

ABSTRACT

ISOLATION AND IDENTIFICATION ANTI INFLAMMATORY COMPOUND FROM HEARTWOOD *Rhizophora apiculata*

Oleh

Devy Cendekia

This study has been carried out the isolation, identification, and anti inflammatory compound of the heartwood oil Bakau (*Rhizophora apiculata*) has been conducted. Isolation process include stages macarated with methanol, vacuum liquid chromatography separation (VLC) and purification by chromatotron using eluent dichloromethane/*n*-hexane. Identification of isolated compound by TLC with three different eluent systems of which the eluent dichloromethane/chloroform (2:3), *n*-hexane/ethyl acetate (4:1), and dichloromethane/ethyl acetate (9:1) produced a stain with R_f value 0.19; 0.37; and 0.68, and the determination of the melting point of 161⁰C-162⁰C indicates these compound has been pure. Isolated compound was needle-shaped crystal clear as much as 54.8 mg. Determination of the structure of compounds was done with ultra violet spectrometry, infrared spectrometry, NMR, and GC-MS. Results of analysis of compound by spectroscopy and GC-MS showed isolated compound is stigmast-5en-3 β -ol (β -sitosterol) with m/z 414. In the anti inflammatory tests the has anti-inflammatory is more effective at a concentration of 0.6 mg/mL compared to the concentration of 1.4 mg/mL.

Keywords : anti inflammatory, β -sitosterol, *Rhizopora apiculata*