

QUANTITATIVE DETERMINATION OF POLYPHENOLS AND STUDY OF ANTIOXIDANT ACTIVITY OF A TRADITIONALLY IMPORTANT MEDICINAL PLANT: *HELICTERES ISORA* LINN.

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Abstract: In the present study *in vitro* anti-oxidative potential and free radical scavenging activity were analyzed for hydroethanolic extract of *Helicteres isora* Linn. (HEHI) stem bark by chemical assays including DPPH (2, 2-diphenyl-1-picrylhydrazyl), superoxide anion radical scavenging, ferric ion reducing antioxidant power (FRAP) metal chelating activity. These assays were compared with standard antioxidants such as ascorbic acid, BHT, rutin, EDTA. Total phenolic and flavonoid content were also determined spectrophotometrically. IC₅₀ value of HEHI obtained in DPPH, superoxide anion radical scavenging and metal chelating activity were 97.53 ± 0.281 , 5.40 ± 0.032 , 165.7 ± 0.45 respectively. The results obtained revealed that *Helicteres isora* L. can be used as a potential source of natural antioxidants.

Keywords: Antioxidant, DPPH, Free radical, Phenols, *Helicteres isora*

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