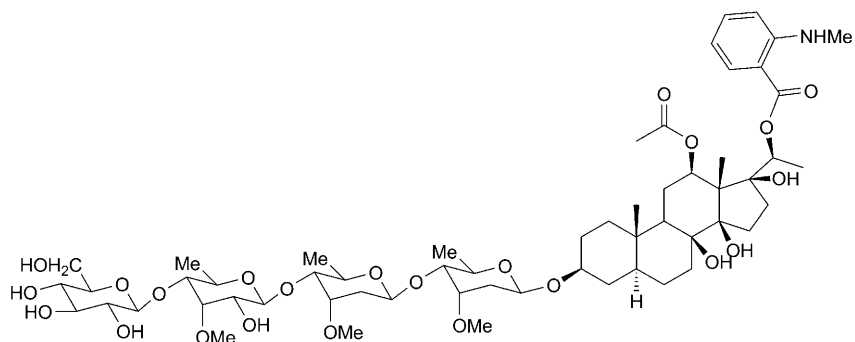


^b Feng-Yang Chen), Yi-Ping Ye*), Hong-Xiang Sun^{a,b}), Xiao-Yu Li), Hong Shi)
) 310013, . C (: 86-(0)571-8821 5624; : 86-(0)571-8821 5624;
 : 2005@163.
) C A , 268, 310029, . C
 (: 86-(0)571-8697 1091; : 86-(0)571-8697 1091; - : @.)

Stephanotis mucronata,
in vitro.

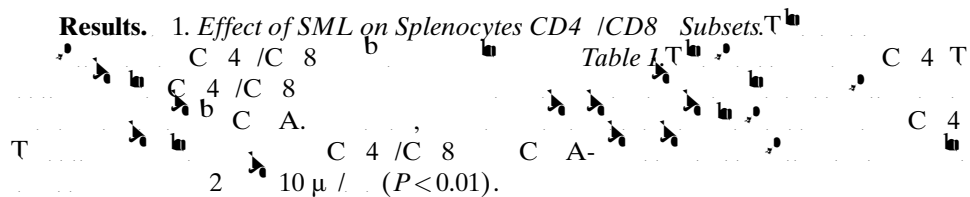
Introduction. *Stephanotis mucronata* (BLANCO) ERR. (A) *in vitro* 2 6. (Fig. 1) A (C A)- *in vitro* 6. T₁ T₂ b T₁ T₂ 2 T₁ T₂ 1- T₁ T₂ 1- (-γ, -2.



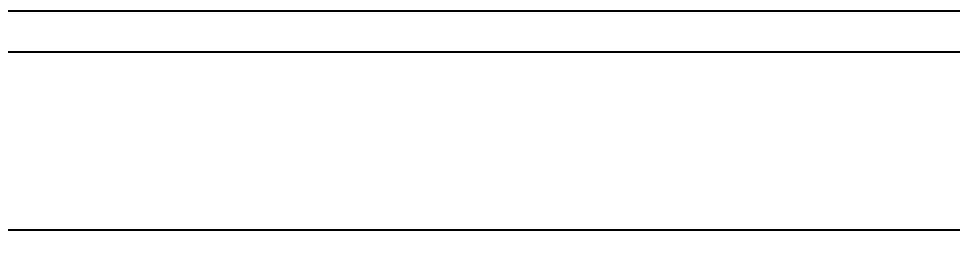
Formula: $C_{58}H_{91}NO_{23}$, M_r : 1192.5914

1. Chemical structure of stemucronatoside L ()

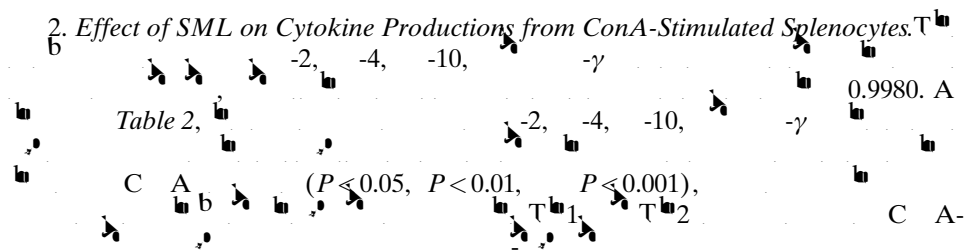
Results. 1. Effect of SML on Splenocytes CD4⁺/CD8⁺ Subsets.



