

大肠杆菌的一株抗苯乙醇的dnaB突变型

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摘要 通过硫酸二乙酯诱变, 选得一株抗苯乙醇的DNA复制突变型FD105。从温度和氨基酸饥饿对DNA残余合成的影响, 以及在限制温度中噬菌体增殖情况可以看到, FD105是DNA复制链延长突变型。我们证实了温度敏感和苯乙醇抗性是同一基因突变的结果。这一基因被定位在dnaB座位。已有的研究表明苯乙醇的作用部位是细胞膜, 链延长dnaB 突变型同时抗苯乙醇, 这是链延长与膜有关的一个旁证。

关键词

分类号

A Phenylethyl Alcohol Resistant Temperature Sensitive dnaB Mutant in Escherichia coli

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Abstract

 A phenylethyl alcohol resistant temperature sensitive DNA replication mutant FD105 was isolated following diethylsulfate mutagenesis. From the observation on the effect of temperature and amino acids starvation on the residual DNA synthesis and the replication of phage X at nonpermissive temperature it was inferred that FD105 is a DNA chain elongation mutant.
 Temperature sensitiveness and PEA-resistance were proved to be the manifestation of the same mutation, which was localized within the gene dnaB. The target of action of PEA is the cell membrane. The fact that the chain elongation mutant dnaB is also a PEA-resistant mutant speaks for the notion that the cell membrane is relevant to DNA chain elongation.

Key words

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