

β -Agarase 16D, *Zobellia galactanivorans*

ZgAga16D (GH16)

Catalogue number	Presentation
CZ04531	0.25 mg
CZ04532	3 x 0.25 mg

Description

β -Agarase 16D (ZgAga16D), assigned the E.C. number 3.2.1.81, is a derivative of *Zobellia galactanivorans*. It is an enzyme that participates in the hydrolysis of 1,4- β -galactosidic linkages in agarose. The recombinant ZgAga16D, purified from *Escherichia coli*, is a single-domain Glycoside Hydrolase family 16 (GH16) enzyme (see more details at 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 CaCl₂, and 25% (v/v) glycerol, at a concentration of 0.25 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 ZgAga16D (GH16) were evaluated using sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE), followed by BlueSafe staining (MB15201) (Figure 1).



Figure 1. SDS-PAGE analysis of ZgAga16D (GH16) was conducted in (Lane 1), employing a 14% polyacrylamide gel. The enzyme exhibits a band corresponding to a molecular weight of approximately 42,49 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

ZgAga16D (GH16) hydrolyses agarose.

Temperature and pH optima

The enzyme exhibits optimal activity within a pH of 7 and at a temperature range of 20-30°C. Maximal enzymatic activity is achieved at pH 7 and a consistent temperature of 25°C.

Enzyme activity

The substrate specificity and kinetic properties of ZgAga16D (GH16) 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

Hehemann *et al.* (2012) *J Biol Chem.* 287(36):30571-84.

Hehemann *et al.* (2010) *Acta Crystallogr Sect F Struct Biol Cryst Commun.* 66(Pt 4):413-7.

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.

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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