Analisis Proksimat, Antioksidan, dan Tingkat Kesukaan *Cookies* Mocaf dengan Tepung Bawang Dayak (*Eleutherine Palmifolia*) "MODA"

Debora Christin Ririmasse[1], Fillah Fithra Dieny[1], Nuryanto[1], Etika Ratna Noer[1]

ABSTRAK

Latar Belakang: Konsumsi antioksidan penting untuk melindungi sel tubuh dari kerusakan akibat radikal bebas dari dalam maupun luar tubuh. *Cookies* MODA merupakan inovasi *cookies* tinggi antioksidan yang berbahan dasar tepung bawang dayak yang kaya akan antioksidan, serta tepung mocaf yang berindeks glikemik rendah. Produk ini ditujukan bagi masyarakat yang berisiko mengalami stress oksidatif seperti penderita kanker, penyakit kardiovaskuler, dan DM.

Tujuan: Penelitian ini bertujuan untuk menganalisis aktivitas antioksidan, kandungan proksimat, dan tingkat kesukaan produk *cookies* MODA.

Metode: Penelitian eksperimental menggunakan rancangan acak lengkap dengan variasi perbandingan tepung mocaf dan tepung bawang dayak; F1 (80% :20%), F2 (75% : 25%), F3 (70% : 30%). Kandungan karbohidrat dihitung menggunakan metode *by difference*, protein menggunakan metode Kjeldahl, lemak menggunakan metode hidrolisis soxhlet, air dan abu menggunakan metode oven, dan antioksidan menggunakan metode DPPH. Kandungan karbohidrat dan tingkat kesukaan dianalisis menggunakan uji Kruskal-Wallis. Kandungan protein, lemak, abu, air, dan antioksidan dianalisis menggunakan uji ANOVA. Formula terbaik dianalisis menggunakan metode *Simple Additive Weighting*.

Hasil: C*ookies* MODA (per 100 gram) memiliki kandungan air sekitar 2,87-3,87%, abu 2,48-2,90%, lemak 26,82-28,47%, protein 3,80-4,20%, karbohidrat 56,14-57,46%, dan antioksidan 23,81-34,27%. Perbedaan kandungan tepung bawang dayak dalam tiap formula tidak berpengaruh terhadap daya terima warna (p=0,370), tekstur (p=0,174) dan aroma (p=0,631), namun berpengaruh terhadap rasa (p=0,564).

Simpulan: Formulasi terbaik *cookies* MODA adalah F1 (80% : 20%) dengan kandungan antioksidan sebesar 23,81%. Kadar air, abu, dan lemak semua formulasi *cookies* MODA memenuhi syarat SNI.

Kata Kunci: Antioksidan, Bawang Dayak, *Cookies*, Proksimat

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[1]Program Studi Gizi, Fakultas Kedokteran, Universitas Diponegoro, Semarang

Analysis of Proximate, Antioxidant Activity, and Preference Level of Cookies with of Dayak Onion Flour (*Eleutherine Palmifolia*) "MODA"

Debora Christin Ririmasse[1], Fillah Fithra Dieny[1], Nuryanto[1], Etika Ratna Noer[1]

ABSTRACT

Backgroud: Antioxidant consumption is essential to protect cells from the destructive effects of free radicals sourced both from inside and outside the body. MODA cookie is an innovative cookie made from antioxidant-rich Dayak onion flour and low glycemic index modified cassava flour (mocaf). This product is made for people with high oxidative stress risk, including patients with cancer, cardiovascular disease, and diabetes mellitus.

Objective: This study is aimed to analyze the antioxidant activity, proximate content, and preference level of MODA cookies.

Methods: This experimental research uses a completely randomized design with 3 different ratios of mocaf and Dayak onion flour; F1 (80% : 20%), F2 (75% : 25%), and F3 (70% : 30%). Carbohydrate content was calculated using by difference method, protein using the Kjeldahl method, fat using the Soxhlet hydrolysis method, water and ash using the oven method, and antioxidants using the DPPH method. Carbohydrate content and preference level were analyzed using the Kruskal-Wallis test. Protein, fat, ash, water, and antioxidants content were analyzed using the ANOVA test. The best formula was analyzed using the Simple Additive Weighting method.

Results: The content of each 100 gram MODA cookie was 2.87-3.87% water, 2.48-2.90% ash, 26.82-28.47% fat, 3.80-4.20% protein, 56.14-57.46% carbohydrates, and 23.81-34.27% antioxidants. The difference in dayak onion flour content in each formula had no effect on color acceptability (p=0.370), texture (p=0.174), and aroma (p=0.631), but had an effect on taste (p=0.564).

Conclusions: The best MODA cookie formula was F1 (80% : 20%), with 23,81% antioxidant content. The content of water, ash, and fat in all formulas has met the requirements of the Indonesian National Standard (SNI).

Keywords: Cookies, Dayak Onion, Proximate, Antioxidant

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[1]Program Studi Gizi, Fakultas Kedokteran, Universitas Diponegoro, Semarang