

大豆体细胞胚胎发生与农杆菌介导的遗传转化 Studies of Somatic Embryogenesis and Genetic Transformation by Agrobacterium-mediated in Soybean

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摘要

以55个大豆基因型未成熟子叶为外植体, 用高浓度2, 4-D诱导大豆体细胞胚胎发生与植株再生, 并对生产上种植面积大、体细胞胚胎发生率高的大豆基因型用农杆菌介导法进行遗传转化。结果表明, 东北地区主栽的大豆基因型中有14个基因型体细胞胚胎发生率超过40%。用含有pGBI121S4ABC质粒的LBA4404农杆菌侵染5个东北地区主栽大豆基因型的2147个未成熟子叶, 经卡那霉素抗性筛选得到12株PCR阳性植株。

Abstract: Somatic embryogenesis was induced and the regenerated plants were obtained by higher concentrations of auxins with immature cotyledon of 55 genotypes in soybean. Bivalent insect resistant genes were transformed into immature cotyledon of soybean which have high frequency of somatic embryogenesis via Agrobacterium-mediated. The results showed that 14 genotypes possessed high frequency of somatic embryogenesis (more than 40%) among soybean genotypes from Northeast area. 2147 immature cotyledons of 5 different soybean genotypes cultured in Northeast area were inoculated with LBA4404 (including pGBI121S4ABC plasmid). 12 regenerated plants selected by Kanamycin gave positive PCR reaction.

关键词 [大豆](#) [体细胞胚胎发生](#) [农杆菌](#) [遗传转化](#) Key words [Soybean \(Glycine max L.\)](#) [somatic embryogenesis](#) [Agrobacterium](#) [genetic transformation](#)

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Abstract

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