

## 抗菌性プテロカルパン誘導体

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### Antifungal Pterocarpan Derivatives

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**Abstract** *l*-Maackiain inhibits the growth of *Pythium graminicola* and *P. vanterpooli* at lower doses when tested by incorporation into the culture media than when determined by the usual MIC method. To solve this problem, the stability of *l*-maackiain was examined in the incubation mixture and in acid solution at elevated temperatures. In the acid hydrolysate, 2',7-dihydroxy-4',5'-methylenedioxyisoflav-3-ene (compound 1) and 2-(2',4'-dihydroxyphenyl)-3-methyl-5,6-methylenedioxybenzofuran (compound 2) were identified. Neither of compounds 1 and 2 was found among the metabolites of *P. graminicola* and *P. vanterpooli*, but compound 1 was identified in the sterilized cultures. Compounds 1 and 2 inhibited the growth of *P. graminicola* at concentrations of 20 and 10  $\mu\text{g/ml}$ , respectively, whereas *l*-maackiain itself inhibited the growth at a concentration of 50  $\mu\text{g/ml}$ . Compounds 1, 2 and *l*-maackiain inhibited the growth of *P. vanterpooli* at a concentration of 20  $\mu\text{g/ml}$ . These findings indicated that the possible participation of compound 1, produced in the sterilization process, in the inhibition of growth of *P. graminicola* by *l*-maackiain.

プテロカルパン誘導体を *l*-マーカーキアインより部分合成し、それら化合物について植物病原菌に対する抗菌活性を検討した。