

INTISARI

FAUZIAH, D., T., 2016. IDENTIFIKASI DAN SKRINING AKTIVITAS ANTIBAKTERI DAN ANTIJAMUR EKSTRAK ETANOL RIMPANG KUNCI PEPET (*Kaempferia rotunda* L.), TESIS, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA.

Kaempferia rotunda L. merupakan tanaman obat dari famili jahe-jahean yang dikenal dengan sebutan kunci pepet. *Kaempferia rotunda* L. Mengandung banyak senyawa metabolit sekunder diantaranya minyak atsiri, flavonoid, terpenoid yang dapat berfungsi sebagai obat disentri, obat diare dan pelangsing tubuh.

Metode yang digunakan pada pemisahan senyawa yaitu metode maserasi kemudian difraksinasi dengan pelarut *n*-heksan dan diklorometan menggunakan corong pisah. Pengujian aktivitas antibakteri dan antijamur dilakukan dengan difusi agar. Identifikasi kualitatif kandungan metabolit sekunder dilakukan dengan kromatografi lapis tipis.

Daya hambat pada pengujian antibakteri terhadap *Escherichia coli* pada ekstrak, fraksi *n*-heksan, diklorometan dan fraksi air (2,08 cm, 1,37 cm, 1,47 cm, 1,27 cm), *Staphylococcus aureus* pada ekstrak, fraksi *n*-heksan, diklorometan dan fraksi air (2,13 cm, 1,30 cm, 1,30 cm, 1,57 cm), *Candida albicans* pada ekstrak, fraksi *n*-heksan, diklorometan dan fraksi air (1,82 cm, 1,27 cm, 1,50 cm, 1,33 cm). Analisa GCMS dari ekstrak, fraksi *n*-heksan, diklorometan dan fraksi air diperoleh senyawa asam benzoat (8,97%), heksadekana (28,84% dan 33,50%), benzil benzoat (89,21%, 14,71%, 7,23% dan 19,88%), asam benzoat 2-hidroksi phenilmethyl ester (0,90%), asam heksadekanoat (0,92%, 10,10%, 7,04% dan 11,71%), benzil alkohol (12,30%), pentadekana (7,22%), metil ester oktadekanoat (5,43%). Berdasarkan analisa LCMS *K. Rotunda* L. juga mengandung krotepoksida, zeylenol epoksida, zeylenol, dan 6-metil zeylenol.

Kata kunci : Kunci Pepet, Fraksinasi, GC-MS, LCMS.

ABSTRACT

FAUZIAH, D., T., 2016. IDENTIFICATION AND SCREENING ANTIBACTERIAL AND ANTIFUNGI ACTIVITY OF ETHANOL EXTRACT KUNCI PEPET RHIZOME (*Kaempferia rotunda* L.), TESIS, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA.

Kaempferia rotunda L. is a medicinal plant from ginger family which is locally known as kunci pepet. *K. rotunda* L. contains many secondary metabolites including essential oils, flavonoids and terpenoids, which can act as therapy for dysentery, diarrhea, and also for body slim treatment.

The extraction method used in this research was maceration. Then the current extract was further fractionated using n-hexane and dichloromethane. Those fractions were tested for its antibacterial and antifungal activities using agar diffusion method. Identification of the qualitative content of secondary metabolites is carried out by thin layer chromatography (TLC).

Inhibition zones of ethanol extract, hexane, dichloromethane and aqueous fraction against *Escherichia coli* and *Staphylococcus aureus* were 2.08 cm, 1.37 cm, 1.47 cm, 1.27 cm, and 2.13 cm, 1.30 cm, 1.30 cm, 1.57 cm, respectively. The inhibition zones of the crude extract, fractions of n-hexane, dichloromethane and aqueous fraction are 1.82 cm, 1.27 cm, 1.50 cm, 1.33 cm. GCMS analysis of the extract, fraction of n-hexane, dichloromethane and aqueous fractions showed that *K. Rotunda* L., contains benzoic acid (8.97%), hexadecane (28.84% and 33.50%), benzyl benzoate (89.21%, 14.71% , 7.23% and 19.88%), 2-hydroxy benzoic acid ester phenilmethyl (0.90%), heksadekanoat acid (0.92%, 10.10%, 7.04% and 11.71%), benzyl alcohol (12.30 %), pentadekana (7.22%), octadecanoic methyl ester (5.43%). Based on LCMS analysis *K. Rotunda* L. also contains crotepoxide, zeylenol epoxide, zeylenol, and 6-methyl zeylenol

Keyword : Kunci Pepet, Fractionation, GCMS, LCMS.