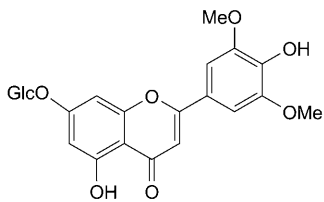




22 23 .  
 2 20 .  
 C 27 30 ,  
 ( )  
 S. sarmentosum  
 S. sarmentosum  
 2 5 ,  
 2 .  
 in vitro in vivo.

**Results and Discussion.**

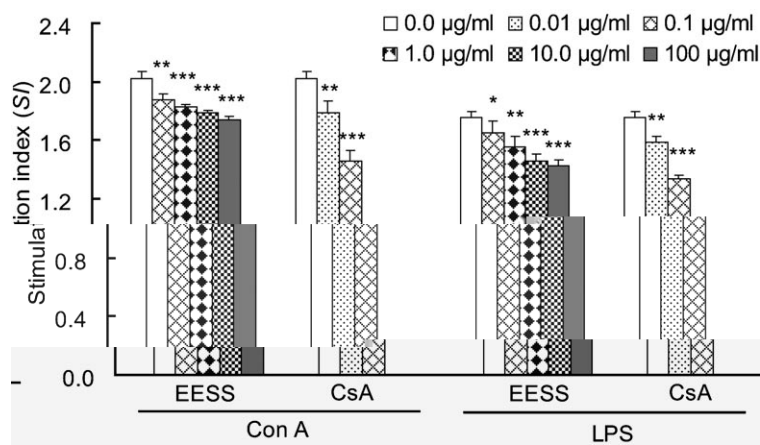
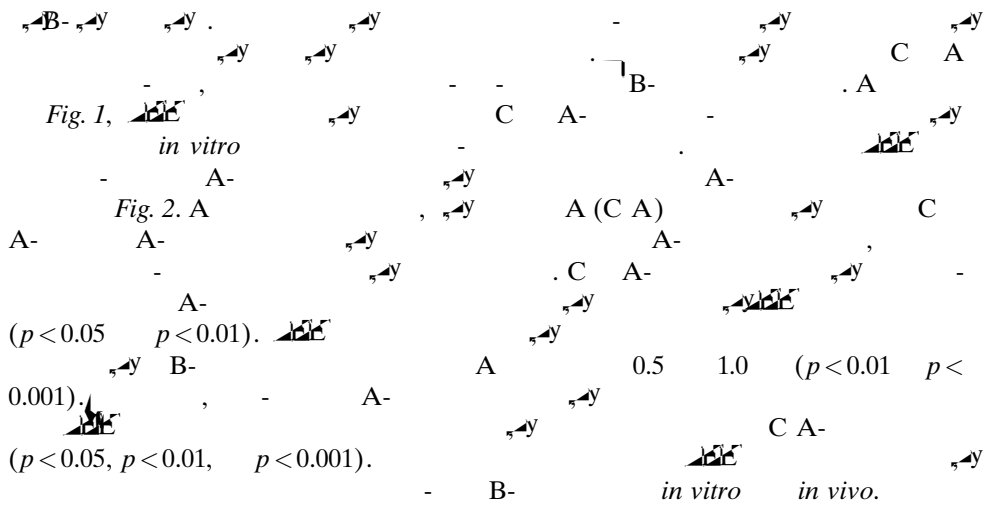
31 .  
 32 33 . A  
 in vitro in vivo,  
 B (1), -7-O-β-D-



Tricin-7-O-β-D-glucopyranoside (1)  
(Glc = β-D-glucopyranosyl)

1. Effect of EESS on Splenocyte Proliferation and

A  
 B-  
 A



1. Effect of the EtOH extract of *E. coli* (EESS) on mitogen-stimulated splenocyte proliferation (SI; *Exper. Part*). Values are expressed as mean  $\pm$  SD (n = 4). \**p* < 0.05, \*\**p* < 0.01, \*\*\**p* < 0.001. C: Control, A: Con A.

