

未定

# 海南汉族、黎族人群纤维蛋白原基因九个位点核苷酸多态性及单体型 的比较研究

蔡望伟

海南医学院生物化学教研室

收稿日期 2006-3-29 修回日期 网络版发布日期: 2006-5-23

**摘要** 目的 研究海南汉族、黎族人群纤维蛋白原基因 $\alpha$ TaqI、 $\beta$ BclII/A、 $\beta$ HinfIA/C、 $\beta$ 448G/A、 $\beta$ BsmAIG/C、 $\beta$ +1689T/G、 $\beta$ -148C/T、 $\beta$ -249C/T、 $\beta$ -455G/A九个位点的等位基因频率、连锁不平衡关系及单体型。方法 从未梢血提取316名海南汉族个体和182名海南黎族个体的 DNA标本,用PCR-RFLP法及测序法分析多态性和确定基因型,用EH+程序分析核苷酸多态性的连锁不平衡关系及单体型,用卡方检验分析人群间的等位基因频率及单体型频率的差异。结果 纤维蛋白原基因 $\alpha$ TaqI、 $\beta$ BclII/A、 $\beta$ HinfIA/C、 $\beta$ 448G/A、 $\beta$ BsmAIG/C、 $\beta$ +1689T/G、 $\beta$ -148C/T、 $\beta$ -249C/T、 $\beta$ -455G/A的稀有等位基因频率在汉族人群中分别为0.429、0.255、0.128、0.255、0.302、0.267、0.282、0.468、0.274,在黎族人群中分别为0.312、0.363、0.150、0.344、0.328、0.350、0.331、0.626、0.350。海南汉族人群和黎族人群 $\alpha$ TaqI、 $\beta$ BclII/A、 $\beta$ 448G/A、 $\beta$ +1689T/G、 $\beta$ -249C/T、 $\beta$ -455G/A五个位点的稀有等位基因频率分布存在统计学差异( $P<0.01$ )。黎族人群九个位点两两之间的连锁不平衡的紧密程度比汉族人群高。部分单型型的分布在两个人群之间的分布存在统计学差异。结论 海南汉族、黎族人群纤维蛋白原基因的某些多态性及单型型的频率存在差异。

关键词

分类号

## Comparison of the nucleotide polymorphisms and haplotypes in fibrinogen gene between Hainan Han and Hainan Li populations

Wang-Wei CAI

海南医学院生物化学教研室

**Abstract** Objective To investigate the allelic frequencies, linkage disequilibrium and haplotypes of nine fibrinogen gene polymorphisms  $\alpha$ TaqI,  $\beta$ BclII,  $\beta$ HinfIA/C,  $\beta$ 448G/A,  $\beta$ BsamIG/C,  $\beta$ +1689T/G,  $\beta$ -148C/T,  $\beta$ -249C/T,  $\beta$ -455G/A in Hainan Han and Li populations in Hainan Province. Methods Genomic DNA was extracted from peripheral blood cells from 316 unrelated Han individuals and 182 unrelated Li individuals in Hainan. The polymorphisms were characterized by PCR-RFLP and sequencing. Hardy-Weinberg equilibrium was examined and statistical differences of allelic frequencies and haplotype frequencies were obtained by Chi square test. Pairwise linkage disequilibrium was calculated and haplotypes were estimated by the EH+ program. Results The rare allele frequencies of  $\alpha$ TaqI,  $\beta$ BclII,  $\beta$ HinfIA/C,  $\beta$ 448G/A,  $\beta$ BsamIG/C,  $\beta$ +1689T/G,  $\beta$ -148C/T,  $\beta$ -249C/T,  $\beta$ -455G/A were 0.429, 0.255, 0.128, 0.255, 0.302, 0.267, 0.282, 0.468, 0.274 respectively in Hainan Han population and 0.312, 0.363, 0.15, 0.344, 0.328, 0.35, 0.331, 0.626, 0.35 respectively in Hainan Li population. The rare allelic frequencies of  $\beta$ BclII, $\beta$ 448G/A, $\beta$ +1689T/G, $\beta$ -249C/T, $\beta$ -455G/A were significant different between the Han and Li populations( $P<0.01$ ). The linkage disequilibrium of the nine polymorphisms was much higher in Li population than in Han population. Some haplotypes frequencies were significant different between the two populations. Conclusion These results suggest ethnic differences in the polymorphisms and haplotypes of fibrinogen gene between the Han and Li populations in Hainan.

### 扩展功能

#### 本文信息

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

#### ▶ [参考文献](#)

#### 服务与反馈

- ▶ [把本文推荐给朋友](#)
- ▶ [加入我的书架](#)
- ▶ [复制索引](#)
- ▶ [Email Alert](#)
- ▶ [文章反馈](#)
- ▶ [浏览反馈信息](#)

#### 相关信息

- ▶ [本刊中 无 相关文章](#)
- ▶ [本文作者相关文章](#)
- [蔡望伟](#)

## Key words

DOI

---

通讯作者 蔡望伟 [caiww@hainmc.edu.cn](mailto:caiww@hainmc.edu.cn)