

The Antimicrobial Activity of Extracts of the Lichen *Cladonia foliacea* and Its (–)-Usnic Acid, Atranorin, and Fumarprotocetraric Acid Constituents

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The antimicrobial activity of the chloroform, diethyl ether, acetone, petroleum ether, and ethanol extracts of the lichen *Cladonia foliacea* and its (–)-usnic acid, atranorin, and fumarprotocetraric acid constituents against 9 bacteria and fungi has been investigated. The extracts and pure compounds alone were found active against the same bacteria and the same yeasts. *Bacillus cereus*, *Bacillus subtilis*, *Staphylococcus aureus*, *Streptococcus faecalis*, *Proteus vulgaris*, *Listeria monocytogenes*, *Aeromonas hydrophila*, *Candida albicans*, and *Candida glabrata* growth were inhibited. In addition, the MICs of the extracts, (–)-usnic acid, atranorin and fumarprotocetraric acid were determined.

Key words: *Cladonia foliacea*, Antimicrobial Activity, Lichen Compound