

β -Mannanase 26B, *Clostridium thermocellum*

CtMan26B (GH26)

Catalogue number	Presentation
CZ00251	1 mg
CZ00252	3 x 1 mg

Description

β -Mannanase 26B (CtMan26B), assigned the E.C. number 3.2.1.78, is a derivative of *Clostridium thermocellum*. It is an endo-1,4- β -mannanase. The recombinant CtMan26B, purified from *Escherichia coli*, is a single-domain Glycoside Hydrolase family 26 (GH26) enzyme (see more details at www.cazy.org). The protein is supplied in a solution containing 35 mM NaHepes buffer (pH 7.5), 750 mM NaCl, 200 mM Imidazole, 3.5 mM CaCl₂, and 25% (v/v) glycerol, at a concentration of 1 mg/mL. Bulk quantities of this product can be made available upon request. To place an order, simply visit our website. We offer fast and secure shipping worldwide.

Electrophoretic Purity

The molecular integrity and purity of CtMan26B (GH26) were evaluated using sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE), followed by BlueSafe staining (MB15201) (Figure 1).

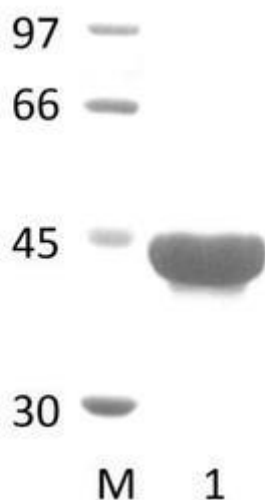


Figure 1. SDS-PAGE analysis of CtMan26B (GH26) was conducted in (Lane 1), employing a 14% polyacrylamide gel. The enzyme exhibits a band corresponding to a molecular weight of approximately 40,53 kDa. Lane M contains a Protein Marker for reference.

Storage temperature

The protein should be stored at -30°C to -15°C in a constant temperature freezer. The protein will remain stable till the expiry date if stored as specified.

Substrate specificity

CtMan26B (GH26) hydrolyses galactomannans (carob and locust-bean) and ivory nut mannan.

Temperature and pH optima

The enzyme exhibits optimal activity within a pH range of 6.0-8.0 and at a temperature of 65°C. Maximal enzymatic activity is achieved at pH 7 and a consistent temperature of 65°C.

Specific activity

CtMan26B (GH26) specific activity is 1500 U/mg, using galactomannan as substrate.

Enzyme activity

Substrate specificity and kinetic properties of CtMan26B (GH26) are detailed in the referenced publication provided below. To perform enzyme assays and determine specific activity values, adhere to the methodology outlined in the cited paper(s).

Reference

Kurokawa *et al.* (2001) *Biosc. Biotechnol. Biochem.* 65, 548-554.

Customer Support

Our dedicated customer support team is always ready to assist you with any questions or technical issues you may have. Reach us via email at info@nzytech.com.

Quality control assay

Protein purity is determined to be $\geq 90\%$, as assessed by SDS-PAGE and subsequent BlueSafe staining (MB15201).

For life science research only. Not for use in diagnostic procedures.