

研究简报

东方田鼠IgG3抗体抗血吸虫病作用研究

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摘要

采用ELISA方法, 平行检测东方田鼠、BALB/c小鼠和昆明小鼠在攻击感染前、后的血清抗血吸虫童虫(SSA)、成虫(SAWA)和虫卵(SEA) IgG3抗体水平, 并进行体内、外试验, 观察IgG3抗体抗血吸虫效应。结果攻击感染后第4周, 东方田鼠抗SSA和SAWA的IgG3抗体水平增幅较大, 分别较感染前增加79.6%和49.6%, BALB/c小鼠IgG3抗体在攻击感染后无明显增加。野生和室内繁殖的东方田鼠的IgG3抗体所致童虫死亡率分别为昆明小鼠的5.88和2.35倍, 前者还诱生出较高的减虫率(39.8%)。提示东方田鼠IgG3抗体可能是其抗血吸虫感染的主要免疫物质。

关键词 [东方田鼠](#) [IgG3抗体](#) [血吸虫](#)

分类号

Effect of IgG3 Antibody Purified from Sera of *Microtus fortis* Against *Schistosoma japonicum*

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Abstract

IgG3 antibody reaction to soluble antigens prepared from schistosomula (SSA), adult worms (SAWA) and eggs (SEA) in laboratory-bred *Microtus fortis* (Mf), BALB/c mice and Kunming (Km) mice challenged by cercariae of *Schistosoma japonicum* was detected by indirect ELISA. The effect of purified IgG3 antibody on in vitro killing schistosomula and protecting mice from infection of *S. japonicum* was evaluated. The IgG3 antibody level in Mf against SSA and SAWA increased significantly by 79.6 percent and 49.6 percent after the fourth week of challenge infection, but no significant increase in BALB/c mice.

Purified IgG3 antibody from laboratory-bred Mf and wild Mf effectively killed schistosomula, and that of the wild Mf induced higher worm-reduction rate. The death rate of schistosomula due to IgG3 antibody purified from sera of laboratory-bred Mf and wild Mf was 2.35 and 5.88 times as high as that of Km mice respectively. The results suggest that IgG3 antibody from *Microtus fortis* may play an important role in immunity against *S. japonicum*.

Key words [Microtus fortis](#) [IgG3 antibody](#) [Schistosoma japonicum](#)

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