Supplementary Information

Table S1. Inhibition rates of compounds 1–10 in preliminary cytotoxicity test. Table S2. Inhibition rates of compounds with anti-H1N1 virus activities in preliminary test. Figure S1. Animal material: The sarcophyton sp. was collected from the South Sea (Weizhou Islands sea area, Guangxi, China) at a depth of 12 m. The specimen was identified by Professor Zou, R.L. (South China Sea Institute of Oceanology, Chinese Academy of Sciences, Guangzhou, China). The voucher specimen (NO. WZD-2010-03) was deposited at State Key Laboratory of Marine Drugs, Ocean University of China, Qingdao, China. Figure S2. The positive HRESIMS spectrum of compound (1). Figure S3. ¹H-NMR (600 MHz, CDCl₃) spectrum of compound (1). Figure S4. The amplificatory ¹H NMR (600 MHz, CDCl₃) spectrum of compound (1). **Figure S5.** ¹H-NMR (600 MHz, C_5D_5N) spectrum of compound (1). Figure S6. The amplificatory ¹H NMR (600 MHz, C₅D₅N) spectrum of compound (1). Figure S7. ¹³C-NMR (150 MHz, CDCl₃) spectrum of compound (1). Figure S8. DEPT (150 MHz, CDCl₃) spectrum of compound (1). **Figure S9.** ¹H-¹H COSY spectrum of compound (1). Figure S10. HMOC spectrum of compound (1). Figure S11. HMBC spectrum of compound (1). Figure S12. NOESY spectrum of compound (1). Figure S13. The positive HRESIMS spectrum of compound (2). Figure S14. ¹H-NMR (600 MHz, C_5D_5N) spectrum of compound (2). Figure S15. The amplificatory ¹H NMR (600 MHz, C_5D_5N) spectrum of compound (2). Figure S16. ¹³C-NMR (150 MHz, C₅D₅N) spectrum of compound (2). Figure S17. DEPT (150 MHz, C₅D₅N) spectrum of compound (2). **Figure S18.** ¹H-¹H COSY spectrum of compound (2). Figure S19. HMOC spectrum of compound (2). Figure S20. HMBC spectrum of compound (2). Figure S21 NOESY spectrum of compound (2). Figure S22. The positive HRESIMS spectrum of compound (3). Figure S23. ¹H-NMR (600 MHz, CDCl₃) spectrum of compound (3). Figure S24. The amplificatory ¹H NMR (600 MHz, CDCl₃) spectrum of compound (3). Figure S25. ¹³C-NMR (150 MHz, CDCl₃) spectrum of compound (3). Figure S26. DEPT (150 MHz, CDCl₃) spectrum of compound (3). Figure S27. ¹H - ¹H COSY spectrum of compound (3). Figure S28. HMQC spectrum of compound (3). Figure S29. HMBC spectrum of compound (3). Figure S30. NOESY spectrum of compound (3).

	K562		HL-60		HeLa	
	Inhibition Ratio	OD Value	Inhibition Ratio	OD Value	Inhibition Ratio	OD Value
	(%)		(%)		(%)	
Adramycin (1 µM)	80.17	0.31 ± 0.00	85.85	$0.18\ \pm 0.00$	54.89	$0.84\ \pm 0.02$
1 (50 µM)	91.43	0.13 ± 0.00	55.49	0.57 ± 0.06	47.33	0.96 ± 0.04
2 (50 µM)	89.99	0.15 ± 0.01	25.72	$0.95\ \pm 0.03$	46.45	0.98 ± 0.09
3 (50 µM)	91.07	0.13 ± 0.00	50.65	$0.63\ \pm 0.02$	64.35	$0.65\ \pm 0.05$
4 (50 µM)	76.23	0.36 ± 0.00	42.79	0.73 ± 0.01	-9.90	$2.00\ \pm 0.05$
5 (50 µM)	91.05	$0.14\ \pm 0.00$	51.25	$0.62\ \pm 0.01$	17.52	$1.50\ \pm 0.02$
6 (50 µM)	91.69	0.13 ± 0.00	63.28	$0.47\ \pm 0.02$	77.05	$0.42\ \pm 0.01$
7 (50 µM)	90.74	$0.14\ \pm 0.00$	52.77	0.60 ± 0.01	36.45	$1.16\ \pm 0.03$
8 (50 µM)	90.90	$0.14\ \pm 0.00$	47.62	0.67 ± 0.06	74.62	0.46 ± 0.06
9 (50 µM)	68.10	0.48 ± 0.01	31.68	0.87 ± 0.01	-1.24	1.84 ± 0.07
10 (50 µM)	65.31	0.52 ± 0.02	28.96	0.91 ± 0.02	28.33	1.31 ± 0.06

Table S1. Inhibition rates of compounds 1–10 in preliminary cytotoxicity test.

Table S2. Inhibition rates of compounds with anti-H1N1 virus activities in preliminary test.

