Product Name: LotA-N

Alternate Names: lpg2248

Product Code: TDE-064

FOR RESEARCH USE ONLY (RUO)

Verified Applications / Usage

Recombinant *L. pneumophila* LotA-N is a ubiquitin-specific deconjugating enzyme that is highly specific for K6-linked polyubiquitin. 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 %

Tag: N-His_6-3C

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

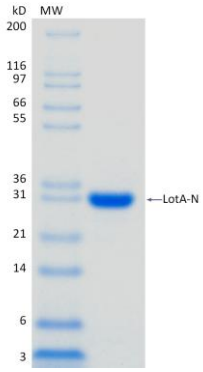
Shipping: The product is shipped with dry ice. Upon receipt, store it immediately at the temperature recommended below.

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 LotA-N 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. LotA-N shows extraordinary selectivity for K6-linked polyubiquitin chains, which are hydrolyzed 100-fold faster than other linkages. Because it is a K6-only "restriction enzyme", recombinant LotA-N is useful in UbiCrest mapping of unknown chain architectures and other workflows specific to the K6 linkage.

Accession Number: Q5ZTB4

Entrez Gene ID: lpg2248

Protein Sequence

MHHHHHHGSLEVLFQGPGSMAKTIKATGDGACLFNAVSIGLSVEILSGRLDSQLDTPGYQALL
DEFAKHHPQFNPKSWKTLKEWLAYYNDTRDIELILAPVLFNLNQKYQDHLDEEILNELTNLVW
KNKANIENGQAWFQLQNTGDLGEALFPKLENLDLKKDRAPLLDKLREILKDYKLELTRENVKQ
FLTEKAKELLSALKKKISSDPHAFQRGYSCDELKGMTDALAISLVENREEDITDNRIKIRLEN
QEEHWNVLCNEEDSERFLDSTPSRLKMTSLEAYRGDKQVSAPT