

Isolation, identification and antioxidant potential of culturable endophytic fungus *Chaetomium* LAV 15 associated with leaves of *Tinospora cordifolia*

VEENA YADAV*, ANURADHA SINGH AND NUPUR MATHUR

EMM Laboratory, Department of Zoology, University of Rajasthan, Jaipur- 302004, Rajasthan

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Indian medicinal plant *Tinospora cordifolia* is often called Amrita due to several substances in the extract of its parts that potentially act as a strong antioxidant and have been prized in folk and traditional medicinal systems for ages to improve health and treat various diseases. In the present study, we isolated endophytic fungus from the leaves of *Tinospora cordifolia* as *Chaetomium* LAV 15 (Accession number: MK212345) species. Hence, the antioxidant activities of isolated endophytic fungus were assessed using total phenol, total flavonoids, total antioxidant activity and 2,2-diphenyl-1-picrylhydrazyl (DPPH) methods. Further research on Gas chromatography and mass spectrometry (GC-MS) analysis of the isolated endophytic fungus revealed the presence of many impressive compounds such as host metabolites 2,4-di-tert-butylphenol, an important antioxidant metabolite.

Key words: Antioxidant activity, endophytic fungi, GC-MS analysis, *Tinospora cordifolia*, 2,4-Di-tert-butylphenol.
