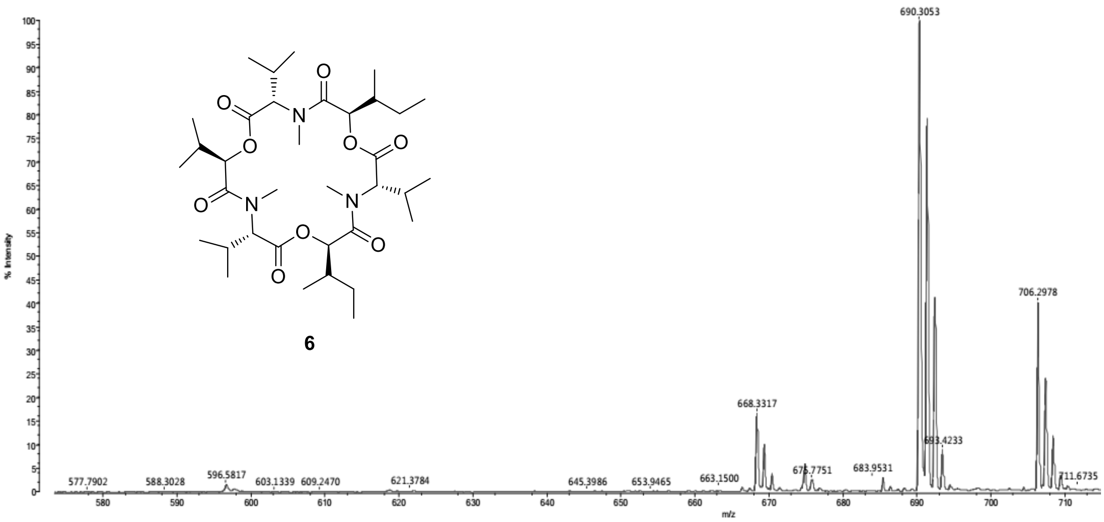


Figure S18 MS spectrum of enniatin I (**6**)

