

## $\beta$ -Acetylglucosaminidase 18A, *Bacillus megaterium*

### *BmAcp18A* (CBM50-CBM50-GH18)

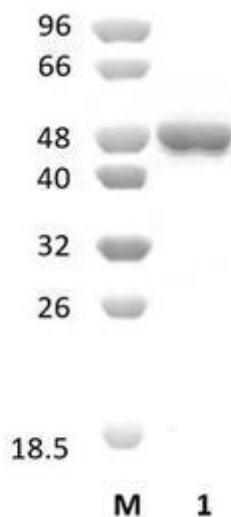
Catalogue number	Presentation
CZ08321	0.25 mg
CZ08322	3 x 0.25 mg

#### Description

$\beta$ -Acetylglucosaminidase 18A (*BmAcp18A*), assigned the E.C. number 3.2.1.-, is a derivative of *Bacillus megaterium*. It is a cortex peptidoglycan hydrolase with endo- $\beta$ -N-acetylglucosaminidase specificity responsible for cortex peptidoglycan degradation that triggers spore germination. The recombinant *BmAcp18A*, purified from *Escherichia coli*, is a modular Glycoside Hydrolase family 18 (CBM50-CBM50-GH18) 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 0.25 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 *BmAcp18A* (CBM50-CBM50-GH18) were evaluated using sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE), followed by BlueSafe staining (MB15201) (Figure 1).



**Figure 1.** SDS-PAGE analysis of *BmAcp18A* (CBM50-CBM50-GH18) was conducted in (Lane 1), employing a 14% polyacrylamide gel. The enzyme exhibits a band corresponding to a molecular weight of approximately 51,09 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

*BmAcp18A* (CBM50-CBM50-GH18) hydrolyses spore cortex peptidoglycan.

#### Temperature and pH optima

The enzyme exhibits optimal activity within a pH range of 6.5-7.5 and at a temperature of 37°C. Maximal enzymatic activity is achieved at pH 7 and a consistent temperature of 37°C.

## Enzyme activity

The substrate specificity and kinetic properties of *Bm*Acp18A (CBM50-CBM50-GH18) 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

Üstok *et al.* (2015) *Proteins*. 83(10):1787-99.

Setlow *et al.* (2009) *J Appl Microbiol*. 107(1):318-28.

## 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  $\geq 90\%$ , 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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