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Antimicrobial and antioxidant activities of secondary metabolites of endophytic fungi isolated from origanum onites

Gokalp Iscan¹, Ceyda Serin Akin², Yavuz Bulent Kose³, Fatih Goger¹, Ayhan Altintas¹ ¹Anadolu University, Faculty of Pharmacy, Turkey ²Eskisehir Technical University, Turkey ³Anadolu University, Turkey

Entophytic fungi live as a symbiotic organisms in higher plants tissues and may improve the host resistance to biotic and Eabiotic stresses. Endophytes have a very rich biodiversity and they can synthesize so many bioactive secondary metabolites. These natural compounds are challenging potential resources for the pharmaceutical industry. In the present study three endophytic fungi were isolated and subcultured from the leaves of *Origanum onites* (oregano) and identified by molecular methods. The fungi (*Alternaria brassicicola, A. alternata* and *A. tenuissima*) were cultured in liquid media for 14 days and extracted. Crude extracts were analysed with Liquid chromatography/mass spectrometry (LC/MS) system. Furthermore, extracts were evaluated for their antimicrobial and antioxidant effects. Alternaria brassicicola and *A. alternata* extracts showed significant growth inhibition against selected pathogenes between the concentration range of 7 to 125 µg/mL.

Biography

Gokalp Iscan is a pharmacognosist at Anadolu University, Turkey. He is associate professor in Department of Pharmacognosy, Faculty of Pharmacy. Dr Iscan has been in his current position as lecturer and researcher since December 1999. He has his expertise in microbial transformations of aroma chemicals, bioactive metabolites, essential oils, natural products and bioactivity assays. He has published more than 35 research papers in refereed International journals. Dr Iscan worked in fifteen national and international research projects.

giscan@anadolu.edu.tr

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