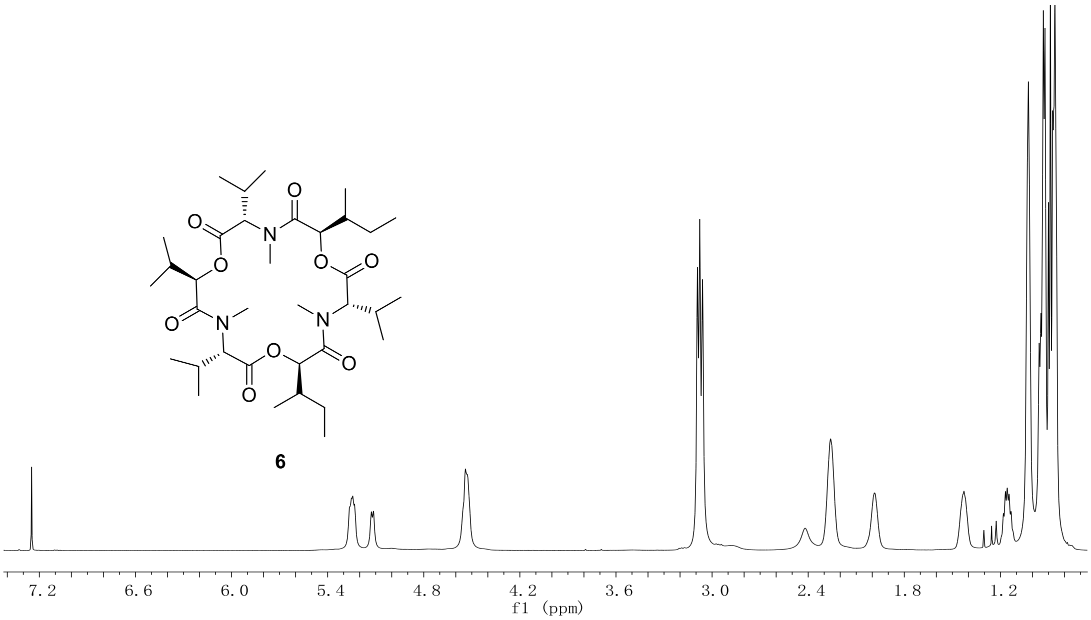


Figure S19. ^{1}H NMR (600 MHz) spectrum of enniatin I (**6**) in $CDCl_3$

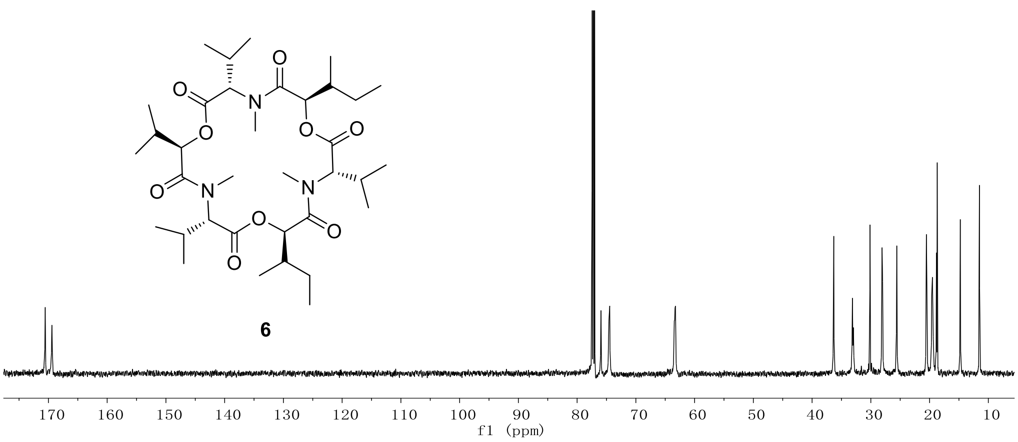


Figure S20. ^{13}C NMR (150 MHz) spectrum of enniatin I (**6**) in $CDCl_3$

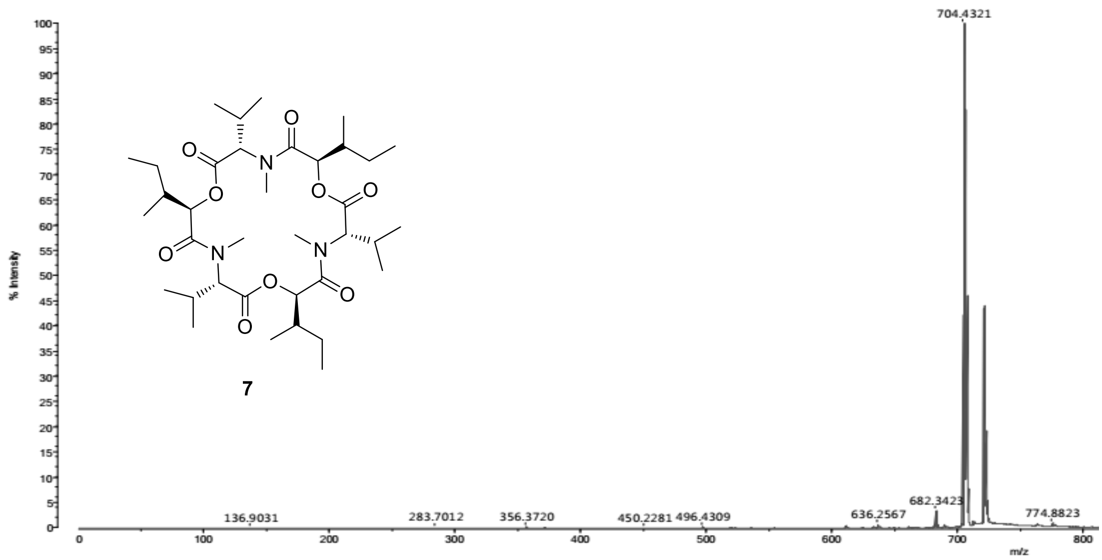


Figure S21. MS spectrum of enniatin MK1688 (**7**)

