

体内遗传标记成团肠杆菌固氮质粒pEA9 in vivo Labelling of nif-plasmid pEA9 from Enterobacter agglomerans 339

刘成君¹, Walter Klingmüller² LIU Cheng-jun¹, Walter Klingmüller²

1.四川大学生命科学学院, 成都 610064; 2.德国拜罗伊特大学遗传研究所,拜罗伊特, D-95440, 德国 1.College of Life Science,Sichuan University,Chengdu 610064,China; 2.Institute of Genetics,University Bayreuth,Bayreuth D-95440,Germany

收稿日期 修回日期 网络版发布日期 接受日期

摘要 用卡那霉素抗性 (Kanr) 基因对成团肠杆菌固氮质粒pEA9进行活体遗传标记。将来自质粒pEA9的3.0 kb片段 (nif ENX) 克隆到pBR322载体中, 再将卡那霉素抗性 (Kanr) 基因插入到3.0 kb的片段中, 构建成供体质粒pST5。将该质粒转化到含有待标记质粒pEA9的E. a. 339菌株中, 然后在AP培养基中消除供体质粒, 筛选得到40个失去了pST5并保持卡那霉素抗性的克隆, 分析表明它们不是质粒pEA9和pST5的共整合体, 而是卡那霉素抗性基因通过两个质粒在nifENX区域内的DNA间的同源重组整合到了质粒pEA9上。

Abstract:The authors describe the in vivo labelling of the plasmid pEA9 in Enterobacter agglomerans 339 with a kanamycin resistance gene.For labelling purposes the donor plasmid pST5 was constructed.This plasmid contains the nif ENX region from pEA9,in which a kanamycin resistance gene is cloned.pST5 was transformed into E. a. 339 and subsequently cured from the host.Curing was achieved with AP medium.Fourty strains that had lost pST5,but retained the kanamycin resistance, could be isolated.It showed that none of these clones contained co-integrates of pST5 and pEA9.This is evident that in all clones the kanamycin resistance gene was integrated into pEA9 by homologous recombination.

关键词 [成团肠杆菌](#) [遗传标记](#) [卡那霉素抗性](#) [质粒消除](#) [同源重组](#) **Key words** [Enterobacter agglomerans](#) [labelling](#) [kanamycin resistance](#) [curing](#) [homologous recombination](#)

分类号

扩展功能

本文信息

- ▶ [Supporting info](#)
- ▶ [PDF\(0KB\)](#)
- ▶ [\[HTML全文\]\(0KB\)](#)
- ▶ [参考文献](#)

服务与反馈

- ▶ [把本文推荐给朋友](#)
- ▶ [加入我的书架](#)
- ▶ [加入引用管理器](#)

- ▶ [复制索引](#)
- ▶ [Email Alert](#)
- ▶ [文章反馈](#)

[浏览反馈信息](#)

相关信息

- ▶ [本刊中 包含“成团肠杆菌” 的相关文章](#)
- ▶ [本文作者相关文章](#)

- [刘成君](#)
- [Walter KlingmüllerLIU Cheng-jun](#)
- [Walter Klingmüller](#)

Abstract

Key words

DOI:

通讯作者