

论著

重组日本血吸虫特异性IgE相关蛋白的纯化及免疫学活性鉴定

王勇, 苏川, 张兆松, 胡雪梅, 刘丰, 李春林, 季旻珺, 朱翔, 吴观陵

南京医科大学医学分子生物学研究所分子免疫寄生虫学研究室 南京210029

收稿日期 修回日期 网络版发布日期 接受日期

摘要

目的 纯化重组日本血吸虫特异性IgE抗体相关蛋白和鉴定其免疫原性。方法 大量表达Sj43B/pGEX 6p 1 /BL2 1重组克隆菌,超声粉碎后离心获得融合表达的重组蛋白包涵体。经TNMFX缓冲液分步洗涤后,将包涵体溶解液经FPLC分离,获得重组融合蛋白组分,再经巯基二硫键转换复性后,用于免疫小鼠获得抗血清,分别用dot ELISA法和Western blotting法对融合蛋白引起的特异性血清抗体同型反应进行鉴定。结果 分步洗涤可有效去除重组蛋白包涵体沉淀中混杂的多数杂蛋白成分,FPLC分离可获得高纯度重组蛋白。用复性后的重组融合蛋白免疫小鼠,其中目的蛋白可引起特异性IgE抗体反应,而担体蛋白 2 6kDaGST不引起特异性IgE应答,可引起特异性IgG抗体反应,目的蛋白则否。结论 重组质粒Sj43B/pGEX 6p 1表达的融合蛋白,其目的蛋白部分免疫小鼠可产生特异性IgE抗体。

关键词 [日本血吸虫](#) [IgE](#) [融合蛋白](#) [包涵体](#) [蛋白纯化](#)

分类号

Purification and Immunogenicity Identification of the Recombinant Protein Related with Specific IgE against *Schistosoma japonicum*

WANG Yong, SU Chuan, ZHANG Zhao song, HU Xue mei, LIU Feng, LI Chun lin, JI Min jun, ZHU Xiang, WU Guan ling

Laboratory of Molecular Immunoparasitology; Institute of Medical Molecular Biology; Nanjing Medical University; Nanjing 210029

Abstract

Objective To purify the specific IgE antibody related recombinant protein of *Schistosoma japonicum* and to identify its immunogenicity. Methods The recombinant plasmid Sj43B/pGEX 6p 1 was expressed in *E. coli* BL 21. The inclusion body of the fusion protein was washed by TNMFX buffer and separated by FPLC. After renaturation, the fusion protein was used to vaccinate the mice. The specific IgG and IgE antibodies were detected by dot ELISA and Western blotting analysis, respectively. Results Most of the proteins mixed with the inclusion body of the recombinant protein could be eliminated by washing with TNMFX buffer. The purified recombinant fusion protein could be obtained by FPLC separation. The experiment on mice immunized with the fusion protein showed that the specific IgE antibody was generated against the target part of the fusion protein, but not the specific IgG antibody. Conclusion The fusion protein expressed by the recombinant plasmid Sj43B/pGEX 6p 1 could induce specific IgE response of the immunized mice.

Key words [Schistosoma japonicum](#) [IgE](#) [fusion protein](#) [inclusion body](#) [protein purification](#)

DOI:

通讯作者

作者个人主页 王勇; 苏川; 张兆松; 胡雪梅; 刘丰; 李春林; 季旻珺; 朱翔; 吴观陵

扩展功能

本文信息

- ▶ [Supporting info](#)
- ▶ [PDF \(362KB\)](#)
- ▶ [\[HTML全文\]\(OKB\)](#)

▶ [参考文献\[PDF\]](#)

▶ [参考文献](#)

服务与反馈

▶ [把本文推荐给朋友](#)

▶ [加入我的书架](#)

▶ [加入引用管理器](#)

▶ [复制索引](#)

▶ [Email Alert](#)

▶ [文章反馈](#)

▶ [浏览反馈信息](#)

相关信息

▶ [本刊中包含“日本血吸虫”的相关文章](#)

▶ 本文作者相关文章

- [王勇](#)
- [苏川](#)
- [张兆松](#)
- [胡雪梅](#)
- [刘丰](#)
- [李春林](#)
- [季旻珺](#)
- [朱翔](#)
- [吴观陵](#)