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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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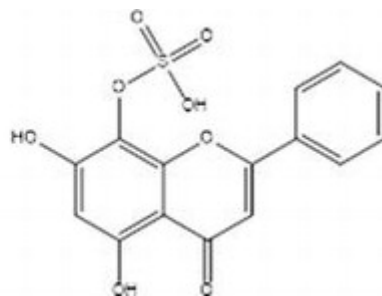
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Abstract

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.



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

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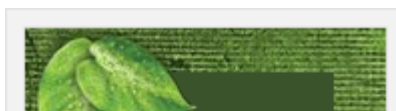
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