



Antioxidant and Anti-Inflammatory Activities of Phenolic Constituents from *Primula elatior* L. Aerial Part

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Abstract:

Eight phenolic compounds were isolated from the EtOAc fraction of the aerial parts of *Primula elatior* L. (Primulaceae) cultivated in Egypt. Their structures were established as kaempferol (1), quercetin (2), 5-hydroxy pyrogallol (3), gallic acid methyl ester (4), gallic acid (5), 4'-methoxy kaempferol-3-O- β -glucuronopyranoside (6), kaempferol-3-O- β -glucuronopyranoside (7), and quercetin-3-O- β -glucuronopyranoside (8). Three of these compounds (6-8) have been isolated for the first time from the genus *Primula*. Their structures were confirmed by comparison of their chromatographic properties, chemical and spectroscopic data (UV, ¹H, and ¹³C NMR) with those reported in the literature. The isolated flavonoids 1, 2, and 6-8 were found to exhibit significant antioxidant and anti-inflammatory activities. This is the first report about the antioxidant and anti-inflammatory activities of compounds 6-8.

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