

MUTANT XYLANASE, MANUFACTURING METHOD AND USE THEREFOR, AND METHOD FOR MANUFACTURING SACCHARIFIED LIGNOCELLULOSE

ABSTRACT

What is aimed at is provision of an inexpensive and efficient saccharification method for lignocellulose using a thermostable xylanase and provision of a mutant xylanase that has a substitute amino acid residue, and that exhibits stable activity even under severe conditions in which enzymes easily inactivate, and that provides an initial rate of reaction not significantly reduced as compared to a wild-type xylanase corresponding to the mutant xylanase.

Provided is a method of producing a saccharified product of lignocellulose, including contacting a lignocellulosic raw material with a thermostable xylanase, and a mutant xylanase that provides an initial rate of reaction that is at least 70% of that provided by a wild-type xylanase corresponding thereto, that has a xylanase activity after heat treatment at 50 °C for 24 hours that is at least 50% of its xylanase activity before the heat treatment, and that has a substitute amino acid residue.

(No Suitable Figures)