

## عنوان مقاله:

In Vitro Free Radical Scavenging Effect and Total Phenolic and Flavonoid Contents of 30 Iranian Plant Species

## محل انتشار:

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## خلاصه مقاله:

This research involved antioxidant screening and evaluation of total phenol and flavonoid contents of ethanolic extracts from 30 Iranian plant species. Total phenol content was determined for each extract using the Folin-Ciocalteu method and total flavonoids was assessed by the Dowd method. A high phenol content was detected for *Loranthus grewinkii* ( $35.32 \pm 0.31$  mg gallic acid equivalent (GAE)/g) of dry plant followed by *Pteropyrum olivieri*, *Phoenix dactylifera*, *Cercis griffithii* and *Lippia citriodora*. While relatively low levels of flavonoid content were detected for tested plants except in *Pteropyrum olivieri* ( $14.53 \pm 0.13$  mg QE/g of dry plant). Free radical scavenging activity was determined using DPPH (1,1-diphenyl-2-picrylhydrazyl), NO (Nitric Oxide) and ABTS (2,2'-azino-bis(3-ethylbenzothiazoline-6-sulphonic acid) free radical assays. Ferric Reducing Antioxidant Power (FRAP) assay was conducted as a measure of antioxidant capacity. *L. grewinkii* was superior in DPPH, NO and ABTS free radical inhibition. Extract of *P. olivieri* demonstrated a potent inhibitory activity against NO free radical compared to quercetin. Based on overall antioxidant activity, *L. grewinkii* was determined as the strongest in terms of free radical scavenging effect. A positive correlation observed between phenolic content and the activity while the flavonoids may have major contribution to manifestation of antioxidant activity in most of the investigated plant species.

## کلمات کلیدی:

Total phenol, Total Flavonoid, Antioxidant Activity

## لینک ثابت مقاله در پایگاه سیویلیکا:

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