

## N-Acetylglucosaminylphosphatidylinositol *Mycobacterium tuberculosis*

deacetylase **14A,**

### MtGpi14A (CE14)

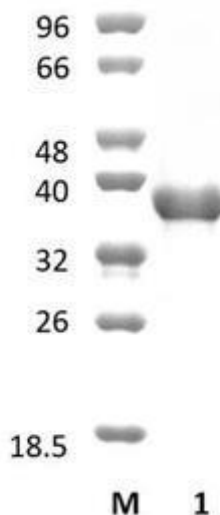
Catalogue number	Presentation
CZ05201	0.5 mg
CZ05202	3 x 0.5 mg

#### Description

N-Acetylglucosaminylphosphatidylinositol deacetylase 14A (*MtGpi14A*), assigned the E.C. number 3.5.1.89, is a derivative of *Mycobacterium tuberculosis*. It is a N-acetylglucosaminylphosphatidylinositol deacetylase. The recombinant *MtGpi14A*, purified from *Escherichia coli*, is a single-domain Carbohydrate Esterase family 14 (CE14) 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 *MtGpi14A* (CE14) were evaluated using sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE), followed by BlueSafe staining (MB15201) (Figure 1).



**Figure 1.** SDS-PAGE analysis of *MtGpi14A* (CE14) was conducted in (Lane 1), employing a 14% polyacrylamide gel. The enzyme exhibits a band corresponding to a molecular weight of approximately 36,36 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

*MtGpi14A* (CE14) participates in the de-esterification of 1-D-myo-inosityl 2-acetamido-2-deoxy- $\alpha$ -D-glucopyranoside.

## Temperature and pH optima

The pH optimum for enzymatic activity is 7.5 while temperature optimum is 37 °C.

## Enzyme activity

The substrate specificity and kinetic properties of *MtGpi14A* (CE14) 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

Maynes *et al.* (2003) *J Biol Chem.* 278(47):47166-70.

Newton *et al.* (2006) *Protein Expr Purif.* 47(2):542-50.

## 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 ≥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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