

# 蝎毒液肽基因内含子剪接信号分析

朱顺义、曹志贱、李文鑫  
武汉大学生命科学院生物技术系

从中国蝎*Buthus martensii* Karsch基因组DNA中分离到两个毒液肽基因的内含子。在此基础上,通过编辑和分析目前已出版的蝎毒液肽基因内含子序列,确定了这类基因内含子剪接信号的共有序列,并将其与其它物种进行了比较。本文的结果对于研究蝎毒液肽前体mRNA的剪接机制以及比较不同物种之间内含子进化和功能的关系具有参考价值。

## ANALYSIS OF SPLICING SIGNALS OF SCORPION VENOM PEPTIDE INTRONS

The genomic DNAs encoding two new venom peptides, BmTXKS1 (an short-chain  $K^+$  channel toxin-like peptide) and BmTXKS2(a defensin-like peptide)were isolated and characterized from *Buthus martensii* Karsch. Sequence analysis showed that they are both similar in genomic organization, which is composed of two exons and one intron located in the signal peptide (BmTXKS1) or propeptide(BmTXKS2) coding region. By compiling and analyzing the scorpion venom peptide introns reported so far, the consensus sequences related to intron splice were determined and compared with those of other organisms. These results are valuable to further study the splicing mechanism of scorpion venom peptide introns and for comparing the relationship between evolution and function of introns among different species.

### 关键词

蝎毒液肽(Scorpion venom peptide); 基因组组织(Genomic organization); 剪接信号(Splicing signals); 内含子(Intron)