

大肠杆菌的一株抗苯乙醇的外膜突变型ompD

巢麒敏²⁾, 王文华, 盛祖嘉

(复旦遗传学研究所, 上海)

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摘要 通过硫酸二乙酰诱变, 选得一株抗苯乙醇的温度敏感突变型FD2003, 并测定了它的DNA和蛋白质合成, 对氨基酸、碱基、结晶紫和6-氨基青霉素烷酸的通透性变化, 以及对各种抗菌素敏感性的变化。根据这些测定结果, 判断这是一个影响外膜的突变型。突变型对3种外膜蛋白专一性噬菌体都变为不敏感, 而这3种噬菌体的受体蛋白已经知道由两个基因编码。根据这一事实可以认为, 这是一个调节膜蛋白合成或控制膜蛋白装配的基因突变型。从它的位置来看, 这是一个未经报道的基因, 我们称之为mpD

关键词

分类号

A Phenylethyl Alcohol Resistant outer Membrane Mutant in Escherichia coli

Chao Qimin Wang Wenhua Sheng Zujia

(Institute of Genetics, Fudan University, Shanghai)

Abstract

 A PEA-resistant temperature sensitive mutant strain FD2003 was isolated following DES mutagenesis. Its DNA and protein synthesis, its permeability to amino acids,bases, crystal violet and O-APA and its sensitivity to various antibiotics and outer membrane protein—specific phages were determined. Based on THeSe experimental results it was concluded that FD2003 carried a mutation defective in the regulation of synthesis or assembly of outer membrane proteins. By means of Plvir transduction this mutant was mapped at 88 minutes on the E. eoli linkage map. A previously reported outer membrane protein gene, wa. s at 90 minutes. It was therefore suggested that this is a new gene so far unreported, which is named as ompD.

Key words

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扩展功能

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