

论著

## 恶性疟原虫FCC1/HN株新抗原表达序列标记位(ESTs)的获得

阎宗合<sup>1</sup>,谢毅<sup>2</sup>,李明<sup>1</sup>,王萍<sup>1</sup>,王燕妮<sup>1</sup>,毕惠祥<sup>1</sup>,李英杰<sup>1</sup>

第一军医大学热带医学研究所热带病研究室,广州 510515;复旦大学遗传工程国家重点实验室,上海 200433

收稿日期 修回日期 网络版发布日期 接受日期

摘要

目的: 以筛选恶性疟原虫FCC1/HN株λgt11 cDNA表达文库所获得的强阳性克隆作基础,对上述强阳性克隆的cDNA插入片段进行DNA序列测定,阐明相对应的新表达序列标签(ESTs),作为发现新抗原基因的线索。方法:以cDNA表达文库接头的较长链作PCR引物、扩增cDNA插入片段,将扩增产物克隆入M13mp18测序载体,进行部分DNA序列测定、编辑,将之在GenBank中进行DNA序列同源性搜索比较和分析。结果:获得1个C03序列为已知恶性疟原虫热休克蛋白70-2基因片段,发现5个新的具有抗原意义的恶性疟原虫表达序列标记位(ESTs)。结论:这5个新的恶性疟原虫表达序列标记位为发现新的恶性疟原虫抗原基因奠定了基础。

关键词 [恶性疟原虫](#) [抗原](#) [cDNA](#) [表达序列标记位](#)

分类号

## FINDING OF NEW FCC1/HN ANTIGENIC EXPRESSED SEQUENCE TAG(ESTs) OF PLASMODIUM FALCIPARUM

YAN Zhonghe<sup>1</sup>,XIE Yi<sup>2</sup>,LI Ming<sup>1</sup>,WANG Ping<sup>1</sup>,WANG Yanni<sup>1</sup>,BI Huixiang<sup>1</sup>,LI Yingjie<sup>1</sup>

1 Department of Tropical Diseases; Institute of Tropical Medicine; The First Military Medical University; Guangzhou; 510515 2 State Key Laboratory of Genetic Engineering, Fudan University, Shanghai, 200433

Abstract

AIM: To sequence the strong positive clones obtained by immuno-screening of Plasmodium falciparum FCC1/HN λgt11 cDNA expression library, and to elucidate the antigenic expressed sequence tags through sequencing the cDNA insert of these positive clones, and new antigenic ESTs could serve as a resource to pursue their corresponding antigen genes. METHODS: cDNA inserts of positive λgt11 phage clones were amplified by PCR. The PCR products, after purification, were cloned into the M13 mp18 sequencing vector. Single-stranded M13 DNA was prepared and sequenced. Then the acquired sequences were compared in homologies with EMBL/GenBank database on the PC/GENE software system and searched in NCBI (National Center for Biotechnology Information) GenBank using BLAST (Basic Local Alignment Search Tool) command. RESULTS: Sequence C03 was part of the known P.falciparum antigenic heat shock protein 70 (Pfhsp70) gene, while the other 5 sequences were new P.falciparum antigenic expressed sequence tags (ESTs). CONCLUSION: The 5 new antigenic ESTs generated could serve as the breaking through points in our efforts to find out new P.falciparum antigen genes.

Key words [Plasmodium falciparum](#) [antigen](#) [cDNA](#) [expressed sequence tags](#)

DOI:

通讯作者

作者个人主页 阎宗合<sup>1</sup>;谢毅<sup>2</sup>;李明<sup>1</sup>;王萍<sup>1</sup>;王燕妮<sup>1</sup>;毕惠祥<sup>1</sup>;李英杰<sup>1</sup>

### 扩展功能

本文信息

- ▶ [Supporting info](#)
- ▶ [PDF\(277KB\)](#)
- ▶ [\[HTML全文\]\(OKB\)](#)
- ▶ [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“恶性疟原虫”的相关文章](#)
- ▶ 本文作者相关文章

- [阎宗合](#)
- [谢毅](#)
- [李明](#)
- [王萍](#)
- [王燕妮](#)
- [毕惠祥](#)
- [李英杰](#)