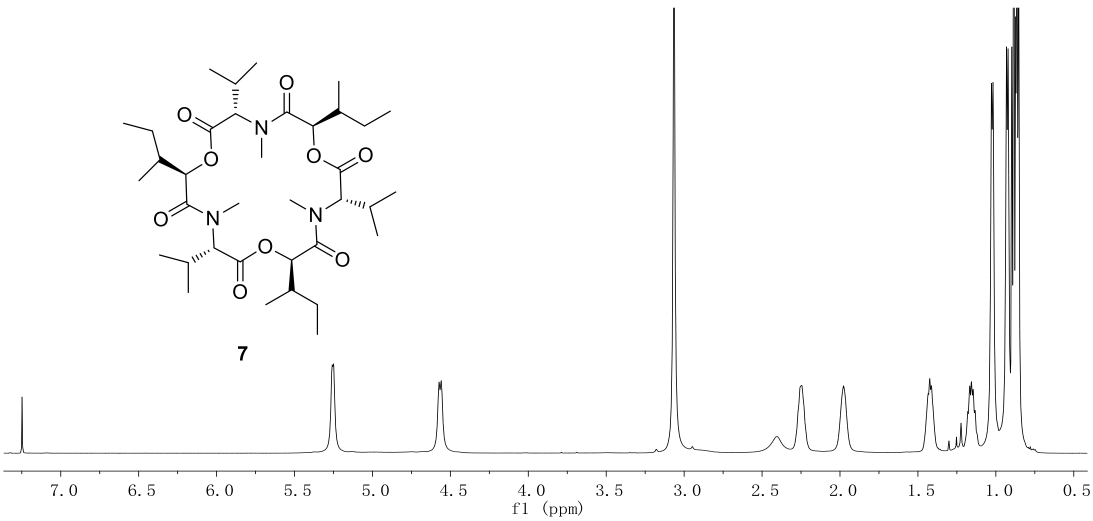


Figure S22. ^{1}H NMR (600 MHz) spectrum of enniatin MK1688 (**7**) in $CDCl_3$

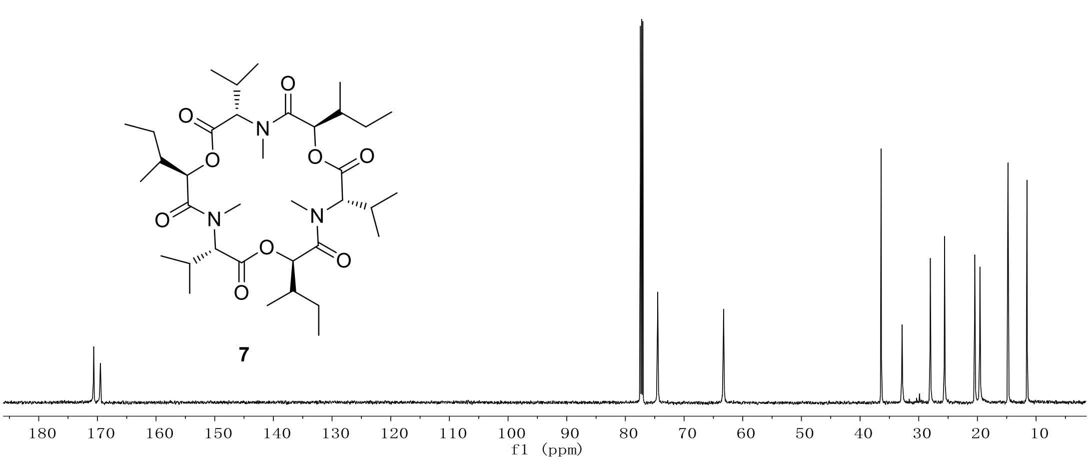


Figure S23. ^{13}C NMR (150 MHz) spectrum of enniatin MK1688 (**7**) in $CDCl_3$

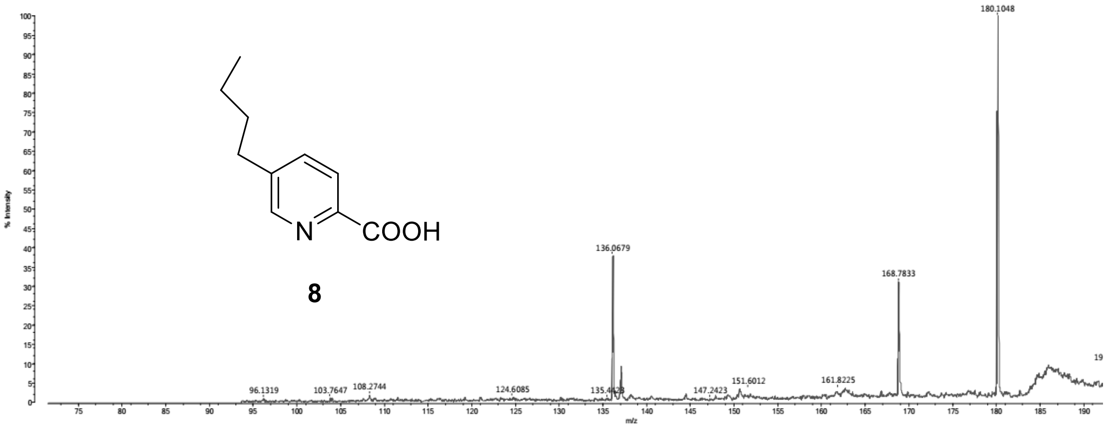


Figure S24. MS spectrum of fusaric acid (**8**)

