

Title An Oxidized Ergosterol from *Pleurotus cystidiosus* Active Against Anthracnose Causing *Colletotrichum gloeosporioides*

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Citation Mycopathologia, 167, Number 3, 155-162, 2009

Keywords Anthracnose; Antifungal activity; Ergosterol; Fungi; Mushroom

Abstract

This study was undertaken to study the antifungal activity of *Pleurotus cystidiosus* against *Colletotrichum gloeosporioides*. This was achieved by fractionating the mushroom, *P. cystidiosus* initially to acetone (A), dichloromethane (D), and hexane (H) and studying the antifungal activity using the standard poisoned food technique. All the test solutions used were in the concentration of 20,000 ppm. The percentage inhibition of extracts A, D, and H was 12, 7, and 0.4%, respectively. Antifungal assay guided fractionation of the most active extract A resulted in four fractions; A1, A2, A3, and A4 having 12, 22, 0, and 17% percentage inhibitions, respectively. Fractions A2 and A4 were selected for further purifications. Normal phase column chromatography of A2 gave A2-1, A2-2, A2-3, and A2-4, with percentage inhibitions 7, 5, 26, and 13%, respectively. The fraction with the highest inhibitory activity (A2-3) was further separated using the Chromatotron and a single compound (A2-3-13) with 41% inhibition was isolated. Structure elucidation of this compound using 1D and 2D NMR spectroscopy proved this compound to be 3 β , 5 α , 6 β -trihydroxyergosta-7,22-diene.

<http://www.springerlink.com/content/w7102n5474v7k13g/fulltext.pdf>