

ABSTRAK

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

Banyak ditemukan bahan alam yang berpotensi sebagai anti mikroba. Tanaman Kayu Jawa diketahui mengandung senyawa metabolit sekunder seperti alkohol, steroid, triterpenoid, fenolik, flavonoid, dan saponin yang merupakan kelompok senyawa bioaktif. Fungi endofit yang tumbuh pada jaringan tumbuhan obat, juga dapat menghasilkan senyawa yang memiliki khasiat sama dengan tanaman inangnya. Penelitian ini bertujuan untuk mengidentifikasi senyawa metabolit sekunder ekstrak metanol hasil fermentasi goyang kapang endofit isolat RLC5, PLC4 dan CLC2 menggunakan alat Gas Chromatography Mass Spectrometer (GC-MS). Hasil penelitian menunjukkan bahwa ketiga isolat mengandung beberapa golongan senyawa metabolit sekunder yang bermanfaat seperti antimikroba, antikanker, antiinflamasi, antioksidan. Isolat RLC5 memiliki 4 golongan yaitu asam lemak, asam lemak ester, terpenoid, steroid. Isolat PLC4 memiliki 4 golongan yaitu asam lemak, asam lemak ester, terpenoid, steroid. Isolat CLC2 memiliki 3 golongan yaitu asam lemak, asam lemak ester dan triterpenoid.

Kata kunci: fungi endofit, senyawa metabolit sekunder, tanaman kayu jawa

ABSTRACT

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Title : "*Identification of Secondary Metabolite Compounds of Metanol Extract from Fermentation of Goyang Endophytic Molds RLC5, PLC4 and CLC2 Isolates of Java Woody Plant (Lannea coromandelica (Houtt.) Merr.)*"

Many natural ingredients are found that have the potential to be anti-microbial. Kayu jawa plants are known to contain secondary metabolite compounds such as alcohol, steroids, triterpenoids, phenolics, flavonoids, and saponins which are a group of bioactive compounds. Endophytic fungi that grow on medicinal plant tissues, can also produce compounds that have the same properties as their host plants. This study aims to identify secondary metabolite compounds of metanol extract from shaking fermentation endophytic mold isolates RLC5, PLC4 and CLC2 using the Gas Chromatography Mass Spectrometer (GC-MS) tool. The results showed that the three isolates contained several classes of beneficial secondary metabolite compounds such as antimicrobial, anticancer, anti-inflammatory, antioxidant. RLC5 isolates have 4 groups, namely fatty acids, ester fatty acids, triterpenoids, steroids. PLC4 isolates have 4 groups, namely fatty acids, ester fatty acids, triterpenoids, steroids. CLC2 isolates have 3 groups, namely as groups are fatty acids, ester fatty acids and triterpenoids.

Keywords : endophytic fungi, secondary metabolite compounds, kayu jawa plants