

Bioactive Compounds from a Polypore Fungus *Ganoderma applanatum* (Per s. ex Wallr.) Pat

Abstract

Bioactive chemical compounds G1 and G2 were isolated, purified and identified from fruit bodies of the wood-rot polypore fungus *Ganoderma applanatum* collected from *Tamarix aphylla* trees in southern Iraq. The identification of these two compounds by using GC-Mass and ¹H NMR was confirmed. Solubility of both compounds in different solvents was tested and the toxicity of these two compounds against human blood showed a negative result. The molecular weights of the purified G1 and G2 compounds are 336 kD and 360 kD, respectively. The chemical formula of G1 is C₂₀H₃₄O₄ which belongs to Tanin group while G2 is C₂₁H₂₈O₂ and belongs to terpenoides group. The antimicrobial bioactivities of the purified compounds against bacterial strains *E. coli* and *S.*

aureus and against selected dermatophytic fungal isolates were tested using

a disc diffusion agar method. The minimal inhibitory concentration (MIC) was also applied. Purified G1 and G2 compounds exhibited good bioactivities against the tested bacteria but did not show any activity against the selected dermatophytes
