

籼稻基因枪转化的研究

郑宏红, 戴顺洪, 何锬洁, 田文忠, 李良材

中国科学院遗传研究所; 北京 100101

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摘要 对国内外17个籼稻品种进行了基因枪转化,研究了有利于籼稻愈伤组织诱导和生长的培养条件和筛选程序,15个品种获得了潮霉素抗性愈伤组织,5个品种再生了植株,包括当前国际上推广的IR系统及国内的优良品种和恢复系,分子生物学证据证明潮霉素基因已经整合入籼稻的基因组。最高植株转化频率接近一般粳稻水平,多数低于粳稻水平。这为建立籼稻的转化系统打下了基础。

关键词 [水稻](#) [籼稻](#) [基因枪转化](#)

分类号

Genetic Transformation of Indica Rice Using the Biolistic Method

Zheng Honghong Dai Shenhong He Sijie Tian Wenzhong Li Liangcai

Institute of Genetics Academia Sinica Beijing 100101

Abstract

Seventeen commercially important indica rice varieties and lines were tested for their response to biolistic transformation, the suitable culture conditions for callus induction and growth and the optimal selection scheme were investigated. After bombardment and selection, resistant calli were obtained with 15 varieties. Hygromycin resistant plantlets were regenerated in five of them, including IRR1 and domestic varieties. The highest frequency of transformed plant production approximated to the general status in japonica rice. Data from molecular analysis proved that the HPT gene had been integrated into plant genome. This experiment provides as basis for further investigations of transformation system of indica rice.

Key words [Particle bombardment](#) [Indica rice](#) [Transgenic](#) [Immature embryos](#)

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