

研究报告

应用RNAi技术培育抗TMV病毒转基因烟草

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摘要

利用烟草花叶病毒(TMV)外壳蛋白基因构建RNAi干涉载体, 通过叶盘法转化至烟草K326 和龙江911两个栽培品种。对转基因株系的荧光定量PCR分析表明, 不同转基因株系的病毒RNA靶序列都得到一定程度的降解, 抗病性鉴定结果证实, 转基因K326和龙江911两个栽培品种的转基因材料分别有83%和90%转基因株系对TMV呈现免疫级抗性。

关键词 [RNAi](#) [转基因烟草](#) [TMV](#)

分类号

Expression of TMV coat protein gene RNAi in transgenic tobacco plants confer immunity to tobacco mosaic virus infection

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Abstract

<P> RNAi technique has been proved as a powerful tool for plant breeding. In this paper, the coat protein of tobacco mosaic virus (TMV) was used for constructing the RNAi interference vector. The tobacco varieties K326 and Longjiang 911 were transformed via Agrobacterium tumefaciens-mediated transformation, and transgenic plants were generated. The expression analysis with real-time PCR indicated that TMV RNA had been degraded varied in different transgenic lines. Field assay revealed that 83% and 90 % transgenic plants showed immunity resistance to TMV in K326 and Longjiang 911 re-spectively.</P>

Key words [RNAi](#) [transgenic tobacco](#) [coat protein](#) [TMV](#) [disease resistance](#)

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