

Microalgae as biofactories of EPA and DHA production: A promising approach

Production of high value products Eicosapentaenoic acid (20: 5) and Decosahexaenoic acid (22: 6) (Omega-3 [(n-3)] long-chain PUFA) from microalgae. Commercially produced as a nutritional supplement and applied in prevention of cardiovascular and neurodegenerative diseases. Microalgae as primary producer have potent ability to store EPA and DHA and reduce excess demand from fish stock. Research focus is on developing novel process strategies to maximize algal biomass, optimization of bioprocess parameters to enhance intracellular EPA and DHA content and to improve efficiency of extraction techniques.