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A new sulphated flavone and other phytoconstituents from the leaves of *Tetracera indica* Merr. and their alpha-glucosidase inhibitory activity

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Abstract

The bioactivity guided fractionation of *Tetracera indica* leaves crude ethanolic extract has afforded the isolation and characterization of six compounds including a new natural product viz., 5,7-dihydroxyflavone-O-8-sulphate (1) and five known flavonoids (2-6). The structures of the compounds were elucidated using 1D and 2D NMR and HRESIMS spectroscopic analyses. All the isolated compounds were evaluated for their in vitro inhibitory activity against alpha-glucosidase. Compound 1, 5 and 6 showed strong alpha-glucosidase inhibitory activity, 3 and 4 displayed weak activity while compound 2 was inactive. The interactions of the active compounds with alpha-glucosidase were further investigated using molecular docking to confirm their antidiabetic potential.


[GRAPHICS]

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Author Keywords: *Tetracera indica*; dilleniaceae; sulphated flavonoid; alpha-glucosidase inhibitory activity; docking


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