

ABSTRACT

METABOLITE PURIFICATION AND CHARACTERIZATION OF FRACTION-4 OF ETHYL ACETATE EXTRACT ENDOPHYTIC FUNGI *Aspergillus salwaensis* STRAIN DTO297C1 ISOLATED FROM *Chromolaena odorata*

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The endophytic fungi *Aspergillus salwaensis* DTO297C1 were isolated from *Chromolaena odorata*. The activity showed positive antimicrobial against 3 tested bacteria namely *B.subtillis*, *S. aureus*, *E. coli*, and fungus *C. albicans*. After fractionation, fraction-4 also demonstrated similar activities. Further research was carried out for the metabolite purification and characterization of ethyl acetate extract fraction-4 of endophytic fungus *Aspergillus salwaensis* DTO297C1. Purification was carried out using preparative thin layer chromatography method, stationary phase silica gel 60 GF₂₅₄, mobile phase *n*-hexane: ethyl acetate = 2: 6. The results of purification were 10 subfractions. Subfraction was further characterized using GC-FID, HP-5 column. The result of GC-FID showed subfraction to be further characterized were subfraction 4.4, 4.7, 4.8, and 4.10. The GC-MS method was chosen for further characterization of the three subfractions. There were compounds identified in the three subfractions, i.e. penicillic acid, ethanone,1-(2-hydroxy-4-methoxyphenyl), stigmaterol, γ -sitosterol, β -sitosterol, and pinostrobin.

Keywords : Endophytic fungi, *Chromolaena odorata*, *Aspergillus salwaensis*, antimicroba