

## Sialidase 33A, *Streptococcus pneumoniae* SpNan33A (GH33a-GH33b)

### Catalogue number:

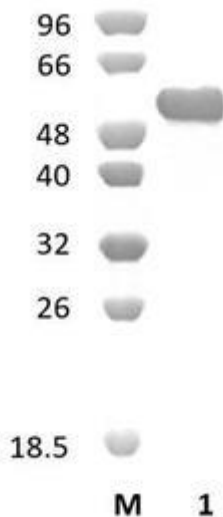
CZ10491, 0,5 mg  
CZ10492, 3 × 0,5 mg

### Description

Sialidase 33A (*SpNan33A*), assigned the E.C. number 3.2.1.18, is a derivative of *Streptococcus pneumoniae*. It is an exo- $\alpha$ -sialidase. The recombinant *SpNan33A*, purified from *Escherichia coli*, is a modular Glycoside Hydrolase family 33 (GH33) enzyme, with two GH33 catalytic module (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 *SpNan33A* (GH33a-GH33b) were evaluated using sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE), followed by BlueSafe staining (MB15201) (Figure 1).



**Figure 1.** SDS-PAGE analysis of *SpNan33A* (GH33a-GH33b) was conducted in Lane 1, employing a 14% polyacrylamide gel. The enzyme exhibits a singular band corresponding to a molecular weight of approximately 54.59 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

*SpNan33A* (GH33a-GH33b) hydrolyses sialic acids from complex carbohydrates and glycoprotein human alpha-1 (AGP).

### Temperature and pH optima

The pH optimum for enzymatic activity is 7 while temperature optimum is 37 °C.

### Enzyme activity

The substrate specificity and kinetic properties of *SpNan33A* (GH33a-GH33b) 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

Berry *et al.* (1996) J Bacteriol. 178(16):4854-60.  
Gut *et al.* (2008) FEBS Lett. 582(23-24):3348-52.

### 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).

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