CZ0429_UG_EN_V2302

# UDP-acetylglucosamine deacetylase 11A, *Pseudomonas aeruginosa*

# *Pa*Lpx11A (CE11)

| Catalogue number | Presentation |
|---|---|
| CZ04291 | 1 mg |
| CZ04292 | 3 x 1 mg |

## Description

UDP-acetylglucosamine deacetylase 11A (*Pa*Lpx11A), assigned the E.C. number 3.5.1.108, is a derivative of *Pseudomonas aeruginosa*. It is a metal-dependent deacetylase that removes the acetyl group from the 2-amino group of UDP-(3-O-(R-3-hydroxymyristoyl))-N-acetylglucosamine (myr-UDP-GlcNAc)3. The recombinant *Pa*Lpx11A, purified from *Escherichia coli*, is a single-domain Carbohydrate Esterase family 11 (CE11) 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 $CaCl_2$, 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 *Pa*Lpx11A (CE11) were evaluated using sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE), followed by BlueSafe staining (MB15201) (Figure 1).

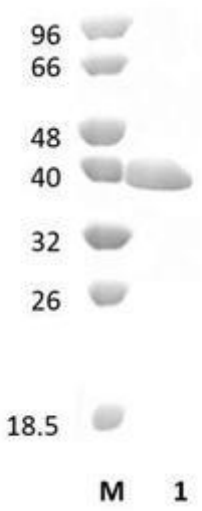


**Figure 1**. SDS-PAGE analysis of *Pa*Lpx11A (CE11) was conducted in (Lane 1), employing a 14% polyacrylamide gel. The enzyme exhibits a band corresponding to a molecular weight of approximately 35,53 kDa. Lane M contains a Protein Marker for reference.

## 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

*Pa*Lpx11A (CE11) participates in the de-esterification of UDP-3-O-(R-3-hydroxymyristoyl)-N-acetylglucosamine.

## Temperature and pH optima

The pH optimum for enzymatic activity is 8.5 while temperature optimum is 30 °C.

## Enzyme activity

The substrate specificity and kinetic properties of *Pa*Lpx11A (CE11) 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


Hyland *et al*. (1997) J Bacteriol. 179(6): 2029–2037.

Mdluli *et al*. (2006) Antimicrob Agents Chemother. 50(6):2178-84.

Mochalkin *et al*. (2008) Protein Sci. 17(3): 450–457.

Liang *et al.* (2013) J Med Chem. 56(17):6954-6966.

Piizzi *et al*. (2017) J Med Chem. 60(12):5002-5014.

Cohen *et al.* (2019) ChemMedChem. 14(16):1560-1572.

Surivet *et al.* (2020) J Med Chem. 63(1):66-87.


## 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 ≥90%, as assessed by SDS-PAGE and subsequent BlueSafe staining (MB15201).