	Concentration (µg/mL)	Inhibition Ratio (%)
Ribavirin	50	72.4
4	50	54.3
5	50	30.5
9	50	52.7
10	50	48.6

Figure S1. Animal material: The *sarcophyton* sp. was collected from the South Sea (Weizhou Islands sea area, Guangxi, China) at a depth of 12 m. The specimen was identified by Professor Zou, R.L. (South China Sea Institute of Oceanology, Chinese Academy of Sciences, Guangzhou, China). The voucher specimen (NO. WZD-2010-03) was deposited at State Key Laboratory of Marine Drugs, Ocean University of China, Qingdao, China.



Sarcophyton sp.

K6-8-6-4-3 7/6/2012 11:30:05 AM







Figure S3. ¹H-NMR (600 MHz, CDCl₃) spectrum of compound (1).



Figure S4. The amplificatory ¹H NMR (600 MHz, CDCl₃) spectrum of compound (1).



Figure S5. ¹H-NMR (600 MHz, C_5D_5N) spectrum of compound (1).



Figure S6. The amplificatory ¹H NMR (600 MHz, C_5D_5N) spectrum of compound (1).



Figure S7. ¹³C-NMR (150 MHz, CDCl₃) spectrum of compound (1).



Figure S8. DEPT (150 MHz, CDCl₃) spectrum of compound (1).



Figure S9. ¹H-¹H COSY spectrum of compound (1).



Figure S10. HMQC spectrum of compound (1).



Figure S11. HMBC spectrum of compound (1).



Figure S12. NOESY spectrum of compound (1).

201200907-6-8-5-3-2_120906155821 9/7/2012 10:12:52 AM 6-8-5-3-2 201200907-6-8-5-3-2_120906155821 #55-57 RT: 1.45-1.50 AV: 3 NL: 1.27E6 T: FTMS + p ESI sid=45.00 Full ms [100.00-2000.00] 497.3614 C₃₀ H₅₀ O₄ Na = 497.3601 2.4723 ppm 100 -95 90 85 28 80 30 75 23 70 27 29 65 Relative Abundance 60 15 н 55 HO 50 OF OF 45 40 513.3353 35 30 439.3579 699.4101 743.4366 25 787.4630 20 421.3476 655.3837 831.4900 595.3830 15 551.3567 274.2752 10 457.3683 302.3065 365.1064 5 0 300 350 400 450 550 500 600 650 700 800 750 m/z

Figure S13. The positive HRESIMS spectrum of compound (2).



Figure S14. ¹H-NMR (600 MHz, C₅D₅N) spectrum of compound (2).



Figure S15. The amplificatory ¹H NMR (600 MHz, C₅D₅N) spectrum of compound (2).



Figure S16. ¹³C-NMR (150 MHz, C_5D_5N) spectrum of compound (2).



Figure S17. DEPT (150 MHz, C₅D₅N) spectrum of compound (2).



Figure S18. ¹H-¹H COSY spectrum of compound (2).



Figure S19. HMQC spectrum of compound (2).



Figure S20. HMBC spectrum of compound (2).



Figure S21 NOESY spectrum of compound (2).

6/13/2012 9:07:27 AM R6-7-5-2-1 20120613-R6-7-5-2-1_120612151233 20120613-R6-7-5-2-1_120612151233 #21-22 RT: 0.56-0.59 AV: 2 NL: 1.55E6 T: FTMS + p ESI Full ms [155.00-2000.00] 515.3357 C₂₉ H₄₈ O₆ Na = 515.3343 2.7609 ppm 100 -95 90 85 80 75 70 65 Relative Abundance 60 55 AcO, OH 50 н 45 40 н H 35 HO ^бн он 30 25 20 15 10 512.9188 517.3418 529.3153 5 509.1489 536.8801 498.9026 518.3441 483.2730 489.2832 +++++ 717 0 525 510 515 530 535 490 520 485 495 500 505 480 m/z

Figure S22. The positive HRESIMS spectrum of compound (3).



Figure S23. ¹H-NMR (600 MHz, CDCl₃) spectrum of compound (**3**).



Figure S24. The amplificatory ¹H NMR (600 MHz, CDCl₃) spectrum of compound (**3**).



Figure S25. ¹³C-NMR (150 MHz, CDCl₃) spectrum of compound (**3**).

核磁数据 R6-7-5-2-1;DEPT90;CDC13 -600 AcO Η OH -400 Ĥ HO ÖH OH -200 -0 核磁数据 fl (ppm) R6-7-5-2-1:DEPT135:CDC13 -600 -400 -200 -0 -200 -400 $130 \ 125 \ 120 \ 115 \ 110 \ 105 \ 100 \ 95 \ 90 \ 85 \ 80 \ 75 \ 70 \ 65 \ 60 \ 55 \ 50 \ 45 \ 40 \ 35 \ 30 \ 25 \ 20 \ 15 \ 10 \ 5 \ 0 \ -5 \ -10$ fl (ppm) ⊢400 核磁数据 R6-7-5-2-1; DEPT135; CDC13 -300 -200-100 -0 --100 --200 -300 130 125 120 115 110 105 100 95 90 85 80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 -5 -10

Figure S26. DEPT (150 MHz, CDCl₃) spectrum of compound (3).











Figure S29. HMBC spectrum of compound (3).



Figure S30. NOESY spectrum of compound (3).