

酵母菌杂交育种. 酵母菌麦芽糖发酵等效异位基因系的遗传分析

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摘要 用啤酒酵母及卡尔斯伯酵母研究麦芽糖发酵等效异位基因, 对啤酒酵母与薛氏酵母的杂种后代进行一系列杂交, 结果证明啤酒酵母含有3个等效异位基因MALA, MALB及MALC基因(暂定名, 因未与标准MAL基因鉴定), 而薛氏酵母不含任一MAL基因, 故为隐性菌株。在卡尔斯伯酵母与球形酵母杂交试验中, 发现卡尔斯伯酵母只含有1个MAL6基因, 证实了Wiiige等人的工作。

关键词

分类号

HYBRIDIZATION AND SELECTION OF YEASTS II. GENETIC ANALYSIS OF POLYMERIC GENES FOR MALTOSE FERMENTATION IN SACCHAROMYCES

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Abstract

Genetic studies on polymeric genes for maltose fermentation were undertaken employing two species of Saccharomyces: *Sacch. cerevisiae* and *Sacch. carlsbergensis*.

Through an extended series of hybridization involving the progeny of the hybrid *Sacch. cerevisiae* and *Sacch. chevdieri*, it was shown that three polymeric genes for maltose fermentation, MALA, MALB and MALC (not yet identified with standard MAL genes), exist in first-named Species, while the latter species lacks these genes and is therefore recessive.

By crossing *Sacch. carlsbergensis* with *Sacch. globosus*, we found that *Sacch. carlsbergensis* possesses only one gene for maltose fermentation, MAL6, which Winge et al. had assumed to be present.

These four genes for maltose fermentation were proved to be individual and nonlinked.

Key words

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