

## Rhamnogalacturonan endolyase 9B, *Bacteroides thetaiotaomicron*

### *BtRge9B* (PL9)

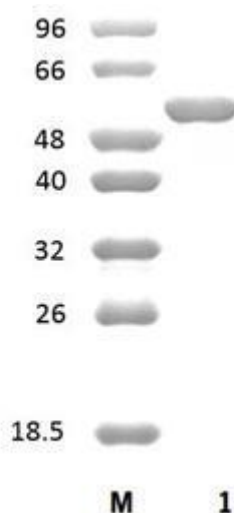
Catalogue number	Presentation
CZ01861	1 mg
CZ01862	3 x 1 mg

#### Description

Rhamnogalacturonan endolyase 9B (*BtRge9B*), assigned the E.C. number 4.2.2.23, is a derivative of *Bacteroides thetaiotaomicron*. It is an enzyme that participates in the endotype eliminative cleavage of L- $\alpha$ -rhamnopyranosyl-1,4- $\alpha$ -D-galactopyranosyluronic acid bonds of rhamnogalacturonan I domains in ramified hairy regions of pectin leaving L-rhamnopyranose at the reducing end and 4-deoxy-4,5-unsaturated D-galactopyranosyluronic acid at the non-reducing end. The recombinant *BtRge9B*, purified from *Escherichia coli*, is a single-domain Pectate Lyase family 9 (PL9) 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 *BtRge9B* (PL9) were evaluated using sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE), followed by BlueSafe staining (MB15201) (Figure 1).



**Figure 1.** SDS-PAGE analysis of *BtRge9B* (PL9) was conducted in (Lane 1), employing a 14% polyacrylamide gel. The enzyme exhibits a band corresponding to a molecular weight of approximately 57,88 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

*BtRge9B* (PL9) participates in the eliminative cleavage of rhamnogalacturonan I.

#### Temperature and pH optima

The pH optimum for enzymatic activity is 7.5 while temperature optimum is 37 °C.

## Enzyme activity

The substrate specificity and kinetic properties of *BtRge9B* (PL9) 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

Xu *et al.* (2003) *Science*. 299(5615):2074-6.

Mahowald *et al.* (2009) *Proc Natl Acad Sci U S A*. 106(14):5859-64.

Luis *et al.* (2018) *Nat Microbiol*. 3(2): 210–219.

## 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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