

论著

我国五省美洲钩虫COI基因序列多态性分析

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收稿日期 修回日期 网络版发布日期 接受日期

摘要

目的测定和比较四川、海南、云南、湖北、江苏五省美洲钩虫细胞色素氧化酶 I (COI) 基因序列,分析基因序列的多态性。方法应用PCR技术扩增美洲钩虫COI基因,并进行DNA测序和分子进化分析。结果五省的美洲钩虫COI基因序列相似性为97%~99%,但在其PCR扩增获得的595bp的COI基因片段上,共检出19个核苷酸位点上的变异,变异位点上转换明显多于颠换,基因序列差异值为1.34%~2.18%。结论五省的美洲钩虫COI基因序列具有很高的相似性,但特定碱基位点仍存在一定差异。

关键词 [美洲钩虫](#) [细胞色素C氧化酶](#) [基因差异](#) [序列分析](#)

分类号

Polymorphism Analysis of Cytochrome C Oxidase 1 COI Gene in *Necator americanus* Collected from 5 Provinces in China

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Abstract

Objective To detect and compare the COI gene sequences of *Necator americanus* collected from the provinces of Sichuan, Hainan, Yunnan, Hubei and Jiangsu, and to analyze the genetic diversity of the geographic isolates. Methods COI genes of *N. americanus* were amplified from the genomic DNA by PCR and sequenced. Results The COI gene sequences of *N. americanus* from five provinces were 97%-99% identical over 595 bp, and base variation occurred in 19 nucleotide sites in which the transition was more frequent than the transversion. The difference between the sequences ranged from 1.34% to 2.18%. Conclusion The COI gene sequences show high identity among the geographic isolates of *N. americanus* with some difference at specific nucleotide sites.

Key words [Necator americanus](#) [cytochrome C oxidase 1](#) [genetic diversity](#) [sequence analysis](#)

DOI:

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