

Product Name: NleL

Alternate Names: NleL (Non-LEE encoded effector L)

Product Code: TE3-020

Quantity: 25 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

In vitro, recombinant NleL E3 ligase accepts activated ubiquitin from E2 conjugating enzymes UBE2D1 or UBE2L3, in a reaction that also requires Ubiquitin Activating Enzyme 1 (an E1). The charged E3 generates K6- and K48-linked poly-ubiquitin chains. Appropriate enzyme concentrations are specific to the application.

Physical Characteristics

Species: Escherichia coli
O157:H7

Predicted MW (kDa): 70 kDa

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

Purity: 95%

Concentration: 15 - 20 µM

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

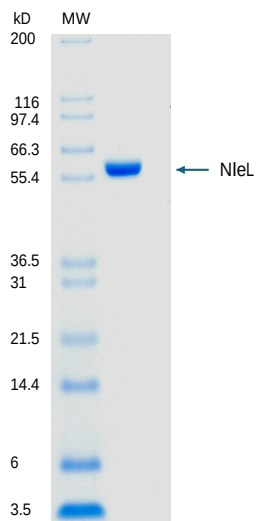
Shipping: The product is shipped with dry ice or equivalent. Upon receipt, store it immediately at the temperature recommended below.

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: E3 ubiquitin-protein
ligase SopA



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

Activity Assay

Verified in Poly-ubiquitin Chain Synthesis Assay.

Background

Description

NleL is a HECT class ubiquitin ligase secreted by enterohemorrhagic and enteropathogenic E. coli. In vitro it transfers ubiquitin from a host E2 enzyme to its own catalytic cysteine and then onto target proteins, forming poly-ubiquitin chains that alter cell-signaling pathways.

Recombinant NleL offers a compact, well-behaved model of a HECT ligase for screening inhibitors, testing linkage-specific antibodies and comparing chain-assembly mechanisms across the ubiquitin field. In combination with UBA1, UBE2L3 and ubiquitin, NleL generates a mixture of Lys48- and Lys6-linked poly-ubiquitin chains in vitro.

Accession Number:
A0A0H3JDV8

Entrez Gene ID: espX7

Protein Sequence

GPLGSQGRACLSKAELTADLIWLSANRTGEESAEEELNYSGCCDLSGLSL
VGLNLSSVNFSGAVLDDTDLRMSDLSQAVLENCSEFKNSILNECNFCYA
NLSNCIIRALFENSNFNSNLKNASFKGSSYIQYPPILNEADLTGAIIPGM
VLSGAILGDVKELFSEKSNTINLGGCYIDLSDIQENILSVLDNYTKSNKSIL
LTMNTSDDKYNHDKVRAAEELIKKISLDELAAPRPYVKMSLADSFSEHPY
LNNANIQQWLEPICDDFFDTIMSWFNNSIMMYMENGSLQAGMYFERH
PGAMVSYNSSFIQIVMNGSRRDGMQERFRELYEVYLNKNEKVYPVTQQ
SDFGLCDGSGKPDWDDSDLAYNWVLLSSQDDGMAMMCSLSHMVD
MLSPNTSTNWMSFFLYKDGEVQNTFGYSLSNLFSSEFPIFSIPYHKAFS
QNFVSGILDILISDNELKERFIEALNSNKSDYKMIADDQQRKLACVWNPF
LDGWELNAQHVDMMIMGSHVLKDMPLRKQAEILFCLGGVFCKYSSSDM
FGTEYDSPEILRRYANGLIEQAYKTDPQVFGSVYYYNDILDRLQGRNNV
FTCTAVLTDMLTEHAKESFPEIFSLYYPVAWR