

Influence of the composition of the nutrient medium on the biosynthesis of lipase by yeasts *Yarrowia lipolytica*

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Abstract

Conditions for biosynthesis of lipase by yeasts *Yarrowia lipolytica* Y-3153 were studied. It is established that inorganic sources of nitrogen are not used by the culture for growth and lipase production. It was determined that good sources of nitrogen to the crop are peptone, untrimmed and defatted soy flour. The optimal concentration of sources of nitrogen was obtained. It was demonstrated that the introduction of tween-20 in the composition of the culture medium increases the lipase activity of the culture. It is established that the maximum activity of the enzyme appeared on the following nutrient medium: olive oil – 1%; glucose – 5 g/l; yeast extract – 5 ml/l; defatted soy-bean flour – 40 g/l; tween-20 – 0.001 mg/ml. cultivation temperature being 30°C and biosynthesis duration – 24 hours.