



Stigmasterol Tetracosanoate, a New Stigmasterol Ester from the Egyptian *Blepharis ciliaris*

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Abstract:

A new stigmasterol ester: stigmasterol tetracosanoate (3), along with 7 compounds: β -sitosterol (1), stigmasterol (2), (2S,3S,4R)-2[(2R)-2-(hydroxyeicosanoyl amino) octadecane-1,3,4-triol (4), apigenin (5), β -sitosterol-3-O- β -D-glucopyranoside (6), stigmasterol-3-O- β -D-glucopyranose (7), and apigenin-7-O- β -D-glucopyranoside (8) were isolated from *Blepharis ciliaris* aerial parts. Compounds 1, 2, and 5-7 are reported here for the first time from the plant and 4 for the first time from the family. GCMS analysis revealed the presence of 45 fatty acids, 53 hydrocarbons, and 24 sterols. The different fractions exhibited mild cytotoxic in brine shrimp assay and anti-hyperglycaemic activities. The EtOAc fraction and TME (total MeOH extract) showed weak anti-malarial activity against *P. falciparum*. The CHCl₃ fraction gave potent anti-inflammatory activity compared with indomethacin.

Keywords:

Blepharis ciliaris - stigmasterol tetracosanoate - GCMS - cytotoxic - anti-malarial - anti-inflammatory - anti-hyperglycaemic

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