

## Cellulase 8A, Mini-Cellulosome, *Clostridium thermocellum*

### CtCel8A (3×GH8 + Coh-CBM3-Coh-Coh)

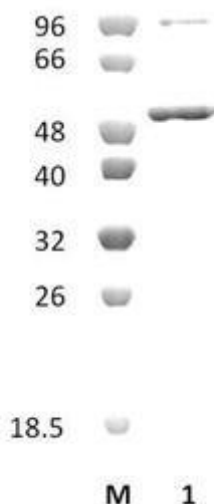
Catalogue number	Presentation
CZ00661	0.5 mg
CZ00662	3 x 0.5 mg

#### Description

Cellulase 8A, Mini-Cellulosome (CtCel8A), assigned the E.C. number 3.2.1.4, is a derivative of *Clostridium thermocellum*. It is a mini-cellulosome containing 3 endo-1,4- $\beta$ -glucanases and a family 3 CBM. The recombinant CtCel8A, purified from *Escherichia coli*, is a modular Glycoside Hydrolase family 8 (3×GH8 + Coh-CBM3-Coh-Coh) enzyme (see more details at [www.cazy.org](http://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 CaCl<sub>2</sub>, and 25% (v/v) glycerol, at a concentration of 0.5 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 CtCel8A (3×GH8 + Coh-CBM3-Coh-Coh) were evaluated using sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE), followed by BlueSafe staining (MB15201) (Figure 1).



**Figure 1.** SDS-PAGE analysis of CtCel8A (3×GH8 + Coh-CBM3-Coh-Coh) was conducted in (Lane 1), employing a 14% polyacrylamide gel. The enzyme exhibits a band corresponding to a molecular weight of approximately 48 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

CtCel8A (3×GH8 + Coh-CBM3-Coh-Coh) hydrolyses a variety of cellulosic substrates.

#### Temperature and pH optima

The enzyme exhibits optimal activity within a pH range of 5.0-7.5 and at a temperature of 60°C. Maximal enzymatic activity is achieved at pH 6.5 and a consistent temperature of 60°C.

## Enzyme activity

The substrate specificity and kinetic properties of CtCel8A (3×GH8 + Coh-CBM3-Coh-Coh) 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

García-Alvarez *et al.* (2011) J. Mol. Biol. 407, 571-580.

## 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](mailto:info@nzytech.com).

## Quality control assay

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

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

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