

## **PENGARUH KONSENTRASI HIDROLISAT KOLAGEN TERHADAP SIFAT SENSORIS DAN FISIKOKIMIA BUBUK MINUMAN FUNGSIONAL PREBIOTIK**

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### **INTISARI**

**Latar Belakang:** Peningkatan minat masyarakat terhadap pangan fungsional menciptakan peluang dalam pengembangan produk pangan fungsional yang dapat memberikan manfaat kesehatan dan dapat diterima secara organoleptik. Kolagen ikan dan prebiotik termasuk komponen pangan yang berpotensi sebagai imunomodulator. Namun, produk pangan berbasis kolagen ikan dan prebiotik yang bertujuan untuk meningkatkan imunitas dan kesehatan tubuh belum banyak dikembangkan.

**Tujuan:** Mengembangkan produk minuman fungsional yang mengandung hidrolisat kolagen ikan dan prebiotik yang akan dikarakterisasi sifat sensoris dan fisikokimianya.

**Metode Penelitian:** Bubuk minuman kolagen prebiotik diformulasikan dalam 3 perlakuan dengan variasi konsentrasi hidrolisat kolagen ikan 12,5% (formula A), 25% (formula B), dan 50% (formula C). Pengujian yang dilakukan meliputi analisis sifat fisikokimia (pH, viskositas, kelarutan, dan kandungan gizi), uji sifat sensoris (kejernihan dan citarasa khas kolagen), dan uji hedonik.

**Hasil:** Berdasarkan sifat organoleptik, formula A mempunyai intensitas kejernihan tertinggi serta rasa dan kesan keseluruhan yang paling disukai. Tidak ada perbedaan intensitas rasa khas kolagen dan tingkat kesukaan terhadap warna, aroma, dan kekentalan ketiga formula. Berdasarkan sifat fisikokimia, formula C memiliki nilai pH dan kadar protein tertinggi, sedangkan formula A memiliki kadar karbohidrat tertinggi. Tidak ada perbedaan viskositas, kelarutan, kadar air, dan kadar abu pada ketiga formula.

**Kesimpulan:** Minuman formula A (12,5% kolagen) memiliki sifat organoleptik terbaik, tetapi minuman formula C (50% kolagen) memiliki kadar protein tertinggi.

**Kata Kunci:** minuman kolagen; prebiotik; sifat fisikokimia; uji sensoris; kandungan gizi

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## THE EFFECT OF HYDROLYZED COLLAGEN CONCENTRATION ON SENSORY AND PHYSICOCHEMICAL PROPERTIES OF PREBIOTIC FUNCTIONAL DRINK POWDER

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### ABSTRACT

**Background:** The increased community interest in functional food creates opportunities for the development of functional food products that can provide health benefits and are organoleptically acceptable. Fish collagen and prebiotics are food components that have the potential as immunomodulators. However, food products based on fish collagen and prebiotics that aim to increase immunity and health have not been widely developed.

**Objective:** This study aims to develop a functional beverage product that contains hydrolyzed fish collagen and prebiotic which are characterized by their sensory and physicochemical properties.

**Methods:** The collagen-prebiotic drink powder was formulated in 3 formulas with various concentrations of hydrolyzed collagen 12.5% (formula A), 25% (formula B), and 50% (formula C). The test conducted included analysis of physicochemical properties (pH, viscosity, solubility, and nutritional content), sensory properties tests (clarity and distinctive taste of collagen), and hedonic tests.

**Results:** Based on the organoleptic properties, formula A has the highest intensity of clarity and has the most favorable taste and overall impression. There was no difference in the intensity of the distinctive taste of collagen and the preference for the color, aroma, and viscosity. Based on the physicochemical properties, formula C has the highest pH value and protein content, while formula A has the highest carbohydrate content. There was no difference in viscosity, solubility, water content, and ash content.

**Conclusion:** Formula A (12.5% collagen) has the best organoleptic properties, but formula C (50% collagen) has the highest protein content.

**Key Words:** *collagen beverages, prebiotic, physicochemical properties, sensory analysis, nutritional content*

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