

Phytochemistry, 1974, Vol. 13, p. 655. Pergamon Press. Printed in England.

A NEW ACYLPHLOROGLUCINOL OF *DRYOPTERIS GYMNASORA*

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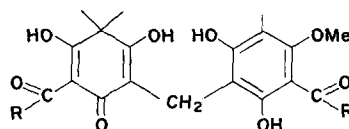
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(Received 30 August 1973. Accepted 20 September 1973)

Key Word Index—*Dryopteris gymnosora*; Aspidiaceae; Filicinae; fern; acylphloroglucinols; aspidin *BB* and *AA*.

Plant. *Dryopteris gymnosora* (Mak.) C. Chr. **Source.** Mie Prefecture, Japan. **Previous work.** The presence of aspidin and albaspidin were detected by paper electrophoresis.¹

Present work. Dried rhizomes were percolated with Et₂O, and extract was evaporated. The crude filicin obtained by MgO method was chromatographed on silica. The elution with cyclohexane-CHCl₃ (8:1) afforded aspidin *BB* (1), and then cyclohexane-CHCl₃ (5:1) gave a new constituent, aspidin *AA* (2).



Aspidin *BB* (1) R = Pr

Aspidin *AA* (2) R = Me

Aspidin *BB* (1). C₂₅H₃₂O₈. m.p. 116–118°. IR, TLC, UV, NMR, MS and m.m.p. with authentic sample. Aspidin *AA* (2). C₂₁H₂₄O₈. m.p. 135–136° (yellow needles from *n*-hexane). IR: ν_{\max}^{KBr} cm⁻¹ 3160, 2930, 1640, 1605, 1467, 1414, 1366, 1325, 1315, 1290, 1262, 1203, 1110. UV: $\lambda_{\max}^{\text{EtOH}}$ nm (log ϵ) 228 (4.50), 293 (4.29). UV: $\lambda_{\max}^{\text{EtOH} + \text{NaOH}}$ nm (log ϵ) 241 sh (4.37), 315 (4.25). *R_f* 0.80 on TLC in CHCl₃-MeOH-H₂O (7:3:1, lower) spot color gave yellow with diazotized benzidine and brown with FeCl₃. NMR (in CDCl₃, i.s. tetramethylsilane, showed ppm): 1.38, 1.50 (6H, each *s* gem-dimethyl), 2.13 (3H, *s* aromatic Me), 2.71, 2.75 (6H, each *s* 2 × COMe), 3.58 (2H, *s* >C-CH₂-C<), 3.75 (3H, *s* -OMe), 9.98 (1H, *s*), 11.48 (1H, *s*), 15.70 (1H, *s*), 18.48 (1H, *s*) all due to hydrogen bonded OH-groups. The MS shows the parent peak at *m/e* 404. Other important peaks at *m/e* 209, 208, 197, 196, 193, 181.

Acknowledgements—The authors thank the Analytical Center of Tokyo College of Pharmacy for measurement of NMR and MS. We are also indebted to Analytical Center of our university for elemental analyses.

¹ HISADA, S. and NORO, Y. (1961) *Yakugaku Zasshi* **81**, 1270.