

## Feruloyl esterase 1B, *Anaeromyces mucronatus*

### *AmFae1B* (CE1)

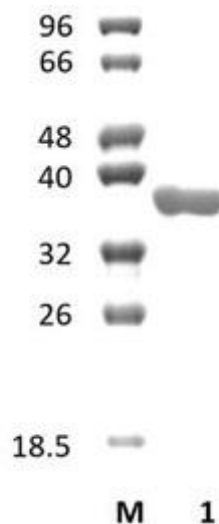
Catalogue number	Presentation
CZ07271	0.5 mg
CZ07272	3 x 0.5 mg

#### Description

Feruloyl esterase 1B (*AmFae1B*), assigned the E.C. number 3.1.1.73, is a derivative of *Anaeromyces mucronatus*. It is an enzyme that hydrolyzes the ferulate groups involved in the crosslinking of hemicelluloses to lignin. The recombinant *AmFae1B*, purified from *Escherichia coli*, is a single-domain Carbohydrate Esterase family 1 (CE1) 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 *AmFae1B* (CE1) were evaluated using sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE), followed by BlueSafe staining (MB15201) (Figure 1).



**Figure 1.** SDS-PAGE analysis of *AmFae1B* (CE1) was conducted in (Lane 1), employing a 14% polyacrylamide gel. The enzyme exhibits a band corresponding to a molecular weight of approximately 36,04 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

*AmFae1B* (CE1) participates in the de-esterification of naphthyl fatty acid esters, p-nitrophenyl fatty acid esters and hydroxycinnamic acid esters.

#### Temperature and pH optima

The pH optimum for enzymatic activity is 7.2 while temperature optimum is 37 °C.

## Enzyme activity

The substrate specificity and kinetic properties of *AmFae1B* (CE1) 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

Gruninger *et al.* (2016) *Biochem J.* 473(7):839-49.

Qi *et al.* (2011) *J Appl Microbiol.* 110(5):1341-50.

## 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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