

## ABSTRACT

Dasilva Permata Arru. 24020220140072. **Antifungal Activity Test and GC-MS (Gas Chromatography – Mass Spectrometry) Analysis of Ethanol Extract of *Ramalina* against *Candida albicans*.** Under the guidance of Arina Tri Lunggani and Lilih Khotimperwati.

Infectious diseases are still a serious problem in Indonesia, especially candidiasis. Candidiasis is an opportunistic infection caused by *Candida albicans* and usually affects the mouth, skin and genital area. *Lichens* of the genus *Ramalina* contain various bioactive compounds that act as antifungals. This study aims to determine the characteristics of *Ramalina*, determine the inhibition of ethanol extract of *Ramalina* against *Candida albicans* growth and determine the bioactive compounds contained in *Ramalina*. Identification of *Ramalina* was done for the external and internal structure. Antifungal activity test was conducted using disc diffusion method with different concentrations of ethanol extract of *Ramalina*, DMSO as negative control and *fluconazole* as positive control. The results showed that the ethanol extract of *Ramalina peruviana* can inhibit the growth of *Candida albicans* at concentrations of 0.1 mg/mL (3.55 mm); 0.2 mg/mL (3.85 mm); 0.3 mg/mL (5.12 mm); 0.4 mg/mL (6.15 mm) and the concentration of 0.4 mg/mL extract proved effective because it was able to compensate for the positive control (9.87 mm) with moderate inhibition. The ethanol extract of *Ramalina peruviana* contains the compounds *Cyclopentasiloxane, decamethyl-* (CAS), *Phenol, 2-methoxy-4-(2-propenyl)-* (CAS), *Benzoic acid, 2-hydroxy-4-methoxy-3,5, 6-trimethyl-, methyl ester* (CAS), *Hexadecanoic acid, methyl ester* (CAS), *n-Hexadecanoic acid and 1,2-Benzenedicarboxylic acid, 3-nitro-* (CAS) which act as antifungal.

*Keywords: Antifungal, Candida albicans, Ramalina*