

## **$\alpha$ -Rhamnosidase 78C, *Bacteroides thetaiotaomicron***

### ***BtRam78C* (CBM67-GH78)**

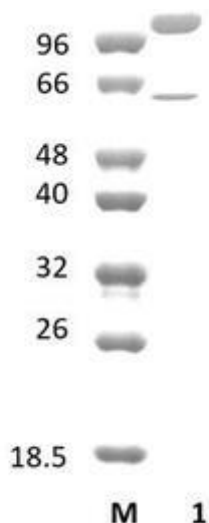
Catalogue number	Presentation
CZ07621	1 mg
CZ07622	3 x 1 mg

#### **Description**

$\alpha$ -Rhamnosidase 78C (*BtRam78C*), assigned the E.C. number 3.2.1.40, is a derivative of *Bacteroides thetaiotaomicron*. It is an enzyme that participates in the hydrolysis of terminal non-reducing  $\alpha$ -L-rhamnose residues in  $\alpha$ -L-rhamnosides. The recombinant *BtRam78C*, purified from *Escherichia coli*, is a modular Glycoside Hydrolase family 78 (CBM67-GH78) 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 *BtRam78C* (CBM67-GH78) were evaluated using sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE), followed by BlueSafe staining (MB15201) (Figure 1).



**Figure 1.** SDS-PAGE analysis of *BtRam78C* (CBM67-GH78) was conducted in (Lane 1), employing a 14% polyacrylamide gel. The enzyme exhibits a band corresponding to a molecular weight of approximately 107,9 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**

*BtRam78C* (CBM67-GH78) hydrolyses the L-Rhap- $\alpha$ 1,3-L-Araf linkage in rhamnogalacturonan II (RGII).

#### **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 BtRam78C (CBM67-GH78) 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

Ndeh *et al.* (2017) Nature. 544(7648):65-70.

## 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  $\geq 50\%$ , 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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