

专论与综述

外源甜蛋白thaumatin II基因转入烟草的研究

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摘要 利用土壤农杆菌系统, 将高甜度的外源甜蛋白thaumatin II基因转入烟草细胞, 并得到大量转基因植株及其后代。经分子杂交分析确证thaumatin II基因已整合到烟草植株的基因组中, 并在转录水平检测到表达。标记基因胭脂碱合成酶(NOS)基因及新霉素磷酸转移酶(NPT II)基因也在转基因植株中正常表达。

关键词 烟草 转基因植物

Transfer of Sweet-Tasting Protein Thaumatin II Gene into Tobacco Using Ti-Plasmid Vector

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Abstract The gene for intensely Sweet-tasting Protein thaumatin II with 35S promotor of CaMV was transferred into leaf disks of cultivar *Nicotiana tabacum* L. G28 with the help of Ti-plasmid of *Agrobacterium tumefaciens*. These leaf disks were co-cultivated with *A. tumefaciens* harboring a co-integrated vector with a thaumatin II gene, a neomycin phosphotransferase (NPT II) gene and a nopaline synthase (NOS) gene. Many of transgenic plants were regenerated and rooted on medium containing kanamycin. Most of the transgenic plants exhibited both NPT II and NOS enzyme activities. Results of Southern blot and Northern blot showed that thaumatin II gene was stably integrated and transcribed in transgenic plants.

Keywords Thaumatin; Transgenic plant; *Nicotiana tabacum*

扩展功能

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