PENGARUH JENIS PELARUT EKSTRAKSI ULTRASONIK BIJI LABU KUNING TERHADAP KADAR TOTAL SENYAWA AKTIF DAN AKTIVITAS ANTIJAMUR *Candida albicans*

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Abstrak

Biji labu menunjukkan potensi sebagai agen antijamur terhadap *Candida albicans*, patogen umum penyebab infeksi kandidiasis. Senyawa aktif seperti tanin dan fenol pada biji ini sangat berperan penting karena memiliki sifat antijamur. Ekstraksi senyawa aktif dapat dilakukan dengan pelarut metanol, etil asetat, dan n-heksan. Penelitian ini bertujuan untuk mengevaluasi pengaruh jenis pelarut (metanol, etil asetat, dan n-heksan) dalam ekstraksi ultrasonik terhadap kadar fenol, kadar tanin, dan aktivitas antijamur ekstrak biji labu kuning. Metode penentuan kadar fenol dan tanin dilakukan menggunakan spektrofotometri UV-Vis, dan uji aktivitas antijamur *Candida albicans* menggunakan metode difusi cakram. Ekstrak pelarut metanol menghasilkan kadar total tanin tertinggi yaitu 82,4254±0,00411 mg TAE/100g ekstrak dan kadar total fenol tertinggi yaitu 40,3372±0,00685 mg GAE/100g ekstrak. Pada uji aktivitas antijamur konsentrasi 4000 ppm, ekstrak methanol menunjukkan zona hambat 1,5967±0,1274 mm. Uji *one-way* ANOVA secara statistik menunjukkan perbedaan signifikan pada kadar tanin dan fenol antar perlakuan pelarut ($P<0,05$). Uji korelasi Spearman menunjukkan adanya korelasi positif kuat ($r=0,765$) yang signifikan ($p<0,01$) antara konsentrasi ekstrak dan diameter zona hambat, mengindikasikan potensi yang mungkin lebih terlihat pada konsentrasi yang lebih tinggi.

Kata Kunci: *Candida albicans, Cucurbita maxima,* Fenol, Tanin, Variasi pelarut

THE EFFECT OF ULTRASONIC EXTRACTION SOLVENT TYPE OF PUMPKIN SEEDS ON TOTAL ACTIVE COMPOUND CONTENT AND ANTIFUNGAL ACTIVITY AGAINST Candida albicans

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Abstract

Pumpkin seeds showed potential activity for antifungal agent against Candida albicans, a common pathogen causing candidiasis. Some metabolite such as tannins and phenols in these seeds play a crucial role due to their antifungal properties. These active compounds was extracted using methanol, ethyl acetate, and n-hexane as solvents. This research evaluates the effect of organic solvent type on the phenol and tannin content, also antifungal activity of pumpkin seed extracts obtained by ultrasonic extraction. Phenol and tannin content were determined using UV-Vis spectrophotometry, while the antifungal activity against Candida albicans was tested using the disk diffusion method. The extract obtained with methanol extract obtained the highest total tannin content 82,4254±0,00411 mg TAE/100g extract and the highest total phenol content of 40,3372±0,00685 mg GAE/100g extract. However, at a concentration of 4000 ppm, the methanol extract showed an inhibition zone 1,5967±0,1274 mm. The one-way ANOVA test statistically showed a significant difference in tannin and phenol levels among solvent treatments ($P<0.05$). Spearman's correlation indicated a strong positive and significant correlation ($r=0.765$, $p<0.01$) between extract concentration and inhibition zone diameter, it suggesting that the potential for antifungal activity might be more pronounced at higher concentrations.

***Keywords**: Candida albicans, Cucurbita maxima, Phenol, Tannin, Solvent variation*