



青海柯柯盐湖16株细菌的ARDRA筛选及系统发育初步分析

柴丽红^{1,2}, 王涛¹, 崔晓龙¹, 彭谦¹, 徐丽华¹, 姜成林¹

1. 云南大学, 云南省微生物研究所, 教育部微生物资源开放重点实验室, 云南, 昆明, 650091;
2. 长安大学环境工程学院, 陕西, 西安, 710064

A primary study of 16 strains in Keke Salt Lake by ARDRA and phylogenetic analysis

CHAI Li-hong^{1,2}, WANG Tao¹, CUI Xiao-long¹, PENG Qian¹, XU Li-hua¹, JIANG Cheng-lin¹

1. Yunnan Institute of Microbiology, Yunnan University, The Key Laboratory for Microbial Resource of Ministry of Education P. R. China, Kunming 650091, China;
2. School of Environmental Engineering Chang'an University, Xi'an 710064, China

- 摘要
- 参考文献
- 相关文章

全文: PDF (655 KB) HTML (KB) 输出: BibTeX | EndNote (RIS) 背景资料

摘要 从青海柯柯盐湖泥样中分离的16株细菌,用2种限制性内切酶酶切进行ARDRA分析,其中12株菌的酶切带谱有较大差异.根据这12株菌的16SrDNA序列进行系统发育分析结果表明,12株菌有11株分布于芽孢杆菌科中的 *Halobacillus*, *Gracibacillus*, *Amphibacillus*, *Virgibacillus*, *Bacillus*, *Salibacillus*和1个潜在的新属中,另1株属于Proteobacteria的Gamma亚群Halomonadaceae科, *Halomonas*属.而且16SrDNA系统发育分析提示这些菌株中存在3个新种和1个新属的可能.本研究得出的结论为:应用ARDRA来初步筛选菌株是可行的;青海柯柯盐湖这一极端环境中存在较丰富的新的芽孢菌种类.

关键词: 柯柯盐湖 ARDRA 系统发育分析

Abstract: Sixteen bacteria strains were isolated from Keke Salt Lake, Qinghai, China. Their amplification of 16S rDNA and sequencing were performed. The 16S rDNA PCR products of the tested strains were digested by two restriction enzymes (*Afa* I and *Hae*III) and the results showed that 12 strains of them displayed great diversity with their restriction patterns. Phylogenetic analysis revealed that most of these strains belong to six genera of the family Bacillaceae: *Halobacillus*, *Gracilibacillus*, *Amphibacillus*, *Virgibacillus*, *Bacillus* and *Salibacillus*. In addition, from the phylogenetic analysis KN4 may be a new genus and KN2, KN3 and KN16 are probably three new species. The results showed that there are probably many new microorganisms in the extreme environments and Keke Salt Lake harbours a diverse of microbials.

Key words: Keke Salt Lake ARDRA phylogenetic analysis

收稿日期: 2002-12-09;

基金资助: 科技部基础研究重大项目前期研究专项资助(2001CCC00600)

引用本文:

柴丽红, 王涛, 崔晓龙等. 青海柯柯盐湖16株细菌的ARDRA筛选及系统发育初步分析[J]. 云南大学学报(自然科学版), 2003, 25(6): 541-544.

CHAI Li-hong, WANG Tao, CUI Xiao-long et al. A primary study of 16 strains in Keke Salt Lake by ARDRA and phylogenetic analysis[J]. , 2003, 25(6): 541-544.

没有本文参考文献

没有找到本文相关文章

服务

- ▶ 把本文推荐给朋友
- ▶ 加入我的书架
- ▶ 加入引用管理器
- ▶ E-mail Alert
- ▶ RSS

作者相关文章

- ▶ 柴丽红
- ▶ 王涛
- ▶ 崔晓龙
- ▶ 彭谦
- ▶ 徐丽华
- ▶ 姜成林

版权所有 © 《云南大学学报(自然科学版)》编辑部

编辑出版：云南大学学报编辑部（昆明市翠湖北路2号，650091）

电话：0871-5033829(传真) 5031498 5031662 E-mail: yndxxb@ynu.edu.cn yndxxb@163.com