ABSTRACT

Antimicrobial Activity of Fractions of Ethyl Acetate Extract from Endophytic Fungi *Aspergillus salwaensis* strain DTO297C1 Isolated from *Chromolaena odorata*

Rahmah

Endophytic microbes can produce useful bioactive compounds such as antimicrobial agent. Therefore, today, endophytic microbes are widely used as antibacterial and antifungal sources. The previous studies have shown that the ethyl acetate extract of *Aspergillus salwaensis* possess antimicrobial activity. This study aims to determine which fractions have antimicrobial activity. Ethyl acetate extract of *Aspergillus salwaensis* was fractionated by column chromatography and resulted 18 fractions. Phytochemical screening by TLC method showed that fractions 1-11 and 14 contain terpenoid/steroid; fractions 2, 3, 4 and 6 contain polyphenol; and fractions 2 and 3 contain flavonoid. Antimicrobial activity test was performed against *Bacillus subtilis*, *Staphylococcus aureus* and *Candida albicans*. Inhibitory zones appeared in fractions 3, 4, 5, 6 and 8 from concentration of 100 μg. Fractions 4, 5 and 6 from concentration of 20 μg and fractions 7 and 9 concentration of 100 μg also showed partial antimicrobial activity.

Keywords: *Chromolaena odorata*, Endophytic fungus, *Aspergillus salwaensis* DTO297C1, fractination, antimicrobial activity.