2. Effect of EESS on the OVA-Specific Serum Antibody Response in OVA-Immunized Mice.

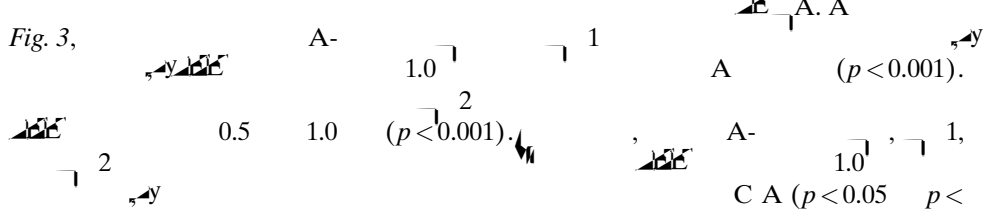
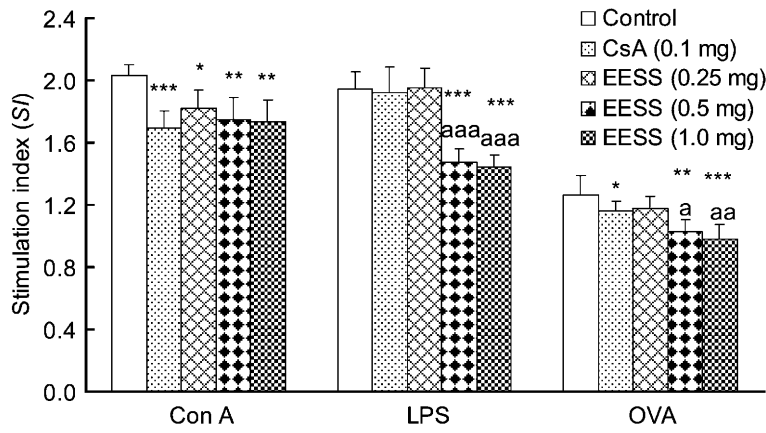
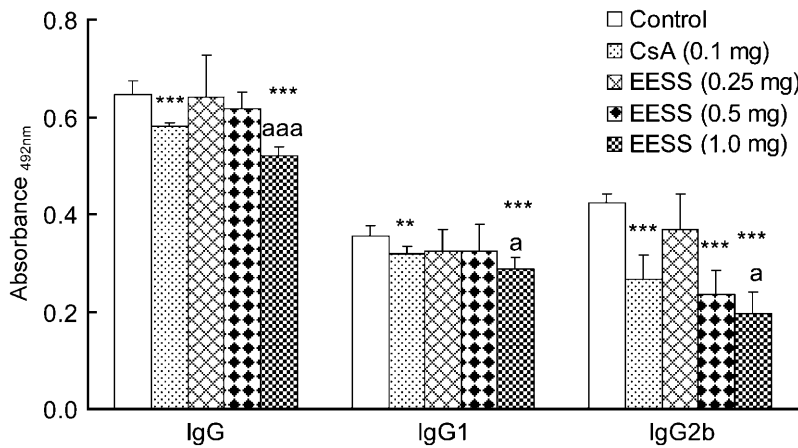


Fig. 3. Effect of EESS on the OVA-specific serum antibody response in OVA-immunized mice. Values are expressed as mean  $\pm$  SD (n = 4). \**p* < 0.05, \*\**p* < 0.01, \*\*\**p* < 0.001. C: Control, A: Con A.



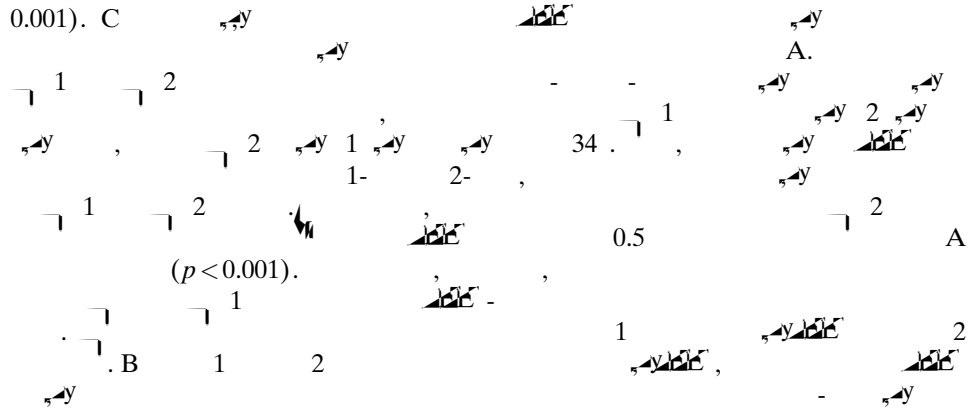
2. Dose-dependent inhibitory effect of the EtOH extract of *C. albicans* on OVA- or mitogen-stimulated splenocyte proliferation in OVA-immunized mice.

