

## Hexosaminidase 3A, *Vibrio furnissii*

### VfHex3A (GH3)

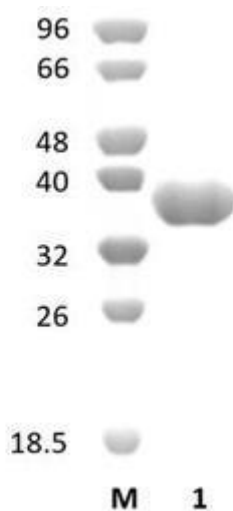
Catalogue number	Presentation
CZ08251	1 mg
CZ08252	3 x 1 mg

#### Description

Hexosaminidase 3A (VfHex3A), assigned the E.C. number 3.2.1.52, is a derivative of *Vibrio furnissii*. It is a  $\beta$ -acetylhexosaminidase. The recombinant VfHex3A, purified from *Escherichia coli*, is a single-domain Glycoside Hydrolase family 3 (GH3) 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 VfHex3A (GH3) were evaluated using sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE), followed by BlueSafe staining (MB15201) (Figure 1).



**Figure 1.** SDS-PAGE analysis of VfHex3A (GH3) was conducted in (Lane 1), employing a 14% polyacrylamide gel. The enzyme exhibits a band corresponding to a molecular weight of approximately 38,27 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

VfHex3A (GH3) hydrolyses 4-nitrophenyl N-acetyl  $\beta$ -D-glucosamine, 4-methylumbelliferyl N-acetyl- $\beta$ -D-glucosaminide, 4-nitrophenyl- $\beta$ -N-acetylgalactosamine ( $\beta$ -GalNAc), and was inactive with all other GlcNAc derivatives, including N,N'-diacetylchitobiose and (GlcNAc)<sub>n</sub>.

#### Temperature and pH optima

The enzyme exhibits optimal activity within a pH range of 6.0-8.0 and at a temperature of 45°C. Maximal enzymatic activity is achieved at pH 7 and a consistent temperature of 45°C.

## Enzyme activity

The substrate specificity and kinetic properties of V<sub>f</sub>Hex3A (GH3) 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

Chitlaru and Roseman. (1996) J Biol Chem. 271(52):33433-9.

## 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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