

Characterization of Triterpenoids Antimicrobial Potential in Ethyl Acetate Extracts from Aerial Parts of *Deinbollia Pinnata*

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Abstract : Triterpenoids are a diverse class of secondary metabolites with potential antimicrobial properties. In this study, the crude extracts from ethyl acetate was obtained with ultrasonic extraction method. Using a combined chromatographic separation method to isolate squalene (1) stigmasterol (2), stigmasta-5,22-diene-3-ol acetate (3), γ -sitosterol (4), lupeol (5), taraxasterol (6), and betulinic acid (7) from ethyl acetate extracts. Ethyl acetate crude extracts and isolated compounds were both screened for antimicrobial activity and minimum inhibitory concentration (MIC). For ethyl acetate crude extracts with concentrations of (1.5, 0.75, 0.35, & 0.168 mg/mL) indicated marginal antibacterial activity with a range of 17, 20 and 14 mm zone of inhibition for *Staphylococcus aureus*, *Escherichia coli* and *Candida albicans* and lower minimum inhibitory concentrations ranges from 18.75 μ g/ml to 150 μ g/mL. Butulinic acid showed the highest activity against *E. coli* and *C. albicans* at 15 mm and 15 mm followed by Lupeol against *S. aureus*, *E. coli* and *C. albicans* at 13, 12, 12 mm. Moreso, no antimicrobial activity for both *S. aureus* and *C. albicans* with squalene except for *E. coli* which showed activity at 11 mm with 300 μ g/mL (MIC). Thus, abundant triterpenoids in *Deinbollia pinnata* will be another centered area for antimicrobial drug discovery.

Keywords : triterpenoid, antimicrobial potentials, *deinbollia pinnata*, aerial parts

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