Experimental design: Mice were immunized with OVA (100 µg) and stimulated with Con A (1 µg/ml), LPS (10 µg/ml), or OVA (10 µg/ml) in the presence of CsA (0.1 mg/ml) or EESS (0.25, 0.5, 1.0 mg/ml). Splenocyte proliferation was measured by <sup>3</sup>H-thymidine incorporation. Data are expressed as mean ± SD (n = 5). Statistical significance is indicated by asterisks (\*p < 0.05, \*\*p < 0.01, \*\*\*p < 0.001) and letters (a, aa, aaa).



3. Dose-dependent inhibitory effect of the EtOH extract of *C. albicans* on OVA-specific IgG, IgG1, and IgG2b antibodies in OVA-immunized mice.

Experimental design: Mice were immunized with OVA (100 µg) and stimulated with Con A (1 µg/ml), LPS (10 µg/ml), or OVA (10 µg/ml) in the presence of CsA (0.1 mg/ml) or EESS (0.25, 0.5, 1.0 mg/ml). Antibody levels were measured by ELISA. Data are expressed as mean ± SD (n = 5). Statistical significance is indicated by asterisks (\*\*p < 0.01, \*\*\*p < 0.001) and letters (a).



3. Immunosuppressive Activity of Four Fractions of EESS.

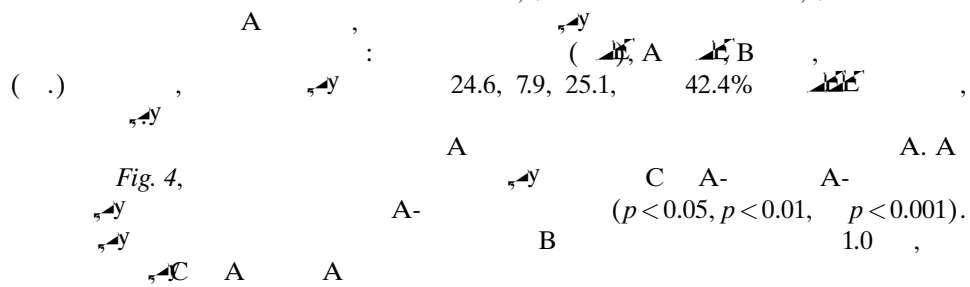


Fig. 4.

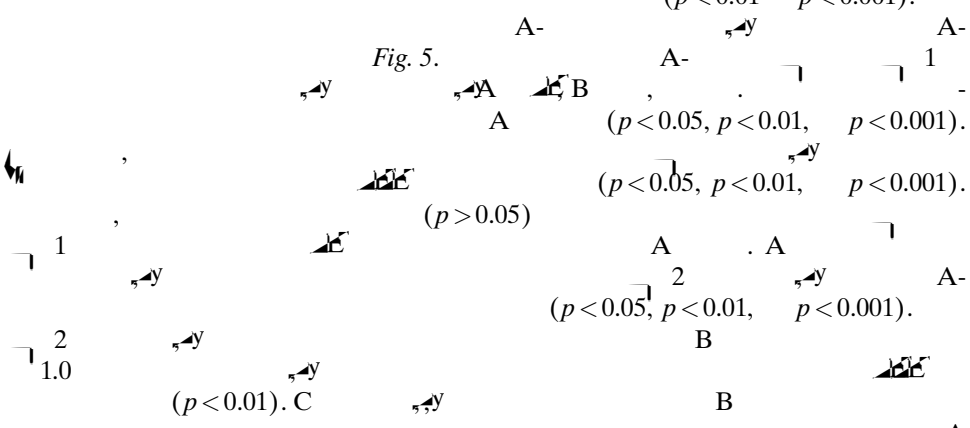
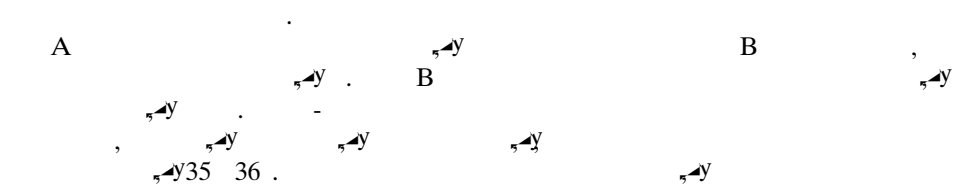
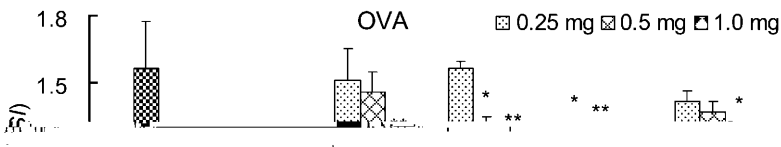
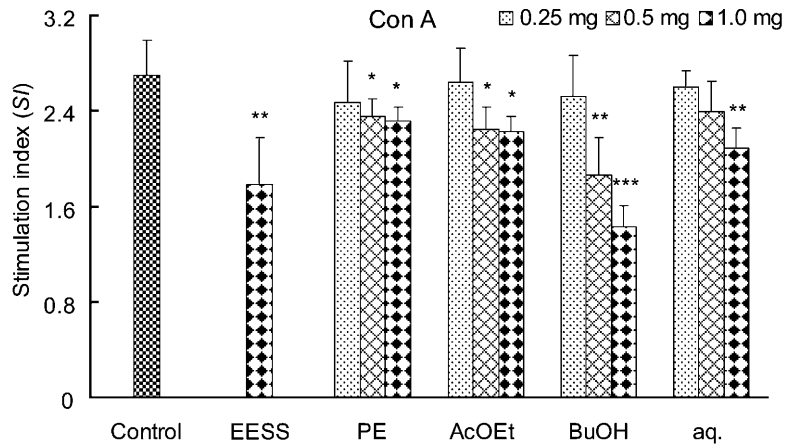


