

Product Name: LotA-N

Alternate Names: None

Product Code: TDE-064

Quantity: 50 µg

FOR RESEARCH USE ONLY (RUO)

Storage:

Use a manual defrost freezer and avoid repeated freeze-thaw cycles. Aliquot and store ≤ -70°C (stable for 24 months from date of receipt).

Verified Applications / Usage

Recombinant *L. pneumophila* LotA-N is a Ubiquitin-specific deconjugating enzyme that is highly specific for K6-linked poly-ubiquitin. Appropriate enzyme concentrations are specific to the application.

Physical Characteristics

Species: *Legionella pneumophila* subsp. *pneumophila* (strain Philadelphia 1 / ATCC 33152 / DSM 7513)

Predicted MW (kDa): 34 kDa

Source: *E.coli* BL21(DE3) A.I.

Purity: 95%

Concentration: 50 - 60 µM

Formulation: 40 mM HEPES, 100 mM NaCl, 10% Glycerol, 1 mM EDTA, 1 mM TCEP, pH 7.6

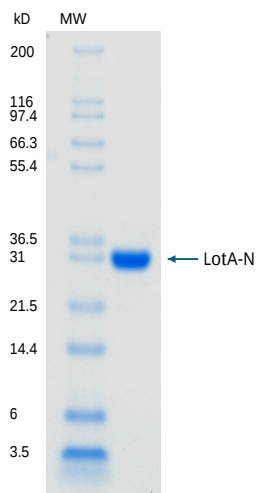
Shipping: The product is shipped with dry ice or equivalent. Upon receipt, store it immediately at the temperature recommended below.

Stability/Storage: Use a manual defrost freezer and avoid repeated freeze-thaw cycles. Aliquot and store ≤ -70°C (stable for 24 months from date of receipt).

Quality Assurance

Purity & SDS-PAGE

Protein ID: Dot/Icm T4SS effector



2 µg UBA1 run on 4-12% SDS-PAGE gel under reducing conditions, then visualized with Colloidal Coomassie Blue Stain.

Activity Assay

Verified in K6-linked Di-ubiquitin Hydrolysis Assay

Background

Description

LotA-N is the isolated OTU1 domain (aa 1 – 276) from the *Legionella pneumophila* effector LotA. Unlike broader-scope DUBs, LotA-N shows extraordinary selectivity for Lys6-linked poly-ubiquitin, cleaving K6 di-, tetra- and longer chains at least 100-fold faster than any other linkage while leaving K48/K63 tags untouched. Because it is a Lys6-only “restriction enzyme”, recombinant LotA-N is prized for: (i) UbiCRest mapping of unknown chain architectures and validating Lys6-specific antibodies or mass-spec workflows.

Accession Number: Q5ZTB4

Entrez Gene ID: lpg2248

Protein Sequence

MHHHHHHGSLEVLFFQGP GSM AKTIKATGDGACLFNAV SIGLSVEILSGR
LDSQLDTPGYQALLDEF AKHHPQFNPKSWKTLKEWLAYYNDTRDIELIL
APVLFN LNQKYQDHLDEEILNELTNLVWKNKANIENGQAWFQLQNTGD
LGEALFPKLENLDLKKDRAPLLDKLREILKDYKLELTRENVKQFLTEKAK
ELLSALKKKISSDPHAFQRGYSCDELKGMTDALAISLVENREEDITDNRI
KIRLENQEEHWNVLCNEEDSERFLDSTPSRLKMTSLEAYRGDKQVSAP
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