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PCR一步法构建融合蛋白基因fpgConstruction of a Fused fpg Gene by Using TP-PCR Method

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摘要

采用一种不需要限制核酸酶和连接酶的新方法——“PCR一步法”将芳香烃化合物降解的关键基因pheB和绿色荧光蛋白编码基因gfp融合，构建得到融合蛋白基因fpg。该方法在一个PCR反应体系中通过三个引物、两个模板扩增得到一个含有中间柔性肽段-Gly4Ser-的融合基因fpg。本文研究结果表明，PCR一步法是一种快速方便的构建融合基因的方法。Abstract: TP-PCR, a method developed for fusion gene construction without the use of endonuclease and ligase, was performed to construct a fused fpg gene. The TP-PCR reaction system contained three primers and two templates and resulting PCR product, fused fpg gene, consisted of three sections: pheB gene, which was responsible for catechol 2,3-dioxygenase, gfp gene for GFP protein and the intermediate ligation segment which was designed for the correct expression of the fusion gene. The result in this paper showed that the TP-PCR method is one of rapid and convenient methods for fused gene construction.

关键词 PCR一步法 邻苯二酚双加氧酶 绿色荧光蛋白 融合基因 Key words TP-PCR Catechol 2 3-dioxygenase green fluorescent protein fusion gene

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