Fig. 5.



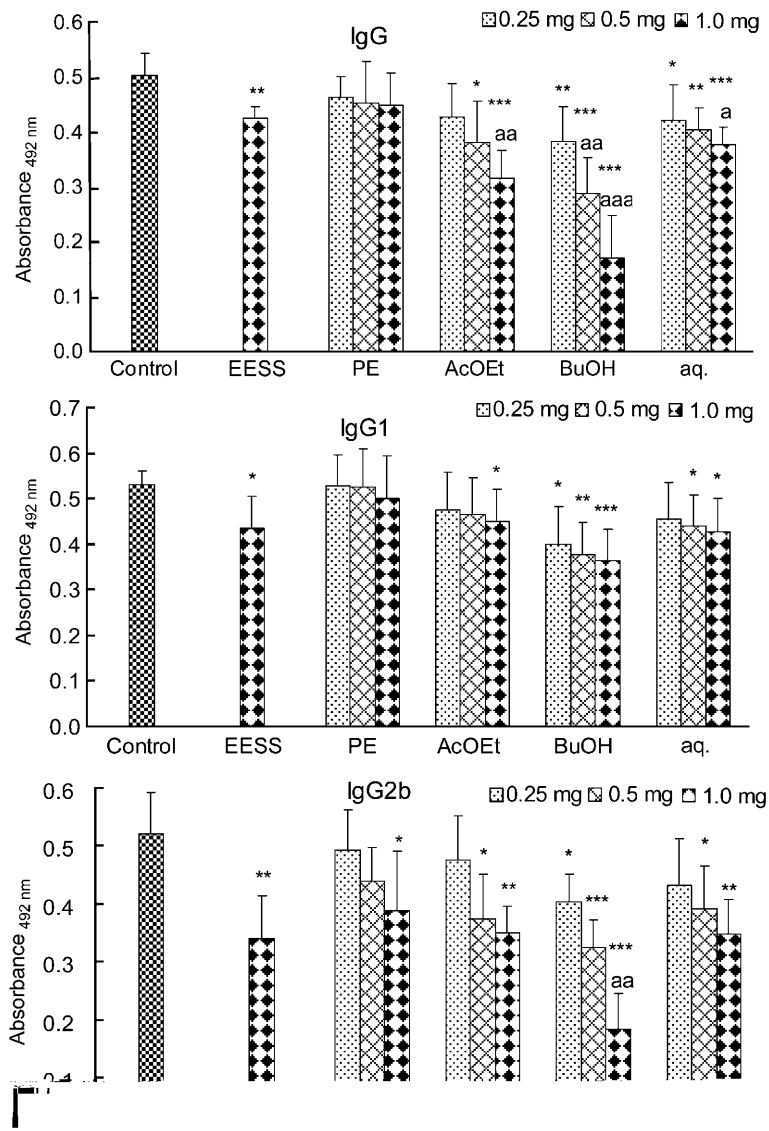
35 36 .



