

N-Acetylglucosaminylphosphatidylinositol deacetylase 14A, *Mycobacterium smegmatis* MsGpi14A (CE14)

Catalogue number:

CZ06831, 1 mg
CZ06832, 3 × 1 mg

Description

MsGpi14A (CE14), MSMEG_5129, E.C. number 3.5.1.89, is a N-acetylglucosaminylphosphatidylinositol deacetylase from *Mycobacterium smegmatis*. Recombinant MsGpi14A (CE14), purified from *Escherichia coli*, is a single domain family 14 Carbohydrate Esterase (CE14) (www.cazy.org). The enzyme is provided in 35 mM NaHepes buffer, pH 7.5, 750 mM NaCl, 200 mM imidazol, 3.5 mM CaCl₂ and 25% (v/v) glycerol, at a 1 mg/mL concentration. Bulk quantities of this product are available on request.

Electrophoretic Purity

MsGpi14A (CE14) purity was determined by sodium dodecyl sulfate polyacrylamide gel electrophoresis (SDS-PAGE) followed by BlueSafe staining (MB15201) (Figure 1).

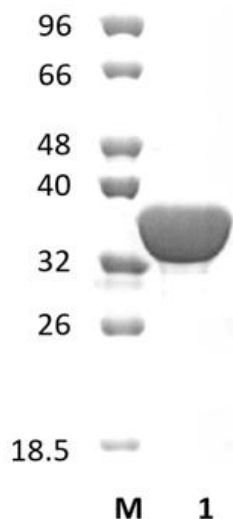


Figure 1. SDS-PAGE analysis of MsGpi14A (CE14) (Lane 1). Electrophoresis was performed using a 14% polyacrylamide gel. The Mw of the enzyme is 35,44 kDa. Lane M contains NZYTech Low Molecular Weight (LMW) Protein Marker (MB082).

Storage temperature

This enzyme should be stored at -20 °C.

Substrate specificity

MsGpi14A (CE14) participates in the de-esterification of 1-D-myoinosityl-2-acetamido-2-deoxy- α -D-glucopyranoside (GlcNAc-Ins).

Temperature and pH optima

The pH optimum for enzymatic activity is 8 while temperature optimum is 37 °C.

Enzyme activity

Substrate specificity and kinetic properties of MsGpi14A (CE14) are described in the reference provided below. Follow the instructions described in the paper for the implementation of enzyme assays and to obtain values of specific activity.

Reference

Newton *et al.* J Bacteriol. 2000 Dec.182(24):6958-63.

Quality control assay

Protein purity is $\geq 90\%$ as judged by SDS-PAGE followed by BlueSafe staining (MB15201).

Certificate of Analysis

Test	Criteria	Result
Protein purity	Purity in line with the stated value	Meets specification

Approved by:



Patrícia Ponte
Senior Manager, Quality Systems

For research use only



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