

# 利用mRNA差别显示技术分析枸杞体细胞胚发生早期基因的差别表达 Differential Expression of the Gene in Early Somatic Embryogenesis of Lycium barbarum L. by modified mRNA Differential Display

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**摘要** 本研究选用枸杞体细胞胚发生体系中的继代愈伤组织(对照)、胚性愈伤组织和早期胚体为实验材料, 提取细胞总RNA, 在12种锚定真核生物mRNA 3'末端的OligodT12VN中, 随机选用OligodT12GA为引物合成了以上三种材料的cDNA第一链, 以此cDNA为模板, 用随机引物进行PCR扩增, 选择差别表达的片段。我们选用了OPA、OPH、OPK和OPB四组的60个随机引物对所得的cDNA进行了PCR扩增, 得到了三个在体细胞胚发生早期组织中基因特异表达的片段。结果表明, 在体细胞胚发生早期有胚胎发生特异性基因的表达, 而且这种特异表达的基因在继代愈伤组织中没有表达, 说明植物的体细胞胚发生过程就是细胞内基因差别表达的结果。

**Abstract:** Embryogenic calli and early embryo can be obtained from both auxin and auxin-free medium. The analysis of differential gene expression in early somatic embryogenesis has been hindered by above-mentioned material. The modifications of the recently described mRNA differential display method were reported and differential gene expression in early somatic embryogenesis was analyzed. We have obtained three differential bands of cDNA in early somatic embryogenesis. The results indicate that gene expression has temporal and spatial order in early somatic embryogenesis of Lycium barbarum L. Plant somatic embryogenesis is the results of differential gene expression in cell.

**关键词** mRNA 基因差别表达 PCR 体细胞胚发生 枸杞 **Key words** mRNA differential gene expression PCR somatic embryogenesis Lycium barbarum L.

分类号

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## Abstract

## Key words

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