

论著

## 用噬菌体随机肽库鉴定日本血吸虫22.6kDa抗原分子的表位

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摘要

目的 筛选和鉴定日本血吸虫(中国大陆株)22.6kDa抗原(Sj22.6)的表位。方法 用纯化的抗Sj22.6的多克隆抗体IgG对噬菌体十二肽库进行5轮免疫学筛选,挑取克隆;采用Westernblotting免疫识别,将获得的阳性克隆免疫小鼠,并采用dot ELISA筛选能刺激小鼠产生较高滴度抗Sj22.6抗体的阳性克隆;测定核苷酸序列,分析其表位与Sj22.6抗原的同源性。结果 经5轮免疫学筛选后挑取的14个克隆,用Westernblotting方法均能被抗Sj22.6抗体识别。经动物免疫初步实验筛选,共获得6个免疫原性较强的阳性克隆,测序结果获得4种不同表位,其中1种表位与Sj22.6抗原具有较高的同源性,其余3种表位与其无一级结构的同源性。结论 获得的4种日本血吸虫中国大陆株抗原表位,1种可能为结构表位,3种为模拟表位

关键词 [噬菌体肽库](#) [表位](#) [日本血吸虫](#) [抗原](#) [Sj22.6](#)

分类号

## Identification of Epitope of 22.6 kDa Antigen of Schistosoma japonicum with Phage-displayed Random Peptide Library

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Abstract

Objective To identify the epitopes of 22.6 kDa antigen of Schistosoma japonicum (Sj22.6). Methods A 12 mer library displayed on pIII of fd phage was used to screen the epitopes of Sj22.6 with the purified multiple clone IgG antibody against the Sj22.6 antigen. Five rounds of biopanning were carried out and fourteen clones from the fifth round biopanning were randomly selected and identified by Western blotting. The mice were immunized with the obtained positive clones and the antibody titers of sera from the mice were detected. The clones which could stimulate the mice to produce anti Sj22.6 antibodies were sequenced and their amino acid sequences were compared with that of Sj22.6. Results Six clones selected from the fourteen ones could stimulate the mice to produce anti Sj22.6 antibodies analysed by Western blotting. The amino acid sequence of one epitope showed high homology with Sj22.6. Conclusion Four epitopes of Sj22.6 were obtained. One may be a structure epitope and the other three were mimic epitopes.

Key words [phage display peptide library](#) [epitope](#) [Schistosoma japonicum](#) [antigen](#) [Sj22.6](#)

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