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ABSTRACT BOOK

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ANT ACADEMY



**IN VITRO ANTIMICROBIAL ACTIVITY SCREENING OF *Lyophyllum decastes* (Fr.)
Singer**

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Oral Presentation

Fungi in the fungal kingdom constitute the second largest living group in the biosphere after insects. The genus *Lyophyllum* is in the class *Agaricomycetes* of the phylum *Basidiomycetes* and is widely distributed among northern temperate ecosystems. Although about 40 species have been defined in the genus *Lyophyllum*, it is the most studied *Lyophyllum decastes* species. It is known that *L. decastes* species exhibits many biological activities such as radioprotective, antitumor, antifungal, antidiabetic, and antioxidant. It is thought that the main reason for their biological activities is due to various bioactive components such as ribonucleases and beta-D-glucan in their structures. In this study, ethanol extract was prepared ~~in order~~ to determine the antimicrobial activity of *L. decastes* species and it was loaded on empty antibiogram discs in 50 µl, 100 µl, and 200 µl amounts using the disc diffusion method, and its effect against 48 strains was observed. As a result of the disc diffusion test, it was observed that the ethanol extract of *L. decastes* had an antibacterial effect against *Bacillus subtilis* DSMZ 1971, *Staphylococcus aureus* ATCC 25923, *Staphylococcus hominis* ATCC 27844, *Staphylococcus warneri* ATCC 27836, *Bacillus cereus* RSKK 863 and *Listeria innocua* robes.

Keywords: *Lyophyllum decastes* (Fr.) Singer, Antimicrobial activity, Disc diffusion method