

**Research Article**

## **Characterization of Antibacterial Metabolites from the Endophytic Fungus *Geotrichum pseudocandidum*, Isolated from *Oroxylum indicum* (L.) Vent.**

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### **Abstract**

An endophytic fungus was isolated from the root of an endangered medicinal tree *Oroxylum indicum* and assessed for its antibacterial activity. And the extracted secondary metabolites were screened for the antibacterial activity against six pathogenic bacteria. The extracted metabolite were characterized and identified by gas chromatography–mass spectrometry. Based on the ITS region sequence and phylogenetic analysis, OiS–1 strain screened in the present study was identified as *Geotrichum pseudocandidum*. Ethyl acetate extract obtained from strain OiS–1 shown highest antibacterial activity. The main components in all fractions were 3–Cyclohexene–1–ol, 4–mehtyl–1–(1–methylethyl) – (R) also known as Terpinen–4–ol and (–)–5–oxatricyclo (8.2.0.0 (4, 6) and dodecane, 12–TRI which is also known as caryphyllene oxide.

**Key words:** Aqueous fraction, callus culture, endophytic fungi, GC-MS, *Oroxylum indicum* pathogenic bacteria.

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