

**UJI AKTIVITAS BAKTERI ASAM LAKTAT (*Lactobacillus bulgaricus*
DAN *Streptococcus thermophilus*) YOGHURT DALAM MENGHAMBAT
PERTUMBUHAN ISOLAT BAKTERI
PENYEBAB AKNE VULGARIS**

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ABSTRAK

Akne vulgaris merupakan bentuk inflamasi kronik dermatosis unit pilosebaceous yang dapat muncul pada bagian tubuh seperti wajah, dada, dan punggung. Salah satu bentuk pencegahan akne vulgaris yaitu penggunaan masker wajah yang berbahan dasar yoghurt. Yoghurt merupakan produk olahan susu fermentasi yang mengandung Bakteri Asam Laktat (BAL) yang dapat menghambat pertumbuhan bakteri patogen seperti bakteri penyebab akne vulgaris. Tujuan penelitian ini untuk mengetahui efek bakteri asam laktat (*Lactobacillus bulgaricus* dan *Streptococcus termophilus*) dalam menghambat pertumbuhan isolat bakteri penyebab akne vulgaris. Metode penelitian ini yaitu *Experimental Design* dengan metode *Posttest-only with Control Group Design*. Sampel yang digunakan sebanyak 30 dibagi dalam 10 kelompok perlakuan yaitu 0% (sebagai kontrol), 5%, 10%, 15%, 20%, 25%, 30%, 35%, 40%, dan 45%. Semua kelompok dibandingkan dengan kelompok 0% (kelompok kontrol). Analisis data untuk mengetahui perbedaan bermakna menggunakan Uji *One Way ANOVA* dan dilanjutkan dengan Uji *Post-Hoc Bonferroni*. Hasil Uji *One Way ANOVA* menunjukkan perbedaan signifikan masing-masing konsentrasi. Hasil Uji *Post-Hoc Bonferroni* menunjukkan perbedaan bermakna, pada konsentrasi 5% presentase penghambatan 99.97%, konsentrasi 10% presentase penghambatan 99.97%, konsentrasi 15% presentase penghambatan 99.98%, konsentrasi 20% presentase penghambatan 99.99%, konsentrasi 25% presentase penghambatan 99.99%, konsentrasi 30% presentase penghambatan 99.99%, konsentrasi 35% presentase penghambatan 99.99%, konsentrasi 40% presentase penghambatan 99.99%, dan konsentrasi 45% presentase penghambatan 99.99%. Kesimpulan penelitian ini adalah BAL (*Lactobacillus bulgaricus* dan *Streptococcus thermophilus*) pada yoghurt dapat menghambat pertumbuhan isolate bakteri penyebab akne vulgaris dengan konsentrasi hambat minimum (KHM) adalah 5%.

Kata Kunci: Bakteri Asam laktat, yoghurt, bakteri penyebab akne vulgaris, akne vulgaris, KHM.

**ACTIVITY TEST OF YOGHURT LACTIC ACID (*Lactobacillus bulgaricus*
AND *Streptococcus thermophilus*) BACTERIA IN SUPPRESSING THE
GROWTH OF ACNE VULGARIS CAUSATIVE BACTERIA**

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ABSTRACT

*Acne vulgaris is a chronic pilosebaceous dermatosis that appear on parts of body such as the face, chest, and back. One preventive way of acne vulgaris appearance is the use of face masks made from yogurt. Yogurt is a processed fermented milk product contains Lactic Acid Bacteria (LAB) which inhibits the growth of pathogenic bacteria including the causative bacteria of acne vulgaris. The aim of the study was to find out the effect of lactic acid bacteria (*Lactobacillus bulgaricus* and *Streptococcus termophilus*) inhibition towards the growth of acne vulgaris causative bacteria. The study was conducted using Experimental Design with Posttest-only method with Control Group Design. The samples used were 30 divided into 10 groups consisting of 0% (as a control), 5%, 10%, 15%, 20%, 25%, 30%, 35%, 40%, and 45%. All groups were compared to the 0% group (control group). One Way ANOVA test results showed significant differences in each concentration. Bonferroni Post-Hoc Test results showed a significant result, at a concentration of 5% the inhibition percentage is 99.97%, at concentration 10%, inhibition percentage 99.97%, concentration 15% inhibition percentage 99.98%, concentration 20% percentage inhibition 99.99%, concentration of 25% inhibition percentage 99.99%, concentration 30% inhibition percentage 99.99%, concentration 35% percentage inhibition 99.99%, concentration 40% percentage inhibition 99.99% and concentration 45% inhibition 99.99% . The conclusion shows LAB (*Lactobacillus bulgaricus* and *Streptococcus thermophilus*) on yogurt inhibited the growth of acne vulgaris causative bacteria with 5% of Minimum inhibitory concentration (MIC).*

Kata Kunci: *Lactaic acid bacteria, yoghurt, causative bacteria of acne vulgaris, acne vulgaris, MIC*