

INTISARI

NUGRAHANINGRUM, RINA DWI., 2015. UJI AKTIVITAS ANTIJAMUR INFUSA DAUN SIRIH MERAH (*Piper crocatum* Ruiz & Pav), RIMPANG LENGKUAS (*Alpinia galanga* (L.) Willd) DAN KOMBINASI TERHADAP *Candida albicans* ATCC 10231, KTI, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA.

Sirih merah dan lengkuas merupakan tumbuhan obat memiliki daya antijamur terhadap *Candida albicans*. Daun sirih merah dan rimpang lengkuas mengandung senyawa kimia seperti alkaloid, flavonoid, minyak atsiri, saponin dan tanin. Penelitian ini bertujuan untuk mengetahui aktivitas antijamur infusa daun sirih merah dan infusa rimpang lengkuas beserta kombinasi keduanya terhadap *Candida albicans* ATCC 10231.

Metode ekstraksi yang digunakan dalam penelitian ini adalah metode infusa. Hasil infusa yang didapat dianggap memiliki konsentrasi 100%, selanjutnya dilakukan uji aktivitas antijamur terhadap *Candida albicans* ATCC 10231 dengan metode dilusi. Konsentrasi yang digunakan adalah 100%; 50%; 25%; 12,5%; 6,25%; 3,125%; 1,5625%; 0,7812%; 0,3906% dan 0,1953%. Hasil seri dilusi digores ke media Sabouraud Glukosa Agar dengan cara streak. Hasil pertumbuhan pada media Sabouraud Glukosa Agar digunakan untuk menentukan Konsentrasi Bunuh Minimum.

Hasil penelitian ini menunjukkan bahwa infusa daun sirih merah, infusa rimpang lengkuas beserta kombinasi keduanya memiliki aktivitas sebagai antijamur terhadap *Candida albicans* ATCC 10231. Konsentrasi Bunuh Minimum Infusa daun sirih merah, infusa rimpang lengkuas beserta kombinasinya berturut-turut adalah 12,5%; 12,5% dan 50%. Infusa tunggal dari daun sirih merah dan rimpang lengkuas mempunyai aktivitas antijamur lebih optimum terhadap *Candida albicans* ATCC 10231 daripada infusa kombinasi dari keduanya.

Kata kunci : daun sirih merah, rimpang lengkuas, antijamur, *Candida albicans*

ABSTRACT

NUGRAHANINGRUM, RINA DWI, 2015, ANTIFUNGAL ACTIVITY TEST OF RED BETEL (*Piper crocatum* Ruiz & Pav) LEAVES INFUSE AND GALANGAL (*Alpinia galanga* (L.) Wild) RHIZOME ON CANDIDA ALBICANS ATCC 10231, KTI, PHARMACY FACULTY, SETIA BUDI UNIVERSITY, SURAKARTA.

Red betel and galangal is a medicinal plant well-known for its active antifungal activity on *Candida albicans*. Red betel leaves and galangal rhizome contains chemical compounds such as alkaloid, flavonoid, volatile oil, saponin, and tannin. This research aimed to find out the antifungal activity of red betel leaves and galangal rhizome infuses and combination of them on *Candida albicans* ATCC 10231.

The extraction method used in this research was infusion method. The infuse resulting was considered as having 100% concentration, and then antifungal activity test was conducted on *Candida albicans* ATCC 10231 with dilution method. The concentrations used were 100%; 50%; 25%; 12.5%; 6.25%; 3.125%; 1.5625%; 0.7812%; 0.3906% and 0.1953%. The result of serial dilution was smeared on Sabouraud Glucose Agar media with streaking mode. The result of growth on Sabouraud Glucose Agar media was used to determine the Minimum Killing Concentration.

The result of research showed that red betel leaves infuse, galangal rhizome infuse, and combination of them had antifungal activity on *Candida albicans* ATCC 10231. The Minimum Killing Concentrations of leaves infuse, galangal rhizome infuse, and combination of them were 12.5%; 12.5%, and 50%, respectively. A single infuse of leaves and galangal rhizome had more optimum antifungal activity on *Candida albicans* ATCC 10231, than the combination of them.

Keywords: red betel leaves, galangal rhizome, antifungal, *Candida albicans*