1. Effects of Stemucronatoside L () on Splenocytes CD4⁺/CD8⁺ Subsets.



2. Effect of SML on Cytokine Productions from ConA-Stimulated Splenocytes.



2. Effects of Stemucronatoside L () on Cytokine Production from Con A-Stimulated Mice Splenocytes.

(3 μ /) 24 T b 0 10 μ / C A (-2, -4, -10, - γ A.T b \pm (n 3).

	C	3 μ /	24 T b	0 10 μ /	C A
	-2	-4	-10	- γ	
C	20 \pm 10	2.33 \pm 0.33	20 \pm 1	936 \pm 197	
C A	636 \pm 15	9.13 \pm 0.11	204 \pm 18	3366 \pm 265	
C A \pm (0.08 μ /)	495 \pm 58)	6.35 \pm 0.57 ^b)	165 \pm 5)	1931 \pm 216 ^b)	
C A \pm (0.4 μ /)	488 \pm 51 ^b)	5.92 \pm 0.66 ^b)	146 \pm 15)	1266 \pm 127)	
C A \pm (2.0 μ /)	452 \pm 41 ^b)	4.83 \pm 0.88 ^b)	135 \pm 8 ^b)	1241 \pm 91)	
C A \pm (10 μ /)	301 \pm 56)	2.60 \pm 0.28)	76 \pm 15)	1011 \pm 63)	

) $P < 0.05$, ^b) $P < 0.01$, ^c) $P < 0.001$.

3. Effect of SML on Expression of Cytokines and Transcription Factor mRNAs in ConA-Stimulated Splenocytes.

Fig. 2 Table 3. (P<0.05, P<0.01, P<0.001), (P<0.05, P<0.01, P<0.001), (P<0.05, P<0.01, P<0.001)

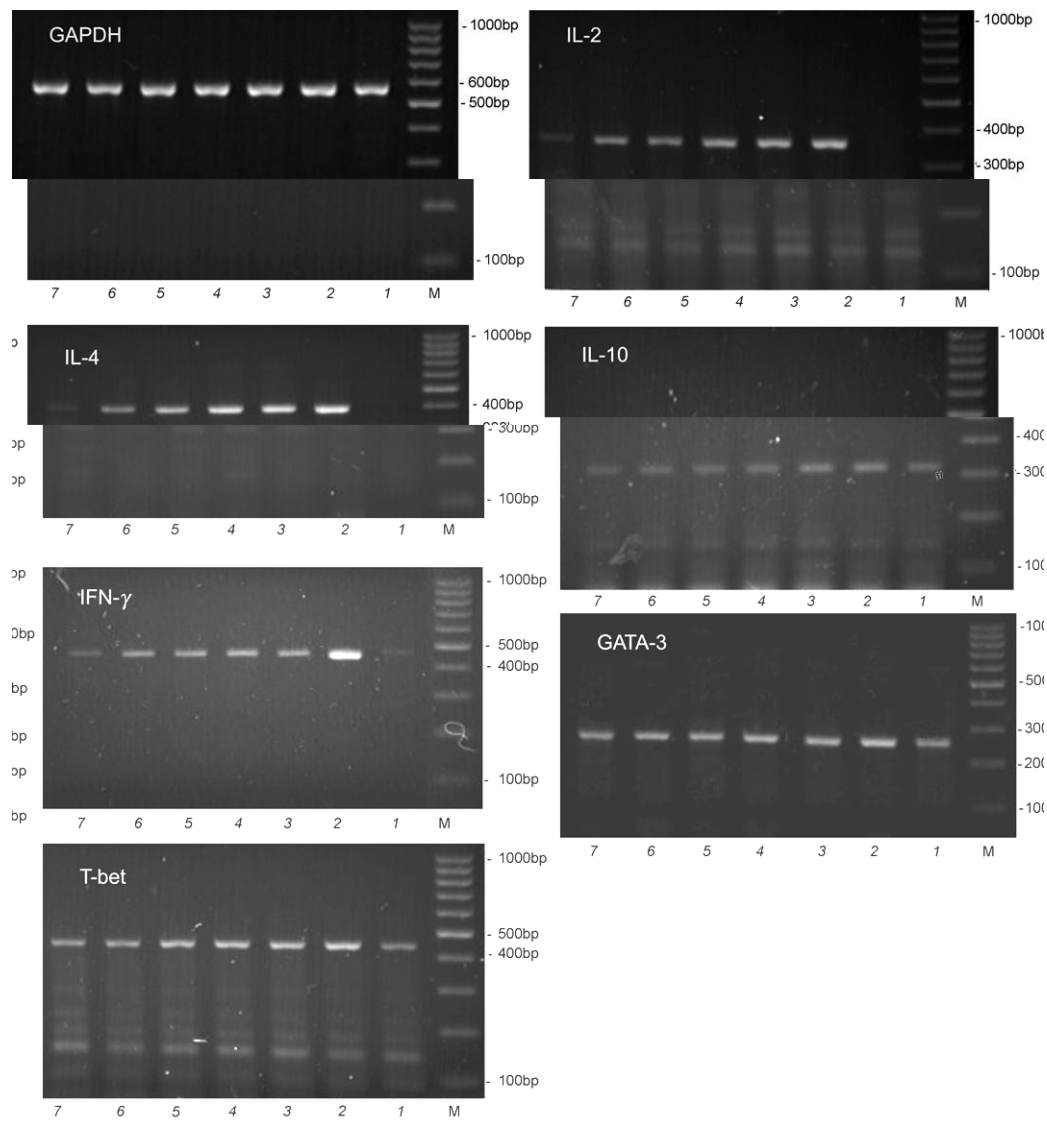
Discussion.

