

KARAKTERISTIK KIMIA PADA SUPLEMEN BUBUK PROBIOTIK MULTISTRAIN

INTISARI

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Probiotik merupakan mikroorganisme yang dikonsumsi dalam kondisi hidup dengan jumlah yang cukup serta mampu berkembang biak dalam saluran pencernaan manusia dan membawa manfaat kesehatan. Salah satu aplikasi probiotik adalah sebagai suplemen bubuk probiotik. Suplemen bubuk probiotik dapat menggunakan beberapa strain dari probiotik atau bisa disebut multistrain, seperti *Lactiplantibacillus plantarum* subsp. *plantarum* Dad-13, *Lactiplantibacillus plantarum* subsp. *plantarum* FNCC-0250 (Mut-7), dan *Lacticaseibacillus paracasei* subsp. *paracasei* GMRMP-001 (AD2). Suplemen probiotik multistrain merupakan produk yang masih baru sehingga perlu dilakukan uji untuk mengetahui karakteristik kimia, yaitu kadar air, abu, protein, lemak, karbohidrat, total gula, gula reduksi, kolesterol, dan laktosa untuk keperluan pembuatan label. Pada penelitian ini dilakukan pembuatan bubuk dari masing-masing strain terlebih dahulu kemudian diformulasi menjadi multistrain dan kemudian dikemas dengan kapsul. Berdasarkan hasil penelitian, didapatkan hasil kadar air 9,4 mg; kadar abu 18,2 mg; kadar protein 74,5 mg; kadar karbohidrat 147,9 mg; kadar lemak 0 mg; kadar gula total 94 mg; kadar gula reduksi 55,1 mg; kadar laktosa 37,2 mg; dan kadar kolesterol 1,4 mg pada 250 mg produk atau satu kapsul.

Kata kunci: probiotik, suplemen bubuk, multistrain, karakteristik kimia

CHEMICAL CHARACTERISTIC IN MULTISTRAIN PROBIOTIC POWDER SUPPLEMENT

ABSTRACT

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Probiotics are microorganisms that are consumed in living conditions in sufficient quantities and able to reproduce in the human digestive tract and bring health benefits. One of the applications of probiotics is as a probiotic powder supplement. Probiotic powder supplements may use several strains of probiotics or may be called multistrains, such as *Lactiplantibacillus plantarum* subsp. *plantarum* Dad-13, *Lactiplantibacillus plantarum* subsp. *plantarum* FNCC-0250 (Mut-7), and *Lacticaseibacillus paracasei* subsp. *paracasei* GMRMP-001 (AD2). Multistrain probiotic supplements are a brand new product that requires testing for chemical characteristics such as water, ashes, proteins, fats, carbohydrates, total sugar, reduction sugar, cholesterol, and lactose for labelling purposes. In this study, the powder was made from each strain first, then formulated into a multistrain and then packed with capsules. Based on the results of the study, the result was a water content of 9,4 mg; ash content of 18,2 mg; protein content of 74,5 mg; carbohydrate content of 147,9 mg; fat content of 0 mg; total sugar content of 94 mg, reduction sugar level of 55,1 mg; lactose content of 37,2 mg; and cholesterol level of 1,4 mg on 250 mg of product or a capsule.

Key words: probiotics, powder supplement, multistrain, chemical characteristics