4. Effect of the EtOH extract of *... (1)*, and its fractions on Con A- and OVA-stimulated splenocyte proliferation in OVA-immunized mice. C

A 14, 0.25, 0.5, 1.0 7 5 (SI; Exper. Part).  
 (n = 5).  
 \*: p < 0.05, \*\*: p < 0.01, \*\*\*: p < 0.001.

B  
 Sephadex LH-20  
 37 38  
 -7-O-β-D- (1), -7-O-β-D-  
 -3-O-β-D-  
 -3,7- -O-α-L-  
 -3-O-α-(6''')-  
 -3'-O-β-D-  
 -7-O-α-L-  
 -3'-O-β-D-



5. Effect of the EtOH extract of *...* (C & B), and its fractions on OVA-specific IgG, IgG1, and IgG2b antibodies in OVA-immunized mice.

A 14, 0.25, 0.5, 1.0 mg/kg, 7, 5, A- (Exper. Part).  $\pm$  (n 5). \* : p < 0.05, \*\* : p < 0.01, \*\*\* : p < 0.001; : p < 0.01, : p < 0.001. ; A ; B :

1  
 in vitro 39 . , 1  
 B . 1 B  
 3.44±0.05% .  
 S. sarmentosum.  
 in vitro in vivo

**Conclusions.**

in vitro, C A-  
 A- . A , B  
 S. sarmentosum  
 C

**Experimental Part**

**General.** ( A ), 3-(4,5- -2--2,5- 2H-  
 A (C A), ( ), -1640 ,  
 Sigma Chemical Co. ( A ),  
 Southern Biotech. Assoc. ( B , A ,  
 ( C ) Hangzhou Sijiqing Corp.,  
 ( A ) Zhejiang Wanma Pharm Co. Ltd, A (C A, )  
 Hangzhou Huadong Medicine Co. Ltd, Z , C .

**Experimental Animals.** ( C ) 18 22  
 Zhejiang Experimental Animal Center ( C ) 22-2001001, , C )  
 1 . ad libitum,  
 24±18, 50±10%, 12- /12-  
 . A . C  
 Institute for Experimental Animals

**Plant Material.** Sedum sarmentosum BUNGE , Z  
 , C , 2004. A ( . 20040612)

Laboratory of Nature Drug, C A , Z , C ,  
 . Xiang-Ji Xue C , Z

**Preparation and Analysis of Extract.** S. sarmentosum 408  
 ( 3 ) 70%  
 2 . A (1700×g, 30 ),  
 458 ca.  
 157.15 ( ; 5.24% (w/w)).  
 ( A B ) .  
 A B , B

0.22-μ Millipore , C.  
 1 B Symmetry® C18 (250 ×  
 4.6 . , 5 μ ) / 2 35:65  
 Waters 2996 PDA  
 A . 10 /  
 0.22-μ Millipore , 0.89%



*Limulus* (Zhejiang A and C Biological, Z, C).  
 Splenocyte Proliferation Assay. Hank' (Sigma),

(1500 × g 48 10),  $^{14}C$  (0.8% (w/v)). A  
 (1640 12 M HEPES (7.1), 0.05 M 2-  
 100 μ / 100 μ / 10% C). C  
 28 . B . C 95%.  
 (Nunc)  $1 \times 10^7$  / 100 μ 96-  
 (5 μ / ), (10 μ / ), 1640 C A  
 (0.1 100.0 μ / ) 200 μ (C A  
 ). 378 5% C 2. A 44 , 50 μ  
 . (2 / ) 4 . (1400 ×  
 g, 5 ), 200 μ  
 (192 μ 8 μ 1 C<sup>H</sup>)  
 A 570 630- 15 . (SI)  
 : SI

*Administration and Immunization.*

28 .  
 200 μ A 1 Alum 0.2  
 . B  
 0.25, 0.5,  
 1.0 ( ) 0.1 0.2 . 7 A (C A,  
 .  
 A-

*Splenocyte Proliferation Assay.*

96- (Nunc)  $1 \times 10$  m

Statistical Analysis.

Student' t- , p < 0.05

± . . ,

Zhejiang Provincial Science and Technology Council ( . . )

2004 13 1360002)

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