

UJI AKTIVITAS BAKTERI ASAM LAKTAT (*Lactobacillus bulgaricus* dan *Streptococcus thermophilus*) YOGHURT DALAM MENGHAMBAT PERTUMBUHAN *Candida tropicalis*

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ABSTRAK

Candida tropicalis merupakan spesies patogen yang masih jarang diteliti. *C.tropicalis* dapat menginfeksi secara superfisial maupun sistemik. *C.tropicalis* menjadi patogen ketiga tersering penyebab kandidiasis vulvovaginalis. Kandidiasis vulvovaginalis termasuk penyakit infeksi menular seksual. Data pusdatin 2013 mengenai kejadian infeksi menular seksual di Kabupaten Banyumas cukup tinggi tercatat 1740 orang. Produk olahan bakteri asam laktat berupa yoghurt diduga dapat menghambat pertumbuhan *Candida*. Yoghurt merupakan susu yang diolah dengan mencampurkan bakteri asam laktat ke dalamnya. Tujuan dari penelitian ini untuk menguji aktivitas bakteri asam laktat (*Lactobacillus bulgaricus* dan *Streptococcus thermophilus*) yoghurt dalam menghambat pertumbuhan *C.tropicalis*. Penelitian ini termasuk penelitian ekperimental *post test-only with control group design*. Kertas cakram Kirby - bauer direndam yoghurt berbagai konsentrasi, lalu diletakkan pada media yang telah ditumbuhkan *C.tropicalis*, dilakukan inkubasi dan diamati diameter zona hambat. Penelitian ini menggunakan 30 sampel yang terbagi menjadi 6 kelompok yaitu kontrol (akuades), dan 5 kelompok perlakuan berupa yoghurt dengan konsentrasi 80%, 85%, 90%, 95%, 100%. Masing- masing kelompok dilakukan duplo. Hasil dari uji parametrik One Way ANOVA menunjukkan perbedaan bermakna antar kelompok dengan nilai $p = 0,000$ ($p < 0,05$). Konsentrasi yoghurt terendah (80%) dapat membentuk zona jernih pertumbuhan *C.tropicalis* sebesar 7,5 mm. Maka dapat disimpulkan bahwa aktivitas bakteri asam laktat (*Lactobacillus bulgaricus* dan *Streptococcus thermophilus*) yoghurt dapat menghambat pertumbuhan *C.tropicalis*.

Kata kunci : Antijamur, bakteri asam laktat, *Candida tropicalis*, *Lactobacillus bulgaricus*, *Streptococcus thermophilus*, yoghurt

**ACTIVITY TEST OF LACTIC ACID BACTERIA (*Lactobacillus bulgaricus*
and *Streptococcus thermophilus*) YOGHURT IN INHIBITING GROWTH OF
*Candida tropicalis***

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ABSTRACT

Candida tropicalis is a pathogenic species which still rarely studied upon. *C.tropicalis* can infect superficially and systemic. *C.tropicalis* is generally described as the third most common causing vulvovaginal candidiasis. Vulvovaginal candidiasis including to sexually transmitted infections. Pusdatin 2013 data regarding the incidence of sexually transmitted disease in Kabupaten Banyumas was quite high, noted 1740 people. Processed products of lactic acid bacteria such as yoghurt expected to inhibit the growth of *Candida*. Yogurt is a processed milk by mixing lactic acid bacteria within its mixture. The study is aimed to examine the activity of lactic acid bacteria (*Lactobacillus bulgaricus* and *Streptococcus thermophilus*) yoghurt in inhibiting the growth of *C.tropicalis*. This research used experimental research post test-only with control group design. Kirby-Bauer paper discs soaked with various concentrations of yoghurt then placed on media which *C.tropicalis* was grown, incubated and inhibition zone is observed. This study use 30 samples which divide into 6 groups, namely control (distilled water), and 5 treatment groups in the form of yogurt with concentrations of 80%, 85%, 90%, 95%, 100%. Each group was duplicated. The results of the One Way ANOVA parametric test show a significant difference between the group, with a value of $p = 0,000$ ($p < 0.05$). The lowest yogurt concentration (80%) can form a clear zone of *C.tropicalis* growth of 7.5 mm. So it can be concluded that the activity of lactic acid bacteria (*Lactobacillus bulgaricus* and *Streptococcus thermophilus*) yoghurt can inhibit the growth of *C.tropicalis*.

Keywords: antifungal, *Candida tropicalis*, lactic acid bacteria, *Lactobacillus bulgaricus*, *Streptococcus thermophilus*, yoghurt