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转座子Tn233(CH）中链霉素和磺胺抗性基因的精确定位

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摘要 重组质粒pTH3和pTB3分别是转座子Tn233 (CH）中含Sm抗性基因和同时含Stn和Su抗性基因的DNA片段克隆到pBR322上得到的。将Tn5转座到p'I'H 3或pTB3上，分离到一些对Sin敏感或仍有抗性的突变株。比较变种及亲本质粒DNA的限制图谱，测出了Tn5的插人位点，并测得pTH3的Stn抗性基因在大肠杆菌极大细胞中指令一个分子量约为32K的多肤合成。据此我们绘制了pTH3中Sm抗性基因的位置与长度。用相似方法也绘制出了Sri抗性基因在pTB3上的位置与长度。利用Tn5的极性效应，推测Tn233(CH）中Su和Stn抗性基因不构成一个操纵子。

关键词

分类号

Fine Mapping of Srn- and Su-resistant Genes on the Transpos.n Tn233(CH）

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Abstract

<FONT face=Verdana>Recombinant plasmids pTH3 and pTB3 were obtained by cloning the DNA fragments which contained streptomycin （Sm) resistant gene or both streptomycin and sulfonamide（Su) resistant genes from Tn233（CH) transposon into plasmid pBR 322.By transposing Tn5 to plasmid pTH3 or pTB3, several mutants, sensitive or still re，sistaut to Sm, have been isolated. The Tn5 insertion site were mapped by comparison of the restriction patterns of mutant plasmid DNAs with their parents plasmid DNA,. It was shown that the Sm-resistant gene carried by pTH3 directed the synthesis of a polypcptide with molecular weight of about 32K in Escher'ichia coli maxicell. Based upon these data, the location and length of Sm-resistant gene on the pTH3 DNA were msp-ped With the similar method, the location and length of Su resistant gene on thOe pTB3 DNA were also mapped. With the polar effect of Tn5, it is supposed that Smand Su- resistant genes do not compose a single opron in the Tn233（CH) transposon DNA.</FONT>

Key words

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