

转基因红花中角质细胞生长因子KGF-1的表达

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Expression of Keratinocyte Growth Factor-1 (KGF-1) in Transgenic Safflower

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摘要

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摘要 通过构建重组表达质粒载体p139035S-KGF1和根癌农杆菌介导在红花(*Carthamus tinctorius*)中表达角质细胞生长因子(KGF-1)。从侵染到诱导生根共需要14周, 转化率达0.1%。红花子叶在潮霉素筛选培养基上培养4-5周后便可获得丛生芽, 再生芽移入含潮霉素的伸长生根培养基, 培养4-8周可诱导生根。通过PCR、Southern blot、RT-PCR及Western blot检测证明目的基因KGF-1已经整合到红花细胞的染色体中, 实现了KGF-1外源蛋白在红花中的成功表达, 为开发KGF-1蛋白新的生产途径奠定了基础。

关键词: 根癌农杆菌 角质细胞生长因子 转基因红花

Abstract: The recombinant plasmid vector p139035S-KGF1 was constructed and transfected into safflower by *Agrobacterium tumefaciens* transfection. The period of infection to rooting was 14 weeks, and transformation efficiency was about 0.1%. Adventitious shoots were generated after cotyledons were cultured in selecting media containing hygromycin for 4-5 weeks. Rooted safflower was obtained in 4-8 weeks. KGF-1 was transformed into safflower chromosomes and expressed successfully, as determined by PCR, Southern blot, RT-PCR and Western blot analysis, which established the basis for the production of KGF-1.

Keywords: *Agrobacterium tumefaciens* keratinocyte growth factor-1 (KGF-1) transgenic safflower

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