遗传　2003 25 (5): 563-566　ISSN: 0379-4172　CN: 11-5450/R

番茄转录调控因子基因Pti5植物表达载体的构建及其转化烟草的研究

Construction of a Plant Expression Vector with Tomato Transcription Factor Gene Pti5 and Studies on Transgenic Tobaccos

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收稿日期　修回日期　网络版发布日期　接受日期

摘要　本实验构建了含有CaMV35S启动子控制下的Pti5-VP16基因的植物双元表达载体pBI121UCH1。通过根癌农杆菌叶盘转化法，将Pti5-VP16基因导入烟草SRI中，经卡那霉素筛选，获得了抗性植株。经PCR和Southern印迹分析，表明抗性植株中整合了Pti5-VP16基因，经抗病性鉴定转基因烟草植株的抗病性明显提高。

Abstract:The plasmid pBI121UCH1 carrying Pti5-VP16 gene under the control of the cauliflower mosaic virus 35s promoter was constructed. Leaf segments of tobacco SRI were infected by Agrobacterium tumefaciens EHA105 with plasmid pBI121UCH1, from which kanamycin resistant plants were obtained. PCR and Southern analysis proved that the Pti5-VP16 gene was integrated into the genomes of the tobacco plants. The disease resistance assay showed that the disease resistance was enhanced in the transgenic tobacco plants.

关键词　Pti5-VP16基因　表达载体　转化　烟草　Key words　Pti5-VP16 gene　expression vector　transgenic tobacco

分类号

Abstract

Key words

DOI:

通讯作者