

## $\beta$ -Fructofuranosidase 32B, *Bacteroides thetaiotaomicron*

### *BtBff32B* (GH32)

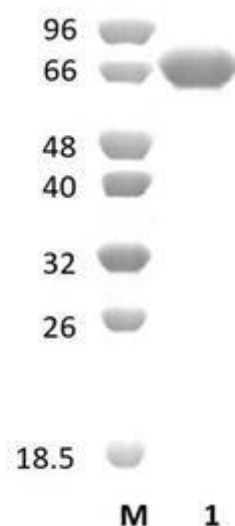
Catalogue number	Presentation
CZ07811	0.5 mg
CZ07812	3 x 0.5 mg

#### Description

$\beta$ -Fructofuranosidase 32B (*BtBff32B*), assigned the E.C. number 3.2.1.26, 3.2.1.64 and 3.2.1.80, is a derivative of *Bacteroides thetaiotaomicron*. It is a three functional  $\beta$ -fructofuranosidase, 2,6- $\beta$ -fructan 6-levanbiohydrolase and exo- $\beta$ -fructanase. The recombinant *BtBff32B*, purified from *Escherichia coli*, is a single-domain Glycoside Hydrolase family 32 (GH32) 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  $\text{CaCl}_2$ , 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 *BtBff32B* (GH32) were evaluated using sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE), followed by BlueSafe staining (MB15201) (Figure 1).



**Figure 1.** SDS-PAGE analysis of *BtBff32B* (GH32) was conducted in (Lane 1), employing a 14% polyacrylamide gel. The enzyme exhibits a band corresponding to a molecular weight of approximately 70,64 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

*BtBff32B* (GH32) hydrolyses  $\beta$ 2-1,  $\beta$ 2-6 fructans and sucrose.

#### Temperature and pH optima

The pH optimum for enzymatic activity is 8 while temperature optimum is 37 °C.

## Enzyme activity

The substrate specificity and kinetic properties of *BtBff32B* (GH32) 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

Sonnenburg *et al.* (2010) *Cell*. 141(7):1241-1252.

## 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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