ABSTRAK

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Bidang studi : Farmasi

Judul :“ Identifikasi Senyawa Metabolit Sekunder Ekstrak Metanol Kapang Endofit Isolat RLC5, CLC2 dan PLC4 Asal Tanaman Kayu Jawa (*Lannea coromandelica* (Houtt.) Merr.)”

Tanaman kayu jawa mengandung senyawa metabolit sekunder yang berpotensi sebagai antimikroba dan antioksidan, oleh karena itu membuka peluang pemanfaatan sebagai senyawa bioaktif melalui penggunaan kapang endofit. Penelitian ini bertujuan untuk mengidentifikasi senyawa metabolit sekunder ekstrak metanol kapang endofit isolat RLC5, CLC2 dan PLC4 asal tanaman kayu jawa (*Lannea coromandelica* (Houtt.) Merr.) menggunakan instrumen *Gas Chromatography Mass Spectrometer* (*GC-MS*). Isolat kapang endofit difermentasikan selama 21 hari dengan metode statis, biomassa hasil fermentasi diekstraksi dengan pelarut metanol. Hasil penelitian menunjukkan bahwa ketiga isolat mengandung beberapa golongan senyawa metabolit sekunder yang bermanfaat khususnya antibakteri dan antioksidan. Isolat RLC5 memiliki 5 golongan yaitu, flavonoid, asam lemak, asam lemak ester, terpenoid, steroid. Isolat CLC2 memiliki 3 golongan yaitu, flavonoid, asam lemak, asam lemak ester. Isolat PLC4 memiliki 4 golongan yaitu, flavonoid, asam lemak, asam lemak ester, terpenoid.

Kata Kunci : Kapang endofit, senyawa metabolit sekunder, tanaman kayu jawa

ABSTRACT

Name : *Khoirunnisa*

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Title : *"Identification of Secondary Metabolite Compounds Methanol Extract of Endophytic Fungi Isolates RLC5, CLC2 and PLC4 from Kayu Jawa (Lannea coromandelica (Houtt.) Merr.)".*

Kayu Jawa contain secondary metabolites that have potential as antimicrobials and antioxidants, therefore they open opportunities for utilization as bioactive compounds through the use of endophytic fungi. This study aims to identify the secondary metabolites of the methanol extract of endophytic fungi isolates RLC5, CLC2 and PLC4 from the Kayu Jawa (Lannea coromandelica (Houtt.) Merr.) using a Gas Chromatography Mass Spectrometer (GC-MS). Endophytic fungi isolates were fermented for 21 days using a static method, the fermented biomass was extracted with methanol as a solvent. The results showed that the three isolates contained several classes of secondary metabolite compounds which were especially useful as antibacterial and antioxidant. RLC5 isolates have 5 groups of compounds namely, flavonoids, fatty acids, fatty acid esters, terpenoids, steroids. CLC2 isolate has 3 groups of compounds namely, flavonoids, fatty acids, fatty acid esters. PLC4 isolates have 4 groups of compounds namely, flavonoids, fatty acids, fatty acid, terpenoids.

Keywords: *Endophytic fungi, secondary metabolites, kayu jawa plant*