

DESCRIPTION

Source	<i>Spodoptera frugiperda</i> , Sf 21 (baculovirus)-derived human CUL4A/RBX1/DDB1/CRBN Complex protein Accession # Q13619.3 (CUL4A); P62877.1 (RBX1); Q16531.1 (DDB1), Q96SW2.1 (CRBN) This complex consists of an N-terminal 10-His tagged, neddylated Cullin-4A, untagged RBX1, untagged DDB1, and untagged CRBN.
Predicted Molecular Mass	104 kDa (Neddylated CUL4A), 12 kDa (RBX1), 127 kDa (DDB1), 51 kDa (CRBN)

SPECIFICATIONS

Activity	Typical concentration to support <i>in vitro</i> conjugation reactions will depend on experimental conditions.
Purity	>85%, by SDS-PAGE under reducing conditions and visualized by Colloidal Coomassie® Blue stain.
Formulation	Supplied as a 0.2 µm filtered solution in HEPES, NaCl, DTT and Glycerol. See Certificate of Analysis for details.

PREPARATION AND STORAGE

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. <ul style="list-style-type: none"> • 6 months from date of receipt, -70 °C as supplied. • 3 months, -70 °C under sterile conditions after opening.

BACKGROUND

Cullin-4A is a core component of multiple cullin-RING type ubiquitin ligase complexes that mediate the ubiquitination of proteins involved in cell cycle progression, DNA repair and other processes. In the DCX complex (DDB1-Cul4-x-box), Cullin-4A serves as a scaffold that organizes the DDB1-X-box recognition subunits with the Rbx1 subunit and contributes to catalysis through positioning of the substrate and an E2 ubiquitin-conjugating enzyme. *In vivo*, the E