

Comparative DNA profiling, botanical identification and biological evaluation of *Gazania longiscapa* DC and *Gazania rigens* L.

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Abstract

Abstract *Gazania longiscapa* DC and *Gazania rigens* L. are species of cultivated ornamental plant that grow in Egypt. Genus *Gazania* has a role in folk medicine to prevent toothache; this study presents a comparative investigation of genetic and botanical features of root, rhizome, leaves and flowers of the two *Gazania* species and comparing their biological activity as analgesic and antiinflammatory as related to their folk medicinal use. The genetic and botanical differences between the two *Gazania* species are reported for the first time in this study. The results contribute toward validation of the traditional use of *Gazania* showing that both species are safe for oral administration and they exhibit significant antinociceptive and anti-inflammatory effects in a dose dependent manner.

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