

Molluscicidal Activity and New Flavonoids from Egyptian *Iris germanica* L. (var. *alba*)

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Dedicated to the late Dr. Amer H. Ahmed

The molluscicidal activity of leaf and rhizome extracts of *Iris germanica* L. (var. *alba*) against *Biomphalaria alexandrina* snails was evaluated and the rhizome extracts were found to be the most potent. Activity-guided fractionation revealed that the chloroform extract showed the highest molluscicidal activity (LC₉₀ = 1.26 mg/l) among the tested extracts of the rhizomes. Fraction B prepared from the chloroform extract was the most potent molluscicide (LC₉₀ = 0.96 mg/l) in addition, it showed a significant heart rate reduction in the snail after a 6- to 24-h exposure period. It also displayed a significant level of cercaricidal potential in a time-concentration relationship pattern. Chromatographic fractionation and purification of fraction B resulted in the isolation of two novel compounds: 5,2'-dihydroxy-3-methoxy-6,7-methylenedioxyflavone and 5,7,2'-trihydroxy-6-methoxyflavanone. Their structures were established by one- and two-dimensional NMR methods and mass spectrometry.

Key words: *Iris germanica* L. (var. *alba*), Molluscicidal Activity, Flavonoids