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萝卜带柄子叶高频再生体系的建立

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Establishment of High-frequency Regeneration System from Cotyledons with Petiole in Radish

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摘要 以11份萝卜(*Raphanus sativus*)基因型为材料进行子叶离体培养研究, 筛选出具有较高再生率的基因型进行实验, 考察基因型、外植体类型、激素配比和苗龄等因素对萝卜再生的影响。结果表明: 萝卜离体再生的最佳外植体为全子叶-叶柄, 最适苗龄为4天, 最适培养基为MS+6 mg·L^{-1}6-BA+0.05 mg·L^{-1}NAA, 再生率高达86.95%, 再生系数为1.80。该研究为进行萝卜遗传转化实验奠定了良好基础。

关键词: 离体再生 萝卜 6-BA TDZ

Abstract: We studied *in vitro* culture regeneration from cotyledons of 11 genotypes of radish. Those genotypes, which have a high rate of regeneration, were used as the test materials for subsequent experiments of explant type, hormone ratio, and seedling age. The regenerated plantlets, which generated roots well, were transplanted into the field. The entire cotyledon with a petiole is the optimal regeneration explant. Four days of seedling age is suitable to induce adventitious shoots. The maximum frequency of shoot regeneration was 86.95% obtained from cotyledons of Z3 in the medium Murishige and Skoog + 6 mg·L^{-1} 6-BA + 0.05 mg·L^{-1} NAA, and the regeneration coefficient reached 1.80. These results set the basis for radish genetic transformation.

Keywords: *in vitro* regeneration radish 6-BA TDZ

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