

## $\beta$ -Acetylglucosaminidase 85A, *Streptococcus pneumoniae*

### SpAcp85A (GH85)

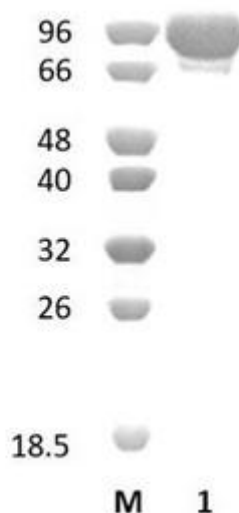
Catalogue number	Presentation
CZ09761	1 mg
CZ09762	3 x 1 mg

#### Description

$\beta$ -Acetylglucosaminidase 85A (SpAcp85A), assigned the E.C. number 3.2.1.96, is a derivative of *Streptococcus pneumoniae*. It is an enzyme that participates in the endohydrolysis of the diacetylchitobiosyl unit in high-mannose glycopeptides and glycoproteins containing the (Man(GlcNAc)(2)Asn)-structure: one N-acetyl-D-glucosamine residue remains attached to the protein, the rest of the oligosaccharide is released intact. The recombinant SpAcp85A, purified from *Escherichia coli*, is a single-domain Glycoside Hydrolase family 85 (GH85) 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 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 SpAcp85A (GH85) were evaluated using sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE), followed by BlueSafe staining (MB15201) (Figure 1).



**Figure 1.** SDS-PAGE analysis of SpAcp85A (GH85) was conducted in (Lane 1), employing a 14% polyacrylamide gel. The enzyme exhibits a band corresponding to a molecular weight of approximately 86,47 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

SpAcp85A (GH85) hydrolyses chitobiose core of N-glycans and the artificial substrates 3-fluoro-4-nitrophenyl 2-acetamido-2-deoxy- $\beta$ -D-glucopyranoside (3F4NP-GlcNAc).

## Temperature and pH optima

The enzyme exhibits optimal activity within a pH range of 7.0-8.0 and at a temperature of 37°C. Maximal enzymatic activity is achieved at pH 7.5 and a consistent temperature of 37°C.

## Enzyme activity

The substrate specificity and kinetic properties of SpAcp85A (GH85) 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

Abbott *et al.* (2009) J Biol Chem. 284(17):11676-89.

## 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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