遗传学报　1981 8 (3): 196-202　ISSN: 0379-4172　CN: 11-5450/R

枯草杆菌抗利福霉素孢子形成突变体的基因定位和RNA聚合酶活性

金振华 ，尧素芳 ，马志方 ， 周素 ，王玮

（中国科学院遗传研究所，北京）(Institute of Genetics, Academia Sinica, Beijing)

收稿日期　修回日期　网络版发布日期　接受日期

摘要　分离到两株抗利温霉素的孢子形成突变体，其产孢子比率低于千分之五。三点转化杂交表明：抗利福霉和寡孢子性状都是由于染色体上r/m 座位的单一突变引起。亲株和突变株的营养周期RNA聚合酶（Rpase2））在离体条件下能转录φe噬菌体DNA和poly d (A-T).但是，突变体-91的孢子形成期Rpase对φe DNA 的离体转录活性要比亲株的高5倍。而且，营养期和孢子形成期的RNA聚合酶对Mg++、Mn++有不同的反应。

关键词

分类号

Genetic Analysis of Rifampin-resistant Mutant of Sporulation in Bacillus subtilis and Its Activity of RNA Polymerase

Jin Zhenhua Yao Sufang Ma Zhifang Zhou Su Wang Wei

Abstract

Two rifampin-resistant oligosporogenous mutants, －65,－91 were isolated from streptomycin-resistant of Bacillus subtilis ATCC 6633. Their sporulation frequencies were lower than 0.5 per cent. Genetic analysis by three point transformation crosses showed that the rifampin-resistant and oligosporogenous characters were caused by the same mutation i.e.a single mutation of rfm Locus on its chromosome. The results of study by transcription in vitro suggest that vegetative RNA polymerase purified from mutant －91 and respective parental strain respectively, could transcribe either phage φe DNA or poly d(A-T). In addition, the specific activity of sporulating RNA polymerase from mutant －91withφe DNA was five times as higher as that from prenatal strain withφe DNA.

Key words

DOI:

通讯作者