

## Lytic chitin monooxygenase 10A, *Enterococcus faecalis*

### *EfLpmo10A* (AA10)

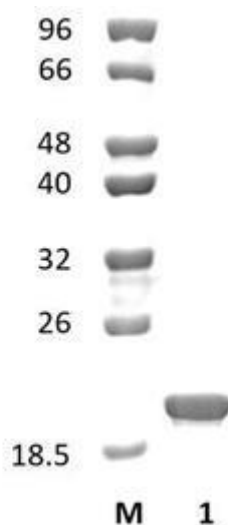
Catalogue number	Presentation
CZ05123	0.5 mg
CZ05124	3 x 0.5 mg

#### Description

Lytic chitin monooxygenase 10A (*EfLpmo10A*), assigned the E.C. number 1.14.99.53, is a derivative of *Enterococcus faecalis*. It is a copper-dependent lytic polysaccharide monooxygenase (LPMO). The recombinant *EfLpmo10A*, purified from *Escherichia coli*, is a single-domain Auxiliary Activity enzyme family 10 (AA10) 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 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 *EfLpmo10A* (AA10) were evaluated using sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE), followed by BlueSafe staining (MB15201) (Figure 1).



**Figure 1.** SDS-PAGE analysis of *EfLpmo10A* (AA10) was conducted in (Lane 1), employing a 14% polyacrylamide gel. The enzyme exhibits a band corresponding to a molecular weight of approximately 19,51 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

*EfLpmo10A* (AA10) hydrolyses soluble chitooligosaccharides and  $\alpha$ - and  $\beta$ -chitin.

#### Temperature and pH optima

The pH optimum for enzymatic activity is 6 while temperature optimum is 25 °C.

## Enzyme activity

The substrate specificity and kinetic properties of *Eflpmo10A* (AA10) 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

Vaaje-Kolstad *et al.* (2012) *J Mol Biol.* 416(2):239-54.

Gudmundsson *et al.* (2014) *J Biol Chem.* 289(27):18782-92.

## 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.