



Research article

## ***In Vitro* Antioxidant Activity of Fresh and Shade Dried *Tamarindus Indica* Leaves using Different Solvents**

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**Keywords:** *Tamarindus indica*, antioxidant activity, DPPH assay method, Folin Ciocalten method.

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### **Abstract**

**Objective:** The present study was aimed to ascertain the antioxidant status of different solvent leaf extracts of *Tamarindus indica leaves* and its potential for scavenging free radical species in the body and by the determination of their total phenolics content.

**Methods:** The different solvent plant extract was screened for possible antioxidant activities by the determination of total phenolic content by using Folin – Ciocalten reagent method and 2, 2-diphenyl 1-picrylhydrazyl (DPPH) free radical scavenging assay.

**Results:** The results of this study revealed that, the percentage inhibition of different extracts of water (WE) and hydroalcoholic (HAE) of *Tamarindus indica* was concentration dependent with an effective concentration at fifty percent of 79.49 µg/ml and 82.96 µg/ml compared to that of standard with IC 50 of 77.08 µg/ml, but the petroleum ether (PEE) and chloroform (CE) extracts revealed a very poor antioxidant activity (significantly lower IC 50 values = 144.17µg/ml and 279.74µg/ml).

**Conclusion:** The antioxidant screening results indicate that exciting DPPH radical scavenging activity was observed in water and hydroalcoholic leaf extract of *Tamarindus indica* in comparison with standard ascorbic acid. This suggests that *T. indica* extracts exhibit a great potential for antioxidant activity and may be useful for their future nutritional and medicinal developments.