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番茄1—氨基环丙烷羧酸(ACC)合成酶基因的反义RNA—核酶嵌合DNA序列的构建 The Construction of Antisense RNA-Ribozyme Chimeric DNA Sequence of Tomato ACC Synthase Gene

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摘要　根据番茄ACC合成酶基因(LE-ACC2)DNA序列，以番茄(Lycopersicon esculentumMill)果实的总DNA为模板，利用PCR技术扩增得到预期大小的该基因编码区内部分DNA序列，插入到质粒载体pGEM-3zf(+)的BamHⅠ和HindⅢ位点之间后转化E. coliDH-5α，可选出重组子pRE，经酶切，PCR及DNA序列分析证明克隆成功；将pRE上的目的DNA序列以反义方式构建到我室已合成并克隆的含核酶DNA序列的重组质粒pRI的BamHⅠ和HindⅢ之间，构成含有反义RNA-核酶嵌合DNA序列的重组质粒pREI，经酶切及序列分析，结果与预期一致。

Abstract　According DNA sequence of Tomato ACC synthase gene(LE-ACC2)。5,Y#〗　Abstract　According DNA sequence of Tomato ACC synthase gene(LE-ACC2), and using total DNA of fruit of tomato (Lycopersicon esculentumMill) as template, the expected partial DNA Sequence in coding region of gene was obtainted by PCR amplification and inserted imto pGEM-3zf(+) digested with BamHⅠ and HindⅢ, then we transformcd the system into DH5-α and selected the postive recombinant (pRE). The digestion of enzyme, PCR amplification and sequence of DNA analysis demonstrated that the cloning was successiful; By the antisense way, the DNA sequence from pRE was combined to pRI between BamHⅠ and HindⅢ to consturct pREI containing antisense RNA-Ribozyme chimeric DNA sequence (pRI was constructed in our Lab and contains Ribozyme DNA sequence). The restriction map of recombinants and sequence analysis were indentical to the expected results.

关键词　番茄　ACC合成酶　反义RNA-核酶嵌合基因 Key words　Tomato　ACC synthase　Antisense RNA-ribozyme chimeric DNA

分类号

Abstract

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