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应用寡核苷酸芯片分析水稻花序相关基因在花序发育中的表达谱 Gene Expression in Rice Inflorescence Development was Monitoredby Using Oligonucleotide Microarray

李援亚1,张云孙2,杜娟3,高志勇1,张永彪1,王璐1 LI Yuan-Ya1,ZHANG Yun-Sun2 ,DU Juan3,GAO Zhi-Yong1,ZHANG Yong-Biao1,WANG Lu1

1.云南大学生命科学学院生物技术系，昆明650091； 2.云南大学科学技术处，昆明 650091； 3.云南省农业科学院粳稻育种中心，昆明 650205 1.Department of Biology,School of Life Sciences,Yunnan University,Kunming 650091,China; 2.Department of Science and Technology,Yunnan University,Kunming 650091,China; 3.Rice Research Center of Yunnan Academy of Agricultural Sciences,Kunming 650205,China

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摘要 从Internet、国内外文献中查询了50个水稻花序的相关基因，制备成水稻花序相关基因的寡核苷酸芯片。对3个不同生长阶段的水稻花序材料进行了表达谱检测，用ScanArray3000对杂交结果进行扫描，得到了不同的基因表达谱。用ImaGene 4.0软件对获得的表达谱进行分析，获得基因表达差异的散点图及饼图。 图像分析表明，候选基因在水稻花序3个不同发育阶段的材料中，表达水平有显著差异。这些结果将有助于研究水稻花序的发育机理。

Abstract:In this paper we chose 50 rice inflorescence genes from Internet,references.Rice oligonucleotide microarray was prepared by printing the target rice inflorescence genes oligonucleotide.Expression patterns of 50 genes from rice inflorescence in three different development phase were obtained by scanning using ScanArray3000 after array hybridization.The scatter plots and scale maps of the images were acquired after the acquired gene expression patterns were analyzed by ImaGene4.0 software.The scatter plots and scale maps show that there existed a significant difference in the expression of these candidate genes in rice inflorescences with different development phase.Further analysis of those candidate gene expression patterns will be helpful to understand the developmental mechanism of rice inflorescence.

关键词 寡核苷酸芯片 水稻花序相关基因 基因差异表达 Key words oligonucleotide arrays rice inflorescence genes differential expression

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Abstract

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