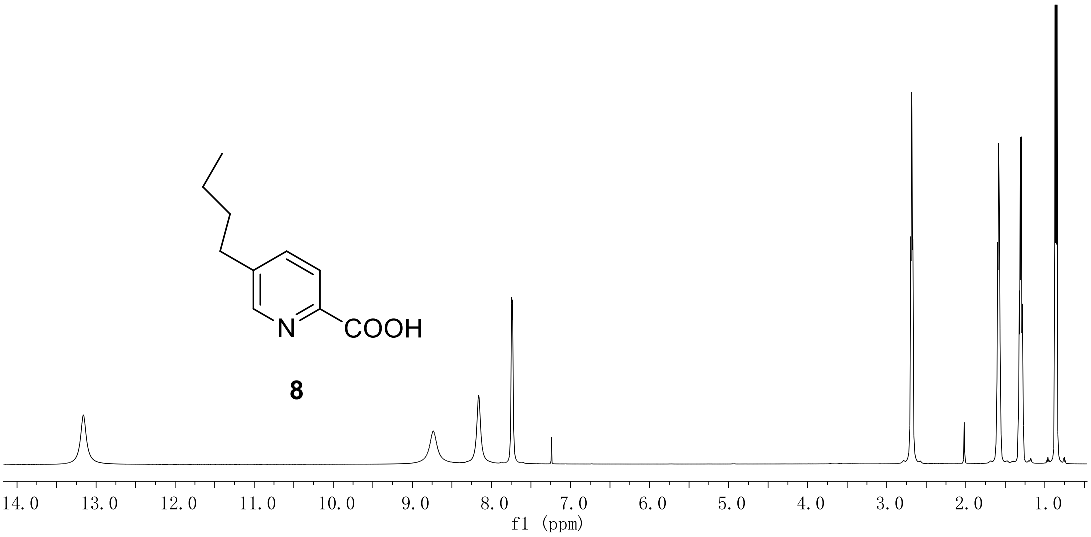


Figure S25. ^{1}H NMR (600 MHz) spectrum of fusaric acid (**8**) in $CDCl_3$

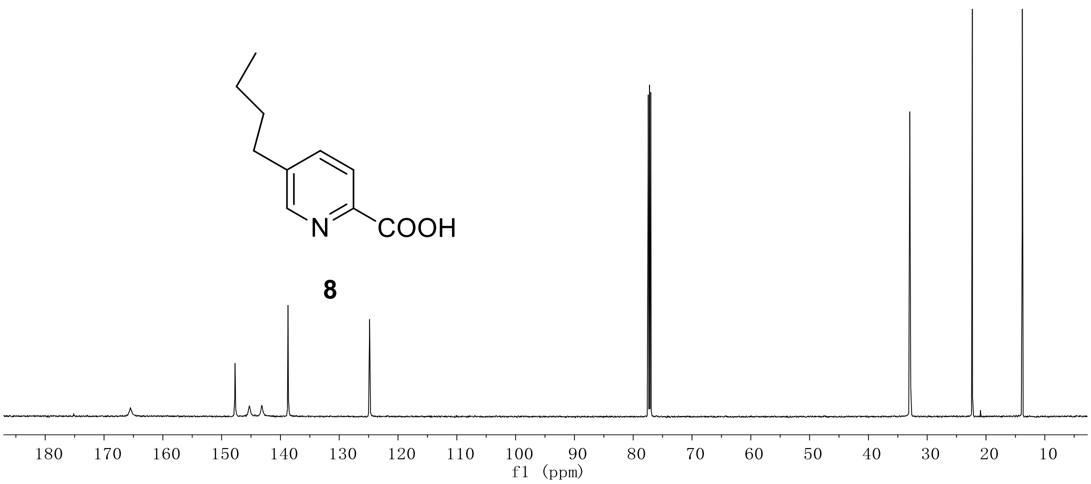


Figure S26. ^{13}C NMR (150 MHz) spectrum of fusaric acid (**8**) in $CDCl_3$

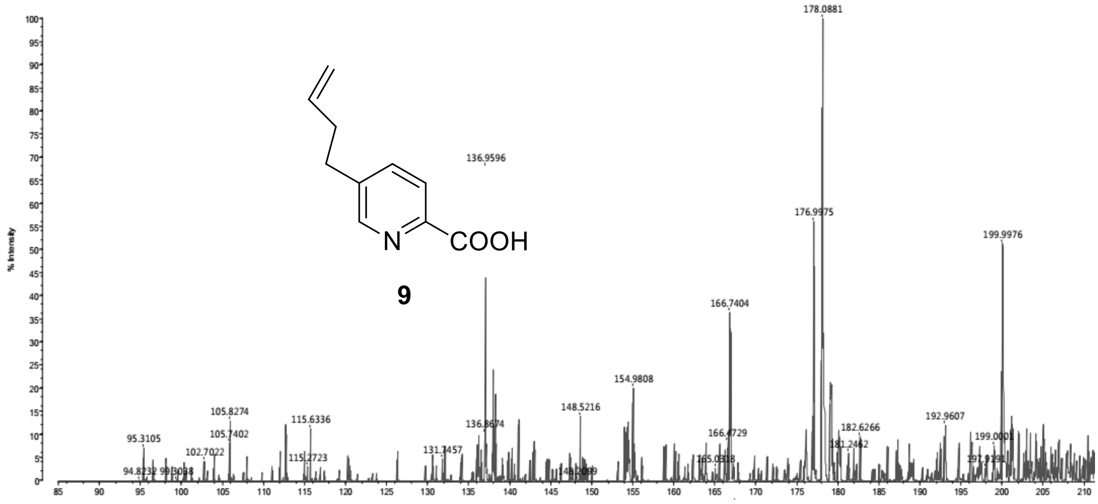


