

植物保护

水稻条纹病毒云南分离物CP基因克隆及序列比较分析

李凡^{1,2}, 杨金广¹, 吴祖建², 林奇英², 陈海如¹, 谢联辉²

1. 云南农业大学植物保护学院, 云南 昆明 650201;

2. 福建农林大学植物病毒研究所, 福建 福州 350002

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摘要 对采自云南保山、楚雄、石林和宜良等4地水稻条纹叶枯病感病稻株, 提取病叶总RNA, 经RT-PCR扩增, 获得4个RSV云南分离物的CP基因片段。序列测定表明, 该片段长999 bp, 其中CP基因由969个核苷酸组成, 编码322个氨基酸。与其它已报道的RSV分离物CP基因进行同源性比较, 发现我国RSV分离物可以划分为2个不同的组, 大部分RSV云南分离物为一组, 其它的RSV分离物为另一组。以RSV-CXi分离物的CP与纤丝病毒属的其它5种病毒的CP进行氨基酸同源性比较, 结果表明RSV与MStV亲缘关系最近, 而与RGSV亲缘关系最远。

关键词 [水稻条纹病毒](#) [外壳蛋白基因](#) [序列比较](#) [纤丝病毒属](#)

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Cloning and Sequence Comparison Analysis of the Coat Protein Gene of *Rice stripe virus* Isolates in Yunnan

LI Fan^{1,2}, YANG Jin-guang¹, WU Zu-jian², LIN Qi-ying², CHEN Hai-ru¹, XIE Lian-hui²

1. College of Plant Protection, Y A U, Kunming 650201, China;

2. Institute of Plant Virology, Fujian Agricultural and Forestry University, Fuzhou 350002, China

Abstract

Rice stripe diseased rice plants were collected from Baoshan, Chuxiong, Shilin and Yiliang of Yunnan province. The cDNAs of coat protein gene of four *Rice stripe virus* (RSV) isolates were obtained by total RNA extraction and RT-PCR. The amplified cDNA fragments were then cloned and sequenced. Sequence analysis results showed that the cDNA fragments were consist of 999 nts, including 969 bp of CP gene encoding 322 amino acids. Comparison of the nucleotide sequences of the CP gene of these 4 isolates with that of other isolates demonstrated that all the RSV Chinese isolates could be divided into two groups. Most of the RSV isolates in Yunnan formed one group, and the other isolates belonged to another group. The amino acid sequence of the coat protein of the RSV-CXi isolate was choosed to compared with those of other five virus in genuses *Tenuivirus*, results indicated that RSV is most closely related to MStV than to RHBV, EHBV, UHBV, and RSV is very distant related to RGSV in the genuses *Tenuivirus*.

Key words [Rice stripe virus](#) [coat protein gene](#) [sequence comparison](#) [Tenuivirus](#)

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通讯作者 李凡

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