

Flavone-5-O-Glycosides from *Cheilanthes dalhousiae* (Hook)

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Abstract :

Abstract: Fern fronds (about 500gm) of *Cheilanthes dalhousiae* Hook. Vouch. Sp. No. 21 was collected from Pindari glacier routes (2200-2800m above sea level) of Almora district of Uttarakhand state. It was extracted with acetone-water (1:1, V/V) and extract was concentrated under reduced pressure until H₂O layer (up to 50ml) remained. The H₂O layer was partitioned with CH₂Cl₂, EtOAc and BuOH successively. The CH₂Cl₂ fraction gave antibacterial tests against *Bacillus subtilis*, *Pseudomonas aeruginosa*, *Staphylococcus epidermidis* and *Escherichia coli* by the standard method of disc-diffusion using DMSO-d₆ solution of CH₂Cl₂ residue impregnated on Whatman No. 3, paper disc (6 mm) and base plates containing 10ml MH agar. Antibacterial activity was expressed as the ratio of the inhibition zone produced by CH₂Cl₂ extract and the inhibition zone caused by the reference, neomycin (2µg). No antibacterial activity was observed in ethyl-acetate and n-butanol fractions. EtOAc fraction was evaporated to dryness and residue obtained was dissolved in MeOH. The MeOH soluble of EtOAc fraction was fractionated on Whatman No. 3 chromatographic papers using BAW (n-BuOH:AcOH:H₂O, 4:1:5, V/V, upper layer) as an eluent. Two blue UV fluorescent flavone-5-O-glycosides: Quercetin-3-methyl ether-5-O-glycoside and Kaempferol-5-O-(6''-O-malonyl)-glycoside were isolated by RPPC from EtOAc fraction of acetone-H₂O (1:1) extract of fern fronds of *Cheilanthes dalhousiae*. The structural elucidation of the compounds was carried out by UV, ¹HNMR and MS spectral studies. [Nature and Science 2010;8(5):139-143]. (ISSN: 1545-0740).

Key Word :

Kumaun Himalaya, *Cheilanthes dalhousiae* (Hook), Medicinal plants

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