

## Pectate lyase 3C, *Bacillus subtilis*

### BsPel3C (PL3)

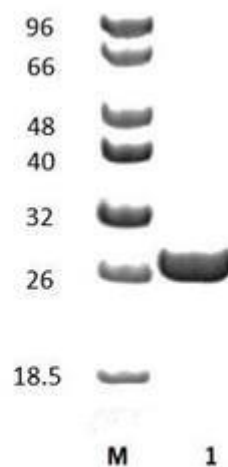
Catalogue number	Presentation
CZ01311	1 mg
CZ01312	3 x 1 mg

#### Description

Pectate lyase 3C (*BsPel3C*), assigned the E.C. number 4.2.2.2, is a derivative of *Bacillus subtilis*. It is an endo-1,4- $\alpha$ -polygalacturonic acid lyase. The recombinant *BsPel3C*, purified from *Escherichia coli*, is a single-domain Pectate Lyase family 3 (PL3) 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 *BsPel3C* (PL3) were evaluated using sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE), followed by BlueSafe staining (MB15201) (Figure 1).



**Figure 1.** SDS-PAGE analysis of *BsPel3C* (PL3) was conducted in (Lane 1), employing a 14% polyacrylamide gel. The enzyme exhibits a band corresponding to a molecular weight of approximately 23,40 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

*BsPel3C* (PL3) participates in the eliminative cleavage of methylated pectin in addition to polygalacturonic acid.

#### Temperature and pH optima

The enzyme exhibits optimal activity within a pH of 10.5 and at a temperature range of 40-45°C. Maximal enzymatic activity is achieved at pH 10.5 and a consistent temperature of 45°C.

## Enzyme activity

The substrate specificity and kinetic properties of *BsPel3C* (PL3) 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

Boland *et al.* (2010) *Appl Environ Microbiol.* 76(17): 6006–6009.

## 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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