

ABSTRAK

Temu tis (*Curcuma purpurascens*) merupakan tanaman obat yang dapat mengobati gangguan kesehatan, infeksi saluran pencernaan dan penyakit kulit. Penelitian ini bertujuan untuk mengisolasi dan mengidentifikasi senyawa bioaktif ekstrak *n*-heksana rimpang temu tis serta menguji aktivitasnya terhadap jamur *Candida albicans* dan *Malassezia furfur* menggunakan metode difusi cakram. Tahapan penelitian meliputi ekstraksi dengan cara maserasi serbuk rimpang temu tis dengan pelarut *n*-heksana, ekstrak *n*-heksana kemudian difraksinasi serta dimurnikan dengan kromatografi cair vakum (KCV) dan kromatografi sentrifugal (kromatotron). Uji fitokimia menunjukkan bahwa isolat yang didapatkan memberikan hasil positif pada uji terpenoid. Senyawa hasil isolasi selanjutnya diidentifikasi menggunakan *Gas Chromatography Mass Spectrometry* (GC-MS), uji aktivitas antijamur terhadap jamur *C. albicans* dan *M. furfur* dilakukan pada ekstrak *n*-heksana, fraksi dan senyawa hasil isolasi. Hasil analisis GCMS dari isolat fgk1 menunjukkan bahwa terdapat 3 senyawa utama yang teridentifikasi berdasarkan data literatur yaitu metil heksadekanoat; metil 9(Z)-oktadekenoat dan metil stearat. Senyawa yang paling dominan yaitu metil 9(Z)-oktadekenoat dengan rumus molekul $C_{19}H_{36}O_2$ dan berat molekul 296. Hasil uji antijamur menunjukkan bahwa hasil isolasi memiliki aktivitas antijamur terhadap jamur *C. albicans* dan *M. furfur* dengan nilai zona hambat berturut-turut 2,13 mm dan 1,42 mm.

Kata kunci: *Curcuma purpurascens*, *C. albicans*, difusi cakram, GC-MS dan *M. furfur*.

ABSTRACT

Temu tis (*Curcuma purpurascens*) is a medicinal plant that can treat various health problems, digestive tract infections and skin diseases. The objective of this study was to isolate and identify the bioactive compound *n*-hexane extract of temu tis rhizome and to test its activity against the fungi *Candida albicans* and *Malassezia furfur* using the disc diffusion method. The stages of the research included extraction by maceration of the Temutis rhizome powder with *n*-hexane solvent, the *n*-hexane extract was then fractionated and purified by vacuum liquid chromatography (KCV) and chromatography centrifuge (chromatotron). The phytochemical test showed that the isolates obtained gave positive results in the terpenoid test. The isolated compounds were then identified using Gas Chromatography Mass Spectrometry (GC-MS). Antifungal activity tests against *C. albicans* and *M. furfur* were carried out on the *n*-hexane extract, fractions and isolated compounds. The results of the GCMS analysis of the isolate fgk1 showed that there were 3 main compounds identified based on literature data, namely methyl hexadecanoic; methyl 9(Z)-octadecenoic and methyl stearate. The most dominant compound was methyl 9(Z)-octadecenoic with a molecular formula of $C_{19}H_{36}O_2$ and a molecular weight of 296. The results of the antifungal test showed that the isolates had antifungal activity against the fungi *C. albicans* and *M. furfur* with inhibition zone values respectively 2,13 mm and 1,42 mm.

Keywords: *Curcuma purpurascens*, *C. albicans*, disc diffusion, GC-MS and *M. furfur*.