

タンシノン類の*Salvia miltiorrhiza*不定根と 培養生株における産生

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TANSHINONE PRODUCTION IN ADVENTITIOUS ROOTS AND REGENERATES OF *SALVIA MILTIORRHIZA*

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ABSTRACT The adventitious root culture of *Salvia miltiorrhiza* has been established on Gamborg B5 solid medium containing various combinations of phytohormones. The production of the four major tanshinones in the root cultures under different culture conditions was simultaneously determined by hplc. The roots grew rapidly when indole-3-acetic acid or 1-naphthaleneacetic acid in combination with or without benzyladenine was added to Gamborg B5 liquid or solid media. On the other hand, the highest production of tanshinones was obtained with the addition of indole-3-butyric acid to the medium. In Gamborg B5 liquid medium, over 80 mg/g dry wt of tanshinones (sixfold the amount produced in the roots of parent plant) were obtained from the root cultures. In addition, a method for rapid propagation of *S. miltiorrhiza* has been established. Plantlets micropropagated on Murashige and Skoog solid medium could be transferred to the field. The roots of the 6-month-old regenerates produced more tanshinones than the commercially available roots, which are usually from 3-4-year-old plants.

抄録 *Salvia miltiorrhiza* 不定根培養を各種植物ホルモン含有のGamborg B5培地で行った。主として4つのタンシノン類の産生がHPLCで同時に定量された。不定根はIAAやNAA添加の固形又は液体培地で速く、且つIBA添加区でタンシノン類の最高の生産が認められた。一方、*S. miltiorrhiza*の培養生株を圃場へ移し、その6ヶ月後の根（丹参）のタンシノン類の生産量は、市販の丹参のそれよりも多かつた。

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