

研究报告与简报

大麦黄矮病毒GPV株系基因组末端序列的克隆和分析

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摘要:

利用5'RACE、3'RACE和RT-PCR完成了大麦黄矮病毒GPV株系5'和3'末端序列的克隆和分析。分析

结果显示,GPV株系5'末端长302 nt,包含起始密码子ATG和长100 nt的5'UTR。与马铃薯卷叶病毒属其

他病毒比较,5'UTR的长度差异大且不保守。3'末端长328 nt,包含终止密码子TGA和长93 nt的3'UTR

。比RPV 3'UTR短74 nt,同源性为40%,但末端较为保守,与RPV 3'UTR末端序列同源性达84.34%。

关键词: 大麦黄矮病毒GPV株系; 5'RACE; 3'RACE; 5'UTR; 3'UTR

Cloning and Analysis of the Terminal Sequence of Barley Yellow Dwarf Virus GPV

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Abstract:

The authentic 5' and 3' terminal sequences of genome of barley yellow dwarf virus

(BYDV) GPV were obtained by 5' and 3' RACE and RT-PCR techniques. The analysis showed

that 5' terminal sequence in the genome of GPV was 302 nt long, which included the start

codon ATG and 5' un-translated region (UTR) of 100 nt. Compared with other virus of

Polerovirus, the length of 5' UTR was variable and un-conservative. While 3' terminal

sequence in the genome of GPV was 328 nt long, including the terminator codon TGA and 3'

UTR of 93 nt. 3'UTR was 74 nt shorter than that of RPV. The homology of 3'UTR between

GPV and RPV was 40%, but the terminal of 3'UTR was conservative. The homology was 84.34%

between GPV and RPV.

Keywords: barley yellow dwarf virus GPV 5'RACE; 3'RACE; 5'UTR; 3'UTR

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