Product Name: CUL2 / RBX1, Neddylated

Alternate Names: Cullin-2

Product Code: TE3-018

FOR RESEARCH USE ONLY (RUO)

Verified Applications / Usage

Suitable for studies of Cullin-RING ligase (CRL2) activity, substrate ubiquitylation, ubiquitin chain formation, E3 ligase assembly, and targeted protein degradation mechanisms. The complex can be combined with CRL2 substrate receptors to reconstitute active E3 ligases *in vitro*.

Physical Characteristics

Species: Human

Predicted MW (kDa): CUL2: 87 kDa
RBX1: 12 kDa
NEDD8: 8.6 kDa

Source: Sf9 (*S. frugiperda*)

Purity: 85 %

Tags: CUL2: Untagged
RBX1: Untagged
NEDD8: Untagged

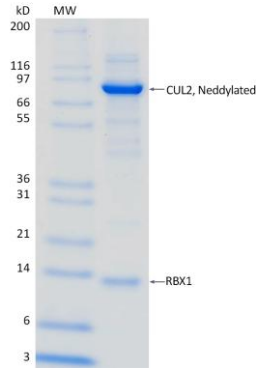
Formulation: 40 mM HEPES, 200 mM NaCl, 10% Glycerol, 1 mM EDTA, 2 mM TCEP, pH 7.6

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



2 µg CUL2 / RBX1 run on 4-12% SDS-PAGE gel under reducing conditions, then visualized with Colloidal Coomassie Blue Stain.

Protein ID: Cullin-2
E3 ubiquitin-protein ligase RBX1
Ubiquitin-like protein NEDD8

Activity Assay

Verified in Ubiquitylation Assay.

Background

Description

CUL2 / RBX1, Neddylated is a recombinant, pre-activated CRL2 core E3 ubiquitin ligase complex composed of NEDD8-modified human CUL2 and RBX1. The complex provides a ready-to-use catalytic scaffold for ubiquitylation assays, targeted protein degradation studies, and characterization of CRL2-dependent substrate ubiquitylation.

Accession Number: Q13617 **Entrez Gene ID:** CUL2

Accession Number: P62877 **Entrez Gene ID:** RBX1

Accession Number: Q15843 **Entrez Gene ID:** NEDD8

Protein Sequence

CUL2:
MSLKPRVVDFDETWNKLLTTIKAVVMLEYVERATWNDRFSDIYALCVAYPEPLGERLYTETKI
FLENHVRHLHKRVLESEEQVLVMYHRYWEEYSKGADYMDCLYRYLNTQFIKKNKLTEADLQYG
YGGVDMNEPLMEIGELALDMWRKLMVEPLQAILIRMLLREIKNDRGGEDPNQKVIHGVINSFV
HVEQYKKKFPLKFYQEIFESPFLTETGEYYKQEASNLLQESNCSQYMEKVLGRLKDEEIRCRK
YLHPSSYTKVIHECQQRMVADHLQFLHAECHNIIRQEKKNDMANMYVLLRAVSTGLPHMIQEL
QNHIHDEGLRATSNLTQENMPTLFVESVLEVHGKFVQLINTVLNGDQHFMSALDKALTSVVNY
REPKSVCKAPELLAKYCDNLLKKSAKGMTENEVEDRLTSFITVFKYIDDKDVFQKFYARMLAK
RLIHGLSMSMDSEEAMINKLKQACGYEFTSKLHRMYTDMSVSADLNNKFNNFIKNQDTVIDLG
ISFQIYVLQAGAWPLTQAPSSTFAIPQELEKSVQMFELFYSQHFSGRKLTWLHYLCTGEVKMN
YLGKPYVAMVTTYQMAVLLAFNNSETVSYKELQDSTQMNEKELTKTIKSLLDVKMINHDSEKE
DIDAESSFSLNMNFSSKRTKFKITTSMQKDTPQEMEQTRSAVDEDRKMYLQAAIVRIMKARKV
LRHNALIQEVISQSRARFNPSISMIKKCIEVLIDKQYIERSQASADEYSYVA

RBX1:
GSDVDTPSGTNSGAGKKRFEVKKWNAVALWAWDIVVDNCAICRNHIMDLCIECQANQASATSE
ECTVAWGVCNHAFHFHCISRWLKTRQVCPLDNREWEFQKYGH

NEDD8:
MLIKVKTLTGKEIEIDIEPTDKVERIKERVEEKEGIPPQQQRLIYSGKQMNDEKTAADYKILG
GSVLHLVLALRGGGGLRQ