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作物遗作育种·生物技术

AGPase反义基因转化番茄研究*

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摘要 将含有魔芋AGPase反义基因的质粒pBAGP通过冻融法转化到根癌农杆菌（*Agrobacterium tumefaciens*）菌株LBA4404中，再采用叶盘法将其转化进番茄（*Lycopersicon esculentum* Mill.）栽培品种“合作908”中，获得含AGPase基因的番茄抗性植株。最后，经卡那抗性鉴定、*NPT*Ⅱ基因和AGPase基因PCR扩增和PCR-Southern杂交检测表明，反义AGPase基因成功整合到番茄基因组，为番茄改良品质育种奠定了材料基础。

关键词

腺苷二磷酸葡萄糖焦磷酸化酶；反义载体；遗传转化；番茄

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Study on Genetic Transformation of Tomato Using AGPase Anti-Sense Gene

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Abstract
Carrying an *Amorphophallus* adenosine diphosphate glucose pyrophosphorylase (AGPase) anti-sense gene under the drive of CaMV35S promoter，the plasmid pBAGP was transferred into tomato (*Lycopersicon esculentum* Mill) cultivar “Hezuo908” via agrobacterium-mediated transformation. The results of anti-kanamycin test, PCR amplifications of AGPase gene and *NPT*Ⅱ gene and PCR-southern blotting proved that AGPase anti-sense gene was successfully integrated into genome of tomato, which provided a material basis for improving tomato breed.

Key words Adenosine diphosphate glucose pyrophosphorylase (AGPase)；anti-sense vector；genetic transformation；*Lycopersicon esculentum*

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