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The phytochemistry and biological diversity of *Ferulago* genus (Apiaceae): a systematic review

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Abstract

Objectives The genus *Ferulago* belonging to the family Apiaceae is a flora widely distributed in Central Asia and the Mediterranean and used in folk medicine. It is administered as a sedative, tonic, digestive, aphrodisiac, also as a treatment for intestinal worms and haemorrhoids. Herein, we reported a review on phytochemistry and its biological activities reported from 1990 up to early 2020. All the information and reported studies concerning *Ferulago* plants were summarized from the library and digital databases (e.g. Scopus, Medline, Scielo, ScienceDirect, SciFinder and Google Scholar).

Key findings The phytochemical investigations of *Ferulago* species revealed the presence of coumarins as the main bioactive compounds, including daucane derivatives, sesquiterpenes aryl esters, phenol derivatives, flavonoids and essential oils. Moreover, the therapeutic potentials of the pure compounds isolated from the genus *Ferulago* possess promising properties namely anticholinesterase, antimicrobial, anticoagulant, antileishmanial, antioxidant, antibacterial and antiproliferative.

Summary Today, significant advances in phytochemical and biological activity studies of different *Ferulago* species have been revealed. The traditional uses and reported biological results could be correlated via the chemical characterization of these plants. All these data will support the biologists in the elucidation of the biological mechanisms of these plants.

Keywords

Author Keywords: [Apiaceae](#); [Ferulago](#); [coumarin](#); [sesquiterpene](#); [essential oil](#); [bioactivity](#)

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