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TWO SESQUITERPENE DILACTONES FROM UNIDENTIFIED ENDOPHYTIC FUNGUS FROM *MIKANIA SCANDENS*

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The term endophyte refers to a bacterial or a fungal microorganism that inhabits internal organs of plants, without causing visible pathogenic effects on its host (s). Endophytes are increasingly being identified as a group of organisms capable of providing a rich source of secondary metabolites for use as pharmaceuticals and agrochemicals. The white colored fungal strain NP-M1 was isolated (after the triple sterilization process with 70% ethanol and 5% NaOCl) from the leaves of *Mikania scandens*, previously identified by us as an allelopathic active plant. NP-M1 was cultivated on large scale on rice media (28 days, 100g of rice x 16) and then extracted sequentially with ethyl acetate and acetone. Silica gel and sephadex LH-20 column chromatography followed by preparative thin layer chromatograph on the combined ethyl acetate and acetone extracts gave two sesquiterpene dilactones, identified as mikanolide (**1**) and dihydromikanolide (**2**). Structural elucidation of the isolates was carried out using spectroscopic analysis (^{1}H and ^{13}C NMR, and FABMS) and by comparison with reported data. Mikanolide (**1**) had been previously isolated from leaves of *M. scandens* by us and shown to be a highly allelopathic active, with minimum inhibitory concentration of 0.083 μM/mL against lettuce seed germination bioassay. Isolation of **1** from the leaves of *M. scandens* as well as from the endophytic fungal strain NP-M1 is of significance. The two compounds **1** & **2** had been previously reported from the plant *Mikania micrantha*, *M. monagasensis* and *M. cordata*, and reported to show antibacterial activity against *Staphylococcus aureus* and *β* haemolytic *Streptococcus* group A. It has also been reported that **1** & **2** enriched extracts showed DNA polymerase inhibitory activity.

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