

Antibacterial and Antioxidant Activity and Essential Oil Composition of *Grammosciadium scabridum* Boiss. from Iran

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Z. Naturforsch. **60c**, 534–538 (2005); received February 28, 2005

The *in vitro* antibacterial and antioxidant activity of the essential oil and its two main components of *Grammosciadium scabridum* Boiss. (Apiaceae) growing wild in Iran, as well as the composition of its essential oil were studied. A total of 19 compounds representing 99.9% of the oil has been identified. γ -Terpinene (73.5%), *p*-cymene (14.2%) and (*E*)- β -farnesene (5.3%) were characterized as the main components. The oil showed remarkable activity against three Gram-negative and four Gram-positive test bacteria, with minimal inhibitory concentration (MIC) values ranging from 0.31 to 10.00 mg/ml. The oil and its two main components were also subjected to screening for their possible antioxidant activity by using the 2,2-diphenyl-1-picrylhydrazyl (DPPH) assay. The free radical scavenging capacity of the oil was determined with an IC₅₀ value of 6.6 mg/ml.

Key words: *Grammosciadium scabridum*, Essential Oil, Antibacterial and Antioxidant Activity