

Submerged Fermentation Studies of β –D – Fructofuranoside from environmental isolates of *Saccharomyces cerevisiae*

Jayalakshmi K¹, Nirmala P^{2*}

¹Dept of Microbiology, Prince Shri Venkateshwara Arts and science college, Gowrivakkam, Chennai -73, Tamilnadu, India.

²PG and Research Department of Microbiology, Mohamed Sathak College of Arts and Science, Chennai – 600119, Tamilnadu, India.

*Corresponding author e.mail: nirmala_dineshkumar@yahoo.com

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Post Graduate & Research Department of Biochemistry, Mohamed Sathak College of Arts & Science, Sholinganallur, Chennai-600119, India. 24th & 25th January 2018.

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ABSTRACT

Enzymes are the biocatalyst which accelerates the biochemical reactions. B-D-Fructofuranosidase (Invertase) hydrolyses sucrose and produces two equimolar mixtures of glucose and fructose (Invert sugar). It is produced from wide variety of microbial, animal or plant sources. Most enzyme production relies on microbial source. The increasing demand for invertase has stimulated its production from microbial sources. Most microbial enzymes are produced by aerobic submerged fermentation which allows greater control of growth factors, it gives greater yields, requires less man power and environmental friendly. In the present study invertase producing yeast *Saccharomyces cerevisiae* was isolated from various environmental sources like fruits, curd, soil, etc., by using serial dilution and plating procedure on SDA. Submerged fermentation was carried out in SYP broth. Enzyme production was screened and assayed by Millers method. Maximum producer was further grown in controlled environmental and nutritional conditions. Produced enzyme is used for further studies of characterization and purification. Purified enzyme is having wide variety of applications in food, confectionaries (as sweetener, preservative), pharmaceuticals (sweeteners for diabetic individuals, used in digestive tablets) and in industries (lactic acid, ethanol production).