

Antidiabetic and Antioxidant Activities of Major Flavonoids of *Cynanchum acutum* L. (Asclepiadaceae) Growing in Egypt

Ghada A. Fawzy^a, Hossam M. Abdallah^{a,*}, Mohamed S. A. Marzouk^b, Fathy M. Soliman^a, and Amany A. Sleem^c

^a Department of Pharmacognosy, Faculty of Pharmacy, Cairo University, Kasr-El-Aini St., 11562 Cairo, Egypt. Fax: +202 37426807. E-mail: hmabdallah@yahoo.com

^b Chemistry of Tannins and Leather Technology, National Research Centre, El-Behoose St., El-Dokki, Giza, Egypt

^c Pharmacology Department, National Research Centre, El-Behoose St., El-Dokki, Giza, Egypt

* Author for correspondence and reprint requests

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Seven flavonoids were isolated from the butanol fraction of the methanolic extract of the aerial parts of *Cynanchum acutum* L. (Asclepiadaceae). All of which have been isolated for the first time from the genus *Cynanchum*. Their structures were established as quercetin 3-*O*- β -galacturonopyranoside (**1**), quercetin 7-*O*- β -glucopyranoside (**2**), tamarixtin 3-*O*- β -galacturonopyranoside (**3**), kaempferol 3-*O*- β -galacturonopyranoside (**4**), 8-hydroxyquercetin 3-*O*- β -galactopyranoside (**5**), tamarixtin 3-*O*- α -rhamnopyranoside (**6**), and tamarixtin 7-*O*- α -arabinopyranoside (**7**) on the basis of their chromatographic properties, chemical and spectroscopic data. The major isolated flavonoids **1**, **2** and **3** were found to exhibit significant antioxidant and antidiabetic activities (by measuring blood glucose and insulin levels). This is the first report about the antioxidant and antidiabetic activities of compounds **1–3**.

Key words: *Cynanchum acutum*, Antioxidant, Antidiabetic