Evaluation of Scenedesmus obliquus Carotenoids as Food Colorants, and Antioxidant Activity in Functional Cakes

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Abstract : Microalgae Scenedesmus obliquus, the carotenoides (astaxanine and β -caroteine) were identified as the major bioactive constituents. In this work we prepared functional pre-biotic cakes to increase general mental health. Functional cakes were formulated by adding algal caroteinods at 2 and 4 mg/100g to flower and the cakes were storage for 20 days. Oxidative stability of both function cakes products were examined during storage periods by DPPH and TBA assays, and the results revealed that both values in function food products were significantly much low than that in untreated food products. Data of sensory evaluation revealed that treated biscuit and cakes with algae or algae extracts were significantly acceptable as control for main sensory characteristics (colour, odour/aroma, flavour, texture, the global appreciation, and overall acceptability). Thus, it could be concluded that functional biscuits and cakes (very popular and well balanced nutritional food) had good sensory and nutritional profiles and can be developed as new niche food market.

Keywords : Scenedesmus obliquus, carotenoids, functional cakes antioxidant, nutritional profiles

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