

عنوان مقاله:

LC-MS based identification of stylosin and tschimgine from fungal endophytes associated with *Ferula ovina*

محل انتشار:

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خلاصه مقاله:

Objective(s): *Ferula ovina* is an Iranian medicinal plant. Tschimgine and stylosin are two of its major monoterpene derivatives. In this study, we proceeded to investigate some fungal endophytes from *F. ovina* that can produce plant secondary metabolites. Materials and Methods: The isolated endophytic fungi were fermented in potato dextrose broth (PDB) medium and their extracts were screened for the presence of the plant compounds by liquid chromatography-tandem mass spectrometry (LC-MS). Endophytes identification was performed by morphological and molecular methods. Three markers (ITS, LSU, and TEF1) were used for accurate molecular identification. Results: Forty isolates from 9 different genera of endophytic fungi were identified, of which two recently reported species of *O. ferulica* and *Pithoascus persicus* were able to produce tschimgine and stylosin. Conclusion: These fungi can be used as a substitute for the production of plant's medicinal compounds independent of wild populations of the source plant.

کلمات کلیدی:

Ferula ovina, Fungal endophytes, *Ochroconis ferulica*, *Pithoascus persicus*, Stylosin, Tschimgine

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