Figure S27. MS spectrum of dehydrofusaric acid (**9**)

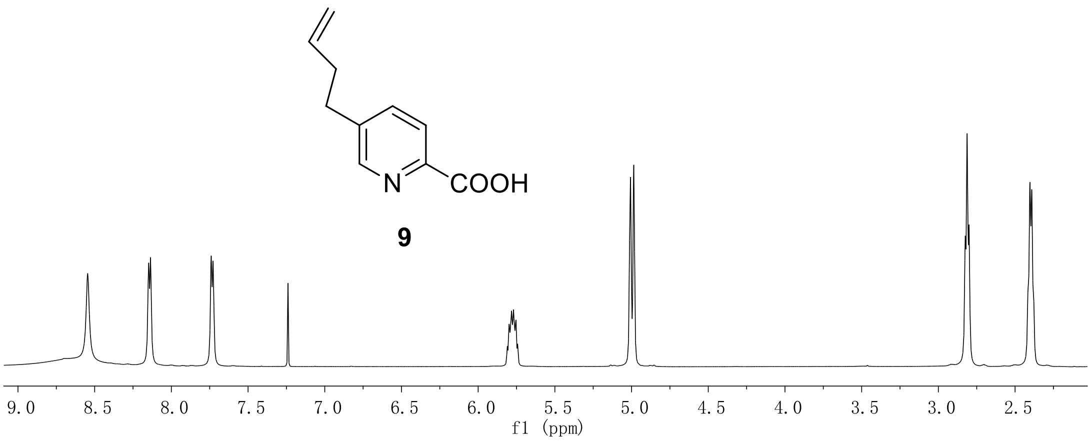


Figure S28. ^{1}H NMR (600 MHz) spectrum of dehydrofusaric acid (**9**) in $CDCl_3$

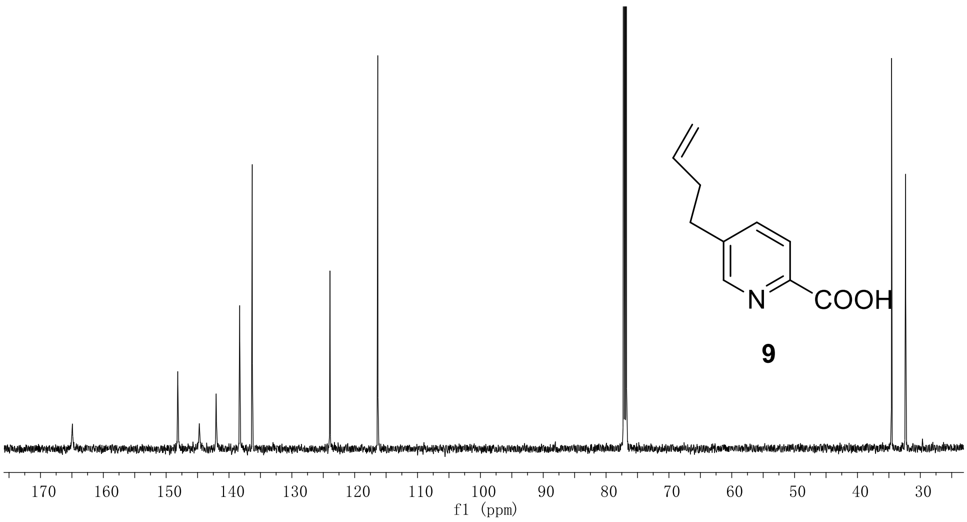


Figure S29. ^{13}C NMR (150 MHz) spectrum of dehydrofusaric acid (**9**) in $CDCl_3$