3. The mRNA Expression Level of Cytokines and Transcription Factors in Mice Splenocytes Treated with Stemucronatoside L () and Con A.

() 0 10 μ / C A (3 μ /) 16 T b -2, - γ , -4, -10, T b A A-3 A \pm (n 3).

	C	3 μ /	16 T b	-2	- γ	-4	-10	T b	A A-3	A
	0	0.016	0.08	0.4	2	10				
-2	0.49 \pm 0.01	0.42 \pm 0.02)	0.41 \pm 0.02 ^b)	0.30 \pm 0.03)	0.28 \pm 0.04)	0.09 \pm 0.01)				
- γ	0.45 \pm 0.03	0.21 \pm 0.03)	0.19 \pm 0.03)	0.18 \pm 0.03)	0.15 \pm 0.03)	0.09 \pm 0.02)				
-4	0.39 \pm 0.03	0.33 \pm 0.01)	0.33 \pm 0.01)	0.33 \pm 0.01)	0.27 \pm 0.02 ^b)	0.22 \pm 0.02)				
-10	0.52 \pm 0.04	0.42 \pm 0.04)	0.41 \pm 0.01)	0.30 \pm 0.01)	0.28 \pm 0.01)	0.05 \pm 0.01)				
A A-3	0.39 \pm 0.02	0.34 \pm 0.02)	0.26 \pm 0.01)	0.22 \pm 0.01)	0.21 \pm 0.01)	0.13 \pm 0.01)				
A	0.51 \pm 0.07	0.38 \pm 0.03)	0.37 \pm 0.01)	0.37 \pm 0.05)	0.37 \pm 0.02)	0.27 \pm 0.01 ^b)				

) $P < 0.05$, ^b) $P < 0.01$, ^c) $P < 0.001$.



2. The mRNA expression level of GAPDH, cytokines and transcription factors in mice splenocytes treated with stemucronatoside L () and ConA. 10^6 cells were treated with ConA (3 μ g/ml) for 16 h. T-bet, IL-2, IL-4, IL-10, IFN- γ , GATA-3, and GAPDH mRNA levels were analyzed by RT-PCR. Lane M: DNA ladder, Lane 1: ConA (3 μ g/ml), Lane 2: C A (0.08 μ g/ml), Lane 3: C A (0.4 μ g/ml), Lane 4: C A (0.016 μ g/ml), Lane 5: C A (0.008 μ g/ml), Lane 6: C A (2 μ g/ml), Lane 7: C A (10 μ g/ml).

■ ■ Zhejiang Provincial Natural Science Foundation of China (. 206439)
Zhejiang Provincial Medicinal Health Program of China (. 2006 004)

General. C A, (C A) 3-(4,5- -2- -2,5- -2H-
(TT) Sigma Chemical Co., A; RPMI 1640
Gibco BRL, A; (TC)-
C 4(3' 4, 129.19) ()- C 8(-2,
53-6.7) BD Biosciences Pharmingen, CA, A; (-2,
-4, -10) A; Wuhan Boster Biological Technology, Ltd.,
Trizol Invitrogen, C A, A; C
Shanghai Sangon Biological Engineering Technology & Services Co., Ltd.,
(B) Hangzhou Sijiqing Corp.,

