

论著

白纹伊蚊乙酰胆碱酯酶基因片段克隆及鉴定

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摘要

目的 从白纹伊蚊中分离、克隆及鉴定乙酰胆碱酯酶 (ACh E) 基因片段。方法 根据已知的果蝇和斯氏按蚊 ACh E 氨基酸序列保守区域设计简并引物,对白纹伊蚊 ACh E 基因片段进行扩增,将凝胶回收的 PCR 产物经与 T-载体质粒连接进行 T/A 克隆,用 α 互补筛选法筛选重组质粒克隆,用碱裂解法提取重组质粒 DNA 并对重组质粒进行酶切鉴定和 PCR 鉴定。结果与结论 获得与设计相符的白纹伊蚊 ACh E 基因片段 PCR 扩增产物并对其作出鉴定

关键词 [白纹伊蚊](#) [乙酰胆碱酯酶](#) [抗药性](#) [克隆](#)

分类号

Aedes albopictus: Cloning and Identification of the Acetylcholinesterase Gene Fragment from the Mosquito

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Abstract

Objective To isolate, clone and identify the acetylcholinesterase (AChE) fragment from the mosquito, *Aedes albopictus*, in relation to exploring mechanism of insecticide resistance. \ Methods\ The genome DNA extracted from the mosquito was used for degenerate polymerase chain reaction (PCR) and the two pairs of oligonucleotides encoding the highly conserved protein sequences were used as primers. The reaction products were cloned to T-vector and transfected into *E.coli* JM 109. The replicative form DNA of recombinant vector extracted from *E.coli* JM 109 through alkalylisis was identified by the methods of digestion with *EcoR* I and *Sal* I and PCR. \ Results\ The products of degenerate primers polymerase chain reaction were obtained and the identified clone belongs to the AChE fragment of the mosquito. \ Conclusion\ The clone was identified as the AChE fragment of *Aedes albopictus*.

Key words [Aedes albopictus](#) [acetylcholinesterase](#) [insecticide resistance](#) [clone](#).

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