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摘要: Phytosulfokine- α (PSK- α), a biologically active peptide acting as a growth factor, plays a key role in cellular differentiation and proliferation. To test if PSK- α has some influence on agrobacterium-mediated transformation in rice, PSK- α at a series of concentrations was added into co-culture medium respectively. The results showed that PSK- α indeed affected the recovery of resistant calli and the transformation frequency of rice varieties Taipei 309 and Lijiangxintuanheigu. PSK- α at the concentration of 10 nmol/L could increase induction of resistant callus and efficiency of transformation, with a 11% and 4.9% top increase, respectively than the control. However, PSK- α at 200 nmol/L could inhibit the induction of the resistant calli. Further more, the effect of PSK- α on agrobacterium-mediated transformation is related with the concentration of 2, 4-D in selection medium. Higher induction rate of resistant calli was obtained from tissues treated with PSK- α plus 2 mg/L 2, 4-D.

关键词: phytosulfokine; rice; Agrobacterium-mediated transformation

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