1192.5914) *Stephanotis mucronata*

RPMI-1640 0.1%
 Experimental Animals. Zhejiang Experimental Animal Center (C 2003-0001, 18 22 ad libitum, 24±1°, 50±10%, 12/12).
 Institute for Experimental Animals, Committee for Animal Experiments.
 Preparation of Splenocytes. Hank's B (B; Sigma), (0.8% (w/v)). A (1500×g 4° 10 min), B (RPMI 1640 12 M HEPES (7.1), 0.05 M 2- 100 μ / 100 μ / 10% C). C 95%.
 Flow Cytometry. 3524) 5×10⁶ / 1 (RPMI 1640 0.016, 0.08, 0.4, 2, 10 μ / 5% C₂ 37°, 2 (A 48 B 5% C₂ 37°, C 4 C 8 A AC).
 CellQuest 3.0f (BD Biosciences Pharmingen, CA, A)
 Measurement of Cytokines. 1400×g 5, 96-b 1.5 (b 2). 37° 1 b 30 100 μ T B (b b (ABC). A 15 T 450 5% C₂ 37° A 24 -2, -4, -10, -γ 37°
 RT-PCR for Cytokine and Transcription-Factor Gene Expression. 5×10⁶ / 4 (RPMI 1640 0.016, 0.08, 0.4, 2, 10 μ / 5% C₂ 37°, 8 A 16 B 0.5 Trizol A 260 A T 0.5 A
 M-MuLV Reverse Transcriptase (Fermentas, C 0441). A 1 T A, 10 M T 25 M C, 0.5 μ 20 μ C (50 M C, 20 M Tris C, 8.4) C 27 (A -γ), 29 (A A-3), 31 (-2 T-b), 33 (-4 -10) PTC-200 Thermal Cycler (MJ Research, A) 94° 2, 55° (-2, A A-3, T-b), 57° (A), 58° (-4, -10, -γ) 50, 72° 0.5 A : 5'-
 CCCACA T AAAT CAAC CAC-3' 5'-CAT TTA AACAC A-3' A
 (570 bp) 24, 5'-CT CACA C AA CACA C-3' 5'-CAT C C C CA AAA T C-

- 1 T^h , , , B C B , B C B (C^h) ,
1975, 270.
- 2 , , C , , , Chin. J. Chem. **2007**, 25, 698.
- 3 , , C , , , Helv. Chim. Acta **2004**, 87, 2378.
- 4 , , , , Acta Chim. Sin. **2003**, 12, 1991.
- 5 , , C , , , Steroids **2005**, 70, 791.
- 6 , , C , , , Bioorg. Med. Chem. Lett. **2006**, 16, 4586.
- 7 , , A. C , , , Phytochemistry **1993**, 34, 1615.
- 8 , , B , , T , , T , , T. A^b , T. ,
 , Chem. Pharm. Bull. **1980**, 28, 1954.
- 9 , , , , Sci. Sin., Ser. B **1985**, 8, 724.
- 10 , , , , Acta. Pharm. Sin. **1994**, 29, 281.
- 11 , , T , , , J. Nat. Prod. **2004**, 67, 82.
- 12 , , , , C , , , Planta Med. **2005**, 71, 7.
- 13 , , , , T , , T , ,
 , J. Pharmacol. Exp. Ther. **2006**, 316, 662.
- 14 , A. C , , , Curr. Opin. Immunol. **2002**, 14, 771
- 15 , A , , C , , B , , A. ^b , , , , J. Clin.
Immunol. **2003**, 23, 147.
- 16 , , , , Nat. Rev. Immunol. **2002**, 2, 933.
- 17 , , , , Biosystems **2006**, 84, 101.
- 18 T , , , , Immunol. Today **1996**, 17, 138.
- 19 , B , , , Acta. Pathol. Microbiol. Scand. **1995**, 103, 161.
- 20 , , , C , , , J. Autoimmun. **2003**, 20, 281.
- 21 , , , , Curr. Opin. Immunol. **2002**, 14, 791.
- 22 A. , , C , , , J. Theor. Biol. **2004**, 231, 181.
- 23 , , , , Vaccine **2004**, 22, 3882.
- 24 , , A. C , , , Vaccine **2007**, 25, 161.
- 25 , A. C , , , C^h ^b , , , ,
 , Kobe J. Med. Sci. **2002**, 48, 167.
- 26 , , , T , , , Immunol. Lett. **2006**, 103, 108.
- 27 , , , , , Mol. Immunol. **2007**, 44, 521.
- 28 T , , , C-C , , , Planta Med. **2007**, 73, 421.

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