عنوان مقاله:

Biochemical and Physiological Characterization of Tree Microalgae spp. as Candidates for Food Supplement

محل انتشار:

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خلاصه مقاله:

With increasing world populations, production of cost-effective and proper nourishment sources that can rapidly produce large amounts of nutritional value are needed. Microalgae are publicly used as nutrient supplement. In this research a screening of endemic potent microalgae was carried out. Chlorella, Scenedesmus and Spirulina sp. were isolated and purified and cultivated in liquid proper medium. Regarding to this, amino acid and fatty acid profiles, biochemical characters, antioxidant and antimicrobial and anticancer properties of experimented microalgae were evaluated by HPLC, GC, spectrophotometry, DPPH, MIC and MTT Assay respectively. The results showed highest content of total protein in Spirulina sp.1 (46.08 ppm) and total carbohydrates in Chlorella sp. (48.01 ppm). Antioxidant content was detected in mentioned microalgae. Cytotoxic effect of aqueousextract on L929 cells showed 10 mg/mL had highest effect on these cells. According to the results, Chlorella spp. and Spirulina spp.1 are better candidates for food supplement.

کلمات کلیدی:

Bioactive Metabolites, Carbohydrate, Microalgae, Nourishment, Protein