Supporting Information

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New Cyclic Peptides from the Endophytic

Aspergillus versicolor 0312 with Their Antimicrobial Activity

Yanping Li ¹¹, Shanling Sheng ²¹, Jian Feng ², Yudan Wang ², Jing Guo ¹, Yuntao Jiang ^{2*}and Weiguang Wang ^{2*}

¹ School of Chinese Pharmacy, Yunnan University of Chinese Medicine, Kunming

650500, P. R. China

² Key Laboratory of Chemistry in Ethnic Medicinal Resources, State Ethnic Affairs

Commission and Ministry of Education, Yunnan Minzu University, Kunming 650031, P.

<i>R</i> .	China

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Figure S1: HR-ESI-MS spectrum of 1 (7-hydroxyldehydrocyclopeptin)



Figure S2: ¹H-NMR (800 MHz, CD₃OD) spectrum of **1** (7-hydroxyldehydrocyclopeptin)



Figure S3: ¹³C-NMR (200 MHz, CD₃OD) spectrum of 1 (7-hydroxyldehydrocyclopeptin)



Figure S4: DEPT135 (200 MHz, CD₃OD) spectrum of 1 (7-hydroxyldehydrocyclopeptin)



Figure S5: HSQC spectrum of 1 (7-hydroxyldehydrocyclopeptin)



Figure S6: HSQC spectrum of 1 (7-hydroxyldehydrocyclopeptin) (From $\delta_{\rm C}$ 110 ppm to $\delta_{\rm C}$ 145 ppm)



Figure S7: HMBC spectrum of 1 (7-hydroxyldehydrocyclopeptin)



Figure S8: HMBC spectrum of 1 (7-hydroxyldehydrocyclopeptin) (From δ_C 110 ppm to δ_C 180 ppm)



Figure S9: ¹H-¹H COSY spectrum of 1 (7-hydroxyldehydrocyclopeptin)

0312-4 #36 RT: 0.18 AV: 1 NL: 2.10E8 T: FTMS + p ESI Full ms (100.00-1000.00)	9
120 - 100 - 640 1	24335
8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	640,74508 043,25185 041,24646 044,25525 044,25525
0 - (623.27567 627.27850 632 634 638 639.33521 622 624 626 628 630 632 634 636 638 640 m/z	645.25836 642 644 646

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		Max. 10 🚔		Calculate			Max. 10 🚔		Calculate
	ldx	Formula	RDB	Delta mmu		ldx	Formula	RDB	Delta mmu
	1	C36 H37 O6 N4	20.5	-0.371		1	C38 H38 O6 N4Na	20.5	-1.056

Figure S10: HR-ESI-MS spectrum of 2 (14, 31-dimethoxy-penicopeptide A)



Figure S11: ¹H-NMR (800 MHz, CD₃OD) spectrum of 2(14,31-dimethoxy-penicopeptide A)



Figure S12: ¹³C-NMR (200 MHz, CD₃OD) spectrum of 2 (14,31-dimethoxy-penicopeptide A)



Figure S13: DEPT135 (200 MHz, CD₃OD) spectrum of 2 (14,31-dimethoxy-penicopeptide A)



Figure S14: HSQC spectrum of 2 (14,31-dimethoxy-penicopeptide A)



Figure S15: HSQC spectrum of 2 (14,31-dimethoxy-penicopeptide A) (From $\delta_{\rm C}$ 25 ppm to 75 ppm)



Figure S16: HSQC spectrum of **2** (14,31-dimethoxy-penicopeptide A) (From $\delta_{\rm C}$ 105 ppm to 150 ppm)



Figure S17: HMBC spectrum of 2 (14,31-dimethoxy-penicopeptide A)



Figure S18: HMBC spectrum of **2** (14,31-dimethoxy-penicopeptide A) (From δ_c 25 ppm to 75 ppm)



Figure S19: HMBC spectrum of **2** (14,31-dimethoxy-penicopeptide A) (From $\delta_{\rm C}$ 110 ppm to 175 ppm)



Figure S20: ¹H-¹H COSY spectrum of 2 (14,31-dimethoxy-penicopeptide A)



Figure S21: NOESY spectrum of 2 (14,31-dimethoxy-penicopeptide A)

1				3	
No.	$\delta_{ m C}$	δ_{H} (mult, J , Hz)	No.	$\delta_{ m C}$	δ_{H} (mult, <i>J</i> , Hz)
2	172.3 (C)		2	172.2	
3	135.7 (C)		3	135.4	
5	169.0 (C)		5	168.7	
6	116.9 (CH)	7.25 (1H, d, 1.3)	6	114.8	7.41 (1H, m)
7	156.3 (C)		7	158.1	
8	121.7 (CH)	6.96 (1H, d, 8.6)	8	121.0	7.11 (1H, m)
9	123.7 (CH)	6.96 (1H, d, 8.6)	9	123.6	7.06 (1H, m)
10	131.3 (CH)	6.87 (1H, s)	10	131.5	6.89 (1H, s)
11	129.7 (C)		11	131.1	
12	127.9 (C)		12	127.7	
13	133.7 (C)		13	133.6	
14	130.2 (CH)	7.34 (1H,m)	14	130.2	7.35 (2H, m)
15	130.2 (CH)	7.41 (1H,m)	15	130.3	7.41 (2H, m)
16	130.9 (CH)	7.38 (1H, t, 7.3)	16	131.0	7.40 (1H, m)
17	130.2 (CH)	7.41 (1H, m)	17	130.3	7.41 (2H, m)
18	130.2 (CH)	7.34 (1H, m)	18	130.2	7.35 (2H, m)
19	36.1 (CH ₃)	3.10 (3H, s)	19	36.1	3.10 (3H, s)
			7-OCH ₃	56.1	3.83 (3H, s)

Table S1. ¹H NMR and ¹³C NMR data of compound 1 and 3(800 MHz and 200 MHz, CD₃OD)



Figure S22: ¹H-NMR (800 MHz, CD₃OD) spectrum of **3** (7-methoxydehydrocyclopeptin)



Figure S23: ¹³C-NMR (200 MHz, CD₃OD) spectrum of **3** (7-methoxydehydrocyclopeptin)

	2			4	
No.	$\delta_{ m C}$	$\delta_{\rm H}$ (mult, J , Hz)	No.	$\delta_{ m C}$	δ_{H} (mult, J , Hz)
1	172.0 (C)		1	170.9 (C)	
2	69.9 (CH)	4.29 (1H, dd, 10.5, 7.1)	2	68.4 (CH)	4.32 (1H, dd, 10.7, 7.0)
3	35.1 (CH ₂)	2.69 (1H _a , dd, 13.4, 10.7)	3	33.7 (CH ₂)	2.68 (1H _a , dd, 13.4, 11.1).
		2.79 (1 H_b , dd, 13.4, 7 0)			2.81 $(1H_b, dd, 13.4, 6.9)$
4	137.3 (C)		4	135.7 (C)	,
5	130.0 (CH)	7.04 (1H, d, 7.3)	5	128.6 (CH)	7.04 (1H, d, 7.4)
6	129.8 (CH)	7.23 (1H, m)	6	128.4 (CH)	7.24 (3H, m)
7	128.2 (CH)	7.23 (1H, m)	7	126.9 (CH)	7.24 (3H, m)
8	129.8 (CH)	7.23 (1H, m)	8	128.4 (CH)	7.24 (3H, m)
9	130.0 (CH)	7.04 (1H, d, 7.3)	9	128.6 (CH)	7.04 (1H, d, 7.4)
10	39.8 (CH ₃)	2.92 (3H, s)	10	38.3 (CH ₃)	2.92 (3H, s)
11	168.0 (C)		11	166.9 (C)	
12	128.8 (C)		12	126.4 (C)	
13	115.3 (CH)	7.44 (1H, d, 2.8)	13	130.9 (CH)	7.96 (1H, d, 7.7)
14	158.1 (C)		14	124.4 (CH)	7.35 (1H, t, 7.5)
14-OCH ₃	56.2 (CH ₃)	3.88 (3H, s)			
15	120.9 (CH)	7.19 (1H, m)	15	132.8 (CH)	7.61 (1H, t, 7.6)
16	123.3 (CH)	7.10 (1H, m)	16	120.2 (CH)	7.17 (1H, d, 8.1)
17	137.2 (C)		17	135.6 (C)	
18	171.0 (C)		18	169.8 (C)	
19	57.9 (CH)	4.42 (1H, t, 7.6)	19	56.5 (CH)	4.43 (1H, t, 7.6)
20	32.9 (CH ₂)	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	20	31.5 (CH ₂)	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
		3.39 (1H _b , dd, 14.5, 7.9)			3.41 (1H _b , dd, 14.5, 7.9)
21	138.2 (C)		21	136.7(C)	
22	130.0 (CH)	7.23 (1H, m)	22	128.6 (CH)	7.24 (1H, m)
23	129.6 (CH)	7.27 (1H, m)	23	128.2 (CH)	7.24 (1H, m)
24	127.8 (CH)	7.17 (1H, m)	24	126.4 (CH)	7.17 (1H, m)
25	129.6 (CH)	7.27 (1H, m)	25	128.2 (CH)	7.29 (1H, dd, 15.5, 7.7)
26	130.0 (CH)	7.23 (1H, m)	26	128.6 (CH)	7.29 (1H, m)
27	29.6 (CH ₃)	3.07(3H, s)	27	28.1 (CH ₃)	3.07 (3H, s)
28	170.4 (C)		28	160.3(C)	
29	129.2 (C)		29	128.3(C)	
30	114.6 (CH)	7.31 (1H, d, 2.8)	30	130.4 (CH)	7.83 (1H, d, 7.7)
31	158.1 (C)		31	124.5(CH)	7.29 (1H, m)
31-OCH ₃	56.1 (CH ₃)	3.83 (3H, s)			
32	121.0 (CH)	7.11 (1H, m)	32	132.3 (CH)	7.53 (1H, t, 7.4)
33	123.7 (CH)	7.01 (1H, d, 8.8)	33	120.6 (CH)	7.08 (1H, d, 8.0)
34	138.2 (C)		34	136.6 (C)	

Table S2. ¹H NMR and ¹³C NMR data of compound 2 and 4 (800 MHz and 200 MHz, CD₃OD)



Figure S24: ¹H-NMR (800 MHz, CD₃OD) spectrum of 4 (penicopeptide A)



Figure S25: ¹³C-NMR (200 MHz, CD₃OD) spectrum of 4 (penicopeptide A)



Figure S26: The Scifinder search reports of the compound 1



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Figure S27: The Scifinder search reports of the compound 2

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