

**UJI AKTIVITAS ANTIHIPERKOLESTEROLEMIA PADA
MINUMAN PROBIOTIK *YOGHURT* BEKATUL
TERHADAP MENCIT (*MUS MUSCULUS L.*)**

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ABSTRAK

Tingginya angka penyakit yang diakibatkan kolesterol tinggi di Indonesia dan dunia semakin meningkat seiring dengan kurangnya kesadaran gaya hidup sehat seperti konsumsi makanan tinggi lemak, kurang olahraga, dan kurangnya konsumsi serat harian. Sedangkan obat yang beredar di pasaran diketahui memiliki efek samping jangka panjang seperti mempengaruhi fungsi hati dan meningkatkan tekanan darah. Kandungan serat dan senyawa bioaktif pada *yoghurt* bekatul diduga memiliki efek antihiperkolesterolemia. Penambahan ekstrak bekatul pada *yoghurt* yang mengandung bakteri asam laktat dapat menambah manfaat produk dan menjadi pangan fungsional penurun kadar kolesterol tinggi dalam darah. Penelitian ini bertujuan untuk mengetahui pengaruh *yoghurt* bekatul dengan variasi dosis konsentrasi terhadap kadar kolesterol total mencit. Metode yang digunakan adalah eksperimental menggunakan hewan uji mencit dengan kelompok kontrol (positif dan negatif) dan kelompok perlakuan *yoghurt* bekatul dengan variasi dosis *yoghurt* bekatul P1 (0,2 ml); P2 (0,3 ml); P3 (0,4 ml) / 20gram BB. Mencit diinduksi asupan kuning telur puyuh selama 14 hari untuk mencapai keadaan hiperkolesterol. Kadar kolesterol total setelah pemberian pakan hiperkolesterol memiliki hubungan cukup kuat dengan kenaikan berat badan mencit. Selanjutnya pemberian perlakuan *yoghurt* bekatul dilakukan selama tujuh hari. Hasil penelitian menunjukkan variasi *yoghurt* bekatul memiliki pengaruh yang nyata terhadap penurunan kadar kolesterol total mencit. Dosis P3 0,4 ml/20 gram BB memberikan efek penurunan kolesterol total terbaik pada mencit yaitu sebesar 26,57% bahkan lebih besar dari obat simvastatin 0,1 ml/20 gram BB dengan presentase penurunan 25,16 %. Sehingga *yoghurt* bekatul dapat dijadikan alternatif pengobatan dan pangan fungsional untuk menurunkan hiperkolesterolemia. Dosis optimal untuk manusia setelah dikonversi dari dosis mencit adalah 183,85 ml/hari.

Kata kunci : *Yoghurt* Bekatul, Probiotik, Antioksidan, Kolesterol, Mencit

**ANTIHYPERCHOLESTEROLEMIA ACTIVITY TEST
ON BRAN YOGHURT PROBIOTIC DRINK
IN MICE (*MUS MUSCULUS L.*)**

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ABSTRACT

The number of diseases caused by high cholesterol is increasing in Indonesia and around the world, coupled with the lack of understanding of healthy lifestyles, such as the consumption of high-fat meals, lack of physical activity, and lack of daily fiber intake. While it is known that many medications on the market have long-term negative effects, such as altering liver function and elevating blood pressure, there are few alternatives. Rice bran *yogurt* is believed to have an antihypercholesterolemia effect due to the presence of fiber and bioactive components. The addition of bran extract to *yogurt* containing lactic acid bacteria can increase the product's health advantages and transform it into a functional food for decreasing blood cholesterol levels. This research intends to assess the effect of various concentrations of rice bran *yogurt* on the total cholesterol levels of mice. The approach employed experimental mice with a control group (positive and negative) and a treatment group with rice bran *yogurt* with varied doses of rice bran *yogurt* P1 (0.2 ml); P2 (0.3 ml); and P3 (0.4 ml) / 20gram of body weight. Hypercholesterolemia was established in mice by feeding them quail egg yolks for 14 days. The correlation between total cholesterol levels after feeding hypercholesterolemia and weight increase in mice is substantial. Furthermore, the treatment of rice bran *yogurt* was carried out for seven days. The results showed that the variation of rice bran *yogurt* had a significant effect on reducing total cholesterol levels in mice. The P3 dose of 0.4 ml/20 grams of body weight produced the greatest overall cholesterol-lowering impact in mice, 26.57 %, which was more than simvastatin's 25.16 % reduction at 0.1 ml/20 grams of body weight. In order for bran *yogurt* to be a viable alternative treatment and functional diet for lowering blood cholesterol levels. The best dose for humans, converted from the dose for mice, is 183.85 ml per day.

Keywords : Bran Yogurt, Probiotics, Antioxidants, Cholesterol, Mice