

Hepatoprotection and Antioxidant Activity of *Gazania longiscapa* and *G. rigens* with the Isolation and Quantitative Analysis of Bioactive Metabolites

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Abstract

Gazania longiscapa and *G. rigens* are two species belonging to family Asteraceae. The present study aimed the isolation of the main active constituents from the methanol extracts using different chromatographic methods and their identification using different spectroscopic techniques, beside the quantitation of some biologically important active constituent as rutin using HPLC technique, together with estimation of total polyphenolic content calculated as gallic acid and estimation of total flavonoid content calculated as rutin using UV technique. Concomitantly the determination of the antioxidant and hepatoprotective activity of the total methanol extracts of the aerial parts of *G. longiscapa* and *G. rigens*. This work resulted in the isolation of 4 flavonoids (Apigenin, Luteolin, Luteolin 7-O- β -D-glucopyranosid, Apigenin 7-O- β -D-glucopyranosid), 3 phenolic acids (Caffeic acid, Chlorogenic acid and 3,5- di- O-caffeoylquinic acid) from *G. longiscapa* for the first time; these 3 phenolic acids were also isolated from *G. rigens*, together with one flavonoid (rutin), The quantitative determination of the methanol extracts showed that *G. longiscapa* is a richer source of phenolic acids than *G. rigens* and both *Gazania* species are valuable sources of rutin beside having hepatoprotective and antioxidant activity.

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