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嗜热脂肪芽抱杆菌抗药性质粒的转化

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摘要　从堆肥和污泥中分得8株抗药性高温细菌，经电泳检查有质粒存在，对其中1株具有卡那霉素和链霉素抗性的嗜热脂肪芽抱杆菌T 617-8的质粒DNA，用电镜测得分子量为26.6 x 10‘道尔顿。T617-8 (KinrSmr)菌株经溴化乙锭处理后，对卡那霉素敏感，同时质粒消失。为此确证，卡那霉素杭性是由质粒所控制。以T617-8的质粒(Km’) DNA，对消除质粒后的菌株（(Sin’)的原生质体进行转化，获得了抗卡那霉素和链霉素的转化子。

关键词
分类号

Transformation of Antibiotic Resistance Conferring Plasmids from Bacillus stearothermophilus

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Abstract

<FONT face=Verdana>Eight antibiotic resistant; strains of thermophilic bacilli isolated from compost and ud were identified for the presence of plasmids by agaro-se-gel electrophoresis. Bacillusstearothermophilus T617一8 was shown to be resistant to kanamyein and streptomycin. leetrophoretic and electron microscopic studies reve；ale‘d the presence of plasmid DNA with molecular weight of 26.6X19’ dal. Up(an treating strain T617一8 with thidium bromide, kanamycin sensistive and .treptomycin resistant clones were obtained：and no plasmid could be detected from tihem. When the protoplast form of the ana.mycin sensitive strain was transformed with plasmid DNA extracted from T617-8 Kmr Smr) strain, transfoirmants resistant both to kanamycin and streptomycin were obtained.The results suggested that kanamycin resistance was conferred by the plasmid.</FONT>

Key words

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