

**Determination of Antioxidant Capacity of *Sphaerophysa kotschyana* Boiss.**

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**Aim of the study:** The number of method to measure the antioxidants in botanicals, foods, nutraceuticals and other dietary supplements has been increased considerably the last two decade. The antioxidant capacity of halophytic endemic *Sphaerophysa kotschyana* was investigated by various *in vitro* tests.

**Material and Methods:** Aerial parts of *S. kotschyana* were collected from Tuz Lake environments, dried, and extracted with methanol/dichloromethane. *S. kotschyana* was evaluated by employing various *in vitro* antioxidant assay such as 2,2-diphenyl-1-picrylhydrazyl free radical (DPPH) scavenging, 2,20-azino-bis(3-ethylbenzthiazoline-6-sulfonic acid) (ABTS<sup>+</sup>) radical scavenging activities and Ferric ions (Fe<sup>3+</sup>) reducing antioxidant power assay (FRAP).

**Results:** ABTS radical scavenging activity of *S. kotschyana* extract was similar comparing standards. FRAP and DPPH activities of *S. kotschyana* extract were lower than activities of the standards. Therefore, ABTS can be used as a cation radical scavenging agent.

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**Keywords:** *Sphaerophysa kotschyana*, antioxidant activity