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Investigation of Total Phenolic Contents, Antioxidant Activity and Some Micronutrients in *chaerophyllum macrospermum* (Spreng.)

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This study was designed to investigate Antioxidant activity and determine some Micronutrients of aerial parts of *chaerophyllum macrospermum* (Spreng.). This plant is an endemic perennial shrub, belongs to *Apiaceae* family. Samples were harvested from Zerehshouran of Takaab, in Azarbaijan Province in the north west of Iran in May. The total phenolic content was determined by Folin–Ciocalte Method, antioxidant activity by 1,1-diphenyl-2-picryl-hydrazyl (DPPH) Method and the amount of micronutrients including Fe, Mn, Zn and Cu by Using Atomic Absorption Spectroscopy method. TPC was measured to 43.1 mg/g dry weight, expressed as gallic acid equivalents (GAE). Antioxidant activity or inhibitory activity of samples was evaluated to 79%. The amount of Fe, Mn, Zn and Cu was calculated as 278, 45, 1271 and 19 mg/Kg. The results has shown that *C. macrospermum* (Spreng.) has significant scavenging capacity and TPC. Is could also be a valuable source of micronutrients.

Keywords: Medicinal plants, Micronutrient, Antioxidant, Phenolic content