

β -Acetylglucosaminidase 20A, *Pseudoleptotrichia goodfellowii*

PgAcp20A (GH20)

Catalogue number	Presentation
CZ11081	1 mg
CZ11082	3 x 1 mg

Description

β -Acetylglucosaminidase 20A (*PgAcp20A*), assigned the E.C. number 3.2.1.-, is a derivative of *Pseudoleptotrichia goodfellowii*. It is a peptidoglycan hydrolase with endo- β -N-acetylglucosaminidase specificity. The recombinant *PgAcp20A*, purified from *Escherichia coli*, is a single-domain Glycoside Hydrolase family 20 (GH20) 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 *PgAcp20A* (GH20) were evaluated using sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE), followed by BlueSafe staining (MB15201) (Figure 1).

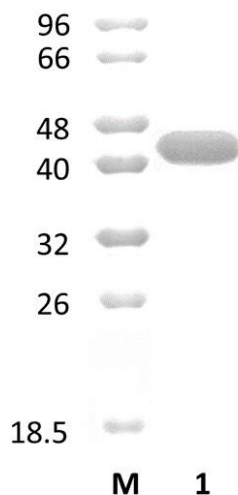


Figure 1. SDS-PAGE analysis of *PgAcp20A* (GH20) was conducted in (Lane 1), employing a 14% polyacrylamide gel. The enzyme exhibits a band corresponding to a molecular weight of approximately 42,44 kDa. Lane M contains a Protein Marker for reference.

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

PgAcp20A (GH20) hydrolyses 4-Nitrophenyl- β -N-acetyl-D-glucosaminide (pNP-NAG).

Temperature and pH optima

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

Specific activity

The activity of *PgAcp20A* (GH20) was determined against 4-Nitrophenyl- β -N-acetyl-D-glucosaminide (pNP-NAG) under standard conditions (37 °C in 0.1 M of citrate-phosphate buffer, pH 7.0) by monitoring pNP release spectrophotometrically at 415 nm. The relative activity of *PgAcp20A* (GH20) is denoted as 213.9% of the activity measured for *Aggregatibacter actinomycetemcomitans*' Dispersin B against the same substrate.

PgAcp20A (GH20) has shown the ability to promote a 50.0% biofilm biomass reduction in *Staphylococcus aureus*' biofilm degradation assays and a 75.0% biofilm biomass reduction in *Staphylococcus aureus*' 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.