UJI AKTIVITAS ANTIJAMUR EKSTRAK ETANOL 50% KAYU SECANG (*Caesalpinia sappan* L.) TERHADAP JAMUR *Candida albicans* MENGGUNAKAN METODE DILUSI

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ABSTRAK

Infeksi jamur kandidiasis yang bersifat oportunistik dan umum disebabkan oleh *Candida cp*. Masyarakat telah memanfaatkan tanaman secang sebagai obat tradisional yang terkonfirmasi menunjukkan adanya potensi antijamur. Tujuan penelitian ini dilaksanakan adalah untuk mengevaluasi aktivitas antijamur ekstrak etanol 50% kayu secang terhadap pertumbuhan jamur *Candida albicans* (*C. albicans*) dengan metode dilusi serta kadar flavonoid total yang mampu menghasilkan efek antijamur. Ekstraksi dengan pelarut etanol 50% dilakukan melalui metode maserasi. Kandungan ekstrak yang diduga memiliki manfaat sebagai antijamur berasal dari flavonoid, alkaloid, saponin, tanin, terpenoid, serta fenolik. Ekstrak konsentrasi 5000 ppm menunjukkan aktivitas KHM dan aktivitas KBM pada konsentrasi di atas 5000 ppm. Nilai kandungan flavonoid totalnya sebesar 28,57 mgQE/g yang berperan dalam mendukung aktivitas antijamur ekstrak. Analisis statistik dengan uji *Fisher's Exact Test* mengindikasikan adanya hubungan antarkelompok perlakuan dengan pertumbuhan jamur berdasarkan data KHM, serta uji ANOVA *Welch* serta uji lanjutan *Post-Hoc Games-Howell* mengindikasikan adanya perbedaan signifikan antarkelompok perlakuan berdasarkan data koloni pada uji KBM (Sig<0,05).

Kata Kunci: Aktivitas Antijamur, *Candida albicans*, Dilusi, Kayu Secang

ANTIFUNGAL ACTIVITY OF 50% ETHANOL EXTRACT OF SECANG WOOD (*Caesalpinia sappan* L.) AGAINST *Candida albicans* USING THE DILUTION METHOD

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ABSTRACT

Frequent opportunistic fungal infections, including those caused by *Candida* species, remain a health issue that requires big attention from people. Tradionally, people have used secang as traditional medicine as an antifungal agent. This research seeks to assess the antifungal properties of secang wood extract using 50% ethanol as a solvent against the growth of *C. albicans* with the dilution method, as well as to examine the TFC involved in its antifungan effect. The second metabolism contents in the extract suspected to contribute to antifungal activity include flavonoids, alkaloids, saponins, tannins, terpenoids, and phenolics. The MIC was observed at an extract concentration of 5000 ppm, while the MFC was only evident at concentrations above 5000 ppm. The amount of total flavonoid content in the extract, which was 28.57 mgQE/g, played a role in supporting the antifungal activity. Fisher's Exact Test revealed a correlation between the treatment groups and fungal growth based on MIC data, Welch ANOVA followed by the Post Hoc Games-Howell tests revealed notable differences between groups based on colony data in the MFC test (Sig<0.05).

Keywords: Antifungal Activity, *Candida albicans*, Dilution, MFC, MIC