

β -Glucosidase 39A, *Pseudomonas* sp.

P.Bgl39A (GH39)

| Catalogue number | Presentation |
|------------------|--------------|
| CZ10961 | 1 mg |
| CZ10962 | 3 x 1 mg |

Description

β -Glucosidase 39A (*P.Bgl39A*), assigned the E.C. number 3.2.1.21, is a derivative of *Pseudomonas* sp.. It is a 1,4- β -glucosidase. The recombinant *P.Bgl39A*, purified from *Escherichia coli*, is a single-domain Glycoside Hydrolase family 39 (GH39) 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 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 *P.Bgl39A* (GH39) were evaluated using sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE), followed by BlueSafe staining (MB15201) (Figure 1).

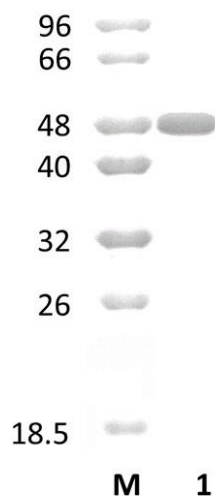


Figure 1. SDS-PAGE analysis of *P.Bgl39A* (GH39) was conducted in (Lane 1), employing a 14% polyacrylamide gel. The enzyme exhibits a band corresponding to a molecular weight of approximately 48,55 kDa. Lane M contains a Protein Marker for reference.

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.

Temperature and pH optima

The pH optimum for enzymatic activity is 7 while temperature optimum is 37 °C.

Specific activity

The activity of *P.Bgl39A* (GH39) was determined against *Pseudomonas aeruginosa*'s Psl exopolysaccharide under standard conditions (37 °C in 0.1 M of citrate-phosphate buffer, pH 7.0) by monitoring reducing sugar release spectrophotometrically at 570 nm. The relative activity of *P.Bgl39A* (GH39) is denoted as 73.33 % of the activity measured for *Pseudomonas sp.*' GH39 against the same substrate.

P.Bgl39A (GH39) has shown the ability to promote a 25.0% biofilm biomass reduction in *Pseudomonas aeruginosa*'s biofilm degradation assays and a 50.0% biofilm biomass reduction in *Pseudomonas aeruginosa*'s biofilm inhibition assays.

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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