



雷蒙德氏棉3条染色体特异BAC的筛选与定位

覃 琴¹, 刘 方¹, 甘仪梅², 王春英¹, 王玉红¹, 蔡小彦¹, 王坤波^{1*}

1. 中国农业科学院棉花研究所/棉花生物学国家重点实验室, 河南 安阳 455000; 2. 中国热带农业科学院热带生物技术研究所/农业部热带农业生物技术重点实验室, 海南 海口 571101

Screening and Positioning of Three Chromosome-specific BAC Clones in *Gossypium raimondii*

QIN Qin¹, LIU Fang¹, GAN Yi-mei², WANG Chun-ying¹, WANG Yu-hong¹, CAI Xiao-yan¹, WANG kun-bo^{1*}*

1. *Institute of Cotton Research Chinese Academy of Agricultural Sciences / State Key Laboratory of Cotton Biology, A Tropical Bioscience and Biotechnology of Chinese Academy of Agricultural Sciences / Key Laboratory of Biology Ministry of Agriculture(China), Haikou, Hainan, 571101, China*

摘要

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摘要 通过筛选海岛棉BAC文库并结合BAC-FISH技术成功获得雷蒙德氏棉D₅01、D₅02和D₅10染色体的特异BAC克隆,可作为这3个染色体的细胞学标记。这3个克隆在雷蒙德氏棉和海岛棉中进行比较作图,结果表明,它们在海岛棉中均表现出了染色体特异性,说明这3个克隆可用于海岛棉D_b01、D_b02和D_b10染色体的识别。其中BAC克隆280G06在两棉种10号染色体上的位置为非线性关系,可能在棉属中发生了染色体结构的变异。

关键词: 雷蒙德氏棉 单染色体 细菌人工染色体 荧光原位杂交

Abstract: We screened a bacterial artificial chromosome(BAC) library of *Gossypium barbadense* acc. Pima 90-5 to identify chromosome-specific BAC clones. Using BAC-fluorescence in situ hybridization technology, we obtained BAC clones specific to chromosome D₅01, D₅02, and D₅10 of *Gossypium raimondii*, which could be used as cytological markers for those three chromosomes. Comparative mapping of these three BACs between *G. barbadense* and *raimondii* showed that these three BAC clones could also be used to identify chromosomes D_b01, D_b02, and D_b10 of *barbadense*. The position of the BAC clone 280G06 on chromosome 10 did not show colinearity between *G. barbadense* and *G. raimondii*, possibly because of chromosomal rearrangement.

Keywords: *G. raimondii* individual chromosome bacterial artificial chromosome(BAC) Fluorescence *in situ* hybridization (FISH)

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Corresponding Authors: wkbcri@163.com

About author: 覃 琴(1986-), 女, 硕士研究生, qinqin36@163.com