Optimization of culture media for the production of β -glucan by *Saccharomyces cerevisiae* JUL3

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Abstract

The β -glucan is one of the most abundant polysaccharides in the yeast cell wall and is present as a homopolymer of glucose linked through either β -(1,3)- or β -(1,6)-D-glycosidic bonds. β -Glucan shows a variety of biological activities (immunoadjuvants, antitumor, radioprotective agents, etc.). The primary use of β -glucan isolated from the cell wall of yeast is to enhance the immune system. Saccharomyces cerevisiae JUL3 producing highly branched β -glucan was developed through UV mutagenesis and Laminarinase resistance. In this study, medium optimization was performed by using statistical method for the production of β -glucan by S. cerevisiae JUL3.

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