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Method for the identification of Saccharomyces cerevisiae and Kluyveromyces lactis

酿酒酵母和乳酸克鲁维酵母的鉴定方法

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Foreword

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1 Scope

China's national method for identifying Saccharomyces cerevisiae and Kluyveromyces lactis. It specifies the characteristics of the two species and the procedure for distinguishing them. Both are industrial yeasts and both are used as production organisms rather than as contaminants, which is why they need a positive identification method rather than a detection one. S. cerevisiae is the yeast of baking, brewing and wine, and increasingly the host organism for recombinant protein and metabolite production; K. lactis is used to make lactase for the dairy industry and as an expression host of its own, and it differs in the property that names it - it ferments lactose, which S. cerevisiae cannot. Confirming which organism is in a production culture matters for regulatory filings, for strain deposit and for detecting the substitution or drift that can occur over many generations of an industrial culture.

3 Nucleic acid extraction and purification method for detection of genetically modified products

2 Normative references

The contents of the following documents constitute essential provisions of this document through normative references in the text: Among them, dated citations documents, only the version corresponding to that date applies to this document; for undated references, the latest edition (including all amendments) applies to this document: GB 4789:

GB/T 6682-2008 Specifications and test methods for water used in analytical laboratories GB/T 19495:

3 Terms and Definitions

There are no terms and definitions that need to be defined in this document:

4 Abbreviations

The following abbreviations apply to this document: bp: base pair DDBJ: DNA Data Bank of Japan DNA: deoxyribonucleic acid dATP: deoxyadenosine triphosphate (deoxy-adenosinetriphosphate) dCTP: deoxy-cytidine triphosphate dGTP: deoxy-guanosine triphosphate dNTP: Deoxy-ribonucleosidetriphosphate (deoxy-ribonucleosidetriphosphate) dTTP: deoxy-thymidine triphosphate (deoxy-thymidinetriphosphate) dUTP: deoxyuridine triphosphate (deoxy-uridinetriphosphate) EB: Ethidium bromide (Ethidiumbromide) EDTA: ethylenediaminetetraacetic acid EMBL: The European Molecular Biology Laboratory (The European Molecular Biology Laboratory) PCR: polymerase chain reaction (polymerase chain reaction) Taq: Thermus aquaticus (thermusaquaticu)