**Isolation of a natural product and antimicrobial activities examination of a mangrove plant of Sundarban (*Sarcolobus globosus)***

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**Abstract:** *Sarcolobus globosus* is a mangrove plant used in traditional and folk medicine to treat a variety of diseases. Eight endophytic (SGL1, SGL2, SGL3, SGS1, SGS2, SGS3, SGF1, SGR1) fungi were isolated from this plant. DPPH free radical scavenging assay and disc diffusion method were utilized to evaluate the antimicrobial properties respectively of the isolated fungal extracts. Among those, the isolated fungi, *Lasiodiplodia* (SG-R1) has been selected for large scale culture for metabolite purification. One pure compound (SG-R1) was isolated from the fungi and bioactivity was observed against two gram negative and positive bacteria. With this study the isolated compound have now been found from two different fungi of same plant of *Sarcolobus globosus.* This suggests the compound may play a role in plant defense system against invasion of microbes. This will be interesting to DNA sequence of both the fungi in future to know species and the biosynthesis pathway involved in making of the secondary metabolites.

***Key words:***Isolation, Natural Product, Antimicrobial, Mangrove Plant, Sundarban, *Sarcolobus globosusus*