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研究报告

森林生态系中球孢白僵菌遗传多样性的ISSR分析

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摘要

应用ISSR分子标记对安徽大别山区的球孢白僵菌遗传多样性进行了研究。从33个引物中筛选出12个多态性高、稳定性好的ISSRs用于正式的扩增分析，在2个自然保护区、3个不同季节和3个不同海拔梯度采集的48个菌株中共扩增出84条带，其中73条为多态性条带，多态性为81%，平均每个引物扩增出7条（2～11）。群体的多态位点百分率（PPL）达81%，Nei’s基因多样性（H）为0.3187，Shannon信息指数（I）为 0.4782。居群间的基因分化系数较小（Gst）0.1028。以上结果表明：安徽大别山区球孢白僵菌有较高的遗传多样性，居群间遗传变异较小，居群内表现出较高水平的遗传分化。

关键词 虫生真菌 分子标记 遗传多态性 遗传分化

分类号 Q933

Genetic Diversity of Beauveria bassiana (Bals.) Vuill. in Forest Ecosystem Assessed by Inter-simple Sequence Repeat (ISSR) Markers

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Abstract

<P> In the present paper, the genetic diversity of 48 Beauveria bassiana strains from different altitudes and at different seasons in Dabie Mountains of western Anhui was estimated using inter-simple sequence repeat (ISSR) markers. Twelve among 33 ISSR primers were chosen for their reproducibility and high polymorphism. Seven (2～11) markers per primer were scored, and a total of 84 fragments were amplified, in which 73 (81%) were polymorphic. Genetic diversity analysis revealed a relatively high level of intraspecific genetic diversity of B. bassiana in Dabie Mountains of western Anhui: the percentage of polymorphic loci (PPL) was 81%, Nei’s genetic diversity (He) was 0.3187 and Shannon’s genetic diversity index (I) was 0.4782. The genetic differentiation, GST was 0.1028, indicating that a low degree of genetic differentiation occurred in the B. bassiana among populations. </P>

Key words entomopathogenic fungi； molecular marker； genetic diversity； genetic differentiation

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