

研究报告

丹参丛生芽诱导和植株的高频再生(英文)

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摘要:

对丹参直接芽再生系统进行研究,探讨不同基因型、外植体类型(幼茎,下胚轴和叶)和BA、IBA及蔗糖的浓度对其不定芽诱导、伸长和生根的影响。结果表明,来自丹参99-5幼苗的叶外植体芽诱导率最大。诱导芽再生的最佳培养基为MS+0.1mg·L⁻¹BA,在该培养基上培养30 d的外植体可获得最多的不定芽。将再生芽转移到MS+0.1mg·L⁻¹IBA培养基上进行伸长培养,当芽长至3.5 cm时,将其转移至1/2 MS+1.0mg·L⁻¹IBA+10%蔗糖的培养基中诱导生根。

关键词: 丹参 不定芽 叶外植体 再生

Buds Induction and High-frequency Plant Regeneration of *Salvia miltiorrhiza* Bunge

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Abstract:

A direct induction of adventitious buds and in vitro plantlet regeneration system for *Salvia miltiorrhiza* Bunge was optimized by studying the influences of genotype, explants type (young stem, petiole and leaf) and different concentration of BA, IBA and sucrose. Leaf explants from 99-5 seedlings showed maximum buds induction. The plant growth regulator BA (0.1 mg·L⁻¹) was effective in stimulating shoot regeneration from leaf explants of *S. miltiorrhiza*. The highest efficiency of bud formation was observed with a 30-day culture in MS containing 1.0 mg·L⁻¹ BA. The regenerated buds were transferred to MS medium containing 0.1 mg·L⁻¹ BA for elongation. When the shoots were about 3.5 cm in height, they were transferred to 1/2-strength MS medium supplemented with 1.0 mg·L⁻¹ IBA and 10% sucrose to induce rooting.

Keywords: *Salvia miltiorrhiza* Bunge adventitious bud leaf explant regeneration

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