

带有IS1的mini-F质粒所发动的染色体复制对于recA基因的依赖性*

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摘要 我们曾报道整合的F'质粒所发动的大肠杆菌染色体复制依赖于recA基因, 而整合的F质粒则不。构建带有IS1的mini-F质粒, 它们的复制起点分别来自F或F'质粒。这些质粒的整合抑制菌株中都有约20%是recA依赖的, 不管这一mini-F质粒的复制起来来自F或F'质粒, 也不管这一质粒在游离状态中的复制方向是单向或双向。实验结果说明, 质粒的整合位置是决定由整合质粒所发动的染色体复制对recA基因的依赖性的主要因素。

关键词 [mini-F质粒,整合抑制,recA基因IS1](#)

分类号

Dependence of recA Gene for the Replication of Chromosome of Escherichia coli Initiated by the Integrated mini-F Plasmid Carrying IS1 Sequence*

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Abstract

We have reported the dependence of recA gene for the replication of chromosome of E. coli initiated by the F' plasmid but not the F plasmid. mini-F plasmids with IS1 sequence and origin of replication from F and F' plasmid have been constructed. 20% of the integrative suppression strains of these mini-F plasmid have been constructed. 20% of the integrative suppression strains of these mini-F plasmids were found to be recA dependent, irrespective of the origin of replication (F or F' plasmid) and the direction of replication (uni- or bidirectional). The reported experimental results tend to suggest that the site of integration is of primary importance in the dependence vs independence of recA gene for the replication of the chromosome initiated by the integrated plasmid.

Key words [mini-F plasmid](#) [Integrative suppression](#) [IS1](#)

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