Abstract

We studied fatty acids (FAs) profiles in six carotenoid-producing yeast species isolated from temperate aquatic environments in Patagonia. Total FAs ranged from 2 to 15% of dry biomass. Linoleic, oleic, palmitic and α-linolenic acids were the major FAs constituents, which accounted for as much as 40%, 34%, 13% and 9% of total FAs, respectively. The proportion of each FA varied markedly depending on the taxonomic affiliation of the yeast species and on the culture media used. The high percentage of polyunsaturated fatty acids (PUFAs) found in Patagonian yeasts, in comparison to other yeasts, is indicative of their cold-adapted metabolism. Our results suggest that Patagonian yeasts may be considered an interesting source of essential PUFAs.

Keywords

native yeasts, Patagonia, carotenoids, lipids, fatty acids.