Evaluation of antioxidant and quantitative determination of phenolic and flavonoids content of *Iris postii* Mouterde growing in Kurdistan region, Iraq

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The present study describes for the first time the *in vitro* antioxidant properties and estimation of total Phenolic and Flavonoids content of *Iris postii* Mouterde arial parts and roots; on the other hand, *Iris postii* is commonly employed in the Kurdish traditional medicine for the treatment of inflammation. DCM, Methanol and hydro aqueous methanol extract of roots and arial parts of *Iris postii* were investigated for their antioxidant potential, using various *in vitro* models, i.e., 1,1-diphenyl-2-picrylhydrazyl radical (DPPH) scavenging activity, total antioxidant activity, ferric reducing antioxidant power (FRAP) assay and hydrogen peroxide scavenging activity. The present investigation revealed that the arial parts and roots of *Iris postii* contains significant amount of polyphenols and flavonoids. The hydro-methanolic extract of I. postii had shown very significant DPPH radical scavenging activity compared to standard antioxidant, P4 extract IC50 92 μg/ml and P5 extract IC50 115 μg/ml, while Ascorbic acid (standard) IC50 112.74 μg/ml. For TAOC, Ascorbic acid is IC50 0.869 mg/ml and P2 IC50 2.24 mg/ml. While for the FRAP activity, P3 at Dose 500 mg/ml to 900 mg/ml had an absorbance of 1.34 to 2.068 at 700 nm respectively. The results obtained in the present study indicated *Iris postii* can acts as a potential source of antioxidant.

Biography

Hawraz Ibrahim M Amin is currently a PhD student in Phytochemistry and Drug Discovery from University of Salahaddin, Iraq. In 2012, he has completed his Master’s in Organic Chemistry, Natural Product from University of Pavia, Italy. In 2007, he has completed his Bachelor of Science in Chemistry from University of Salahaddin, Iraq. He serves as the General Supervisor at Institute of Chemical Investigation (ICI). He has 4 publications to his credit and has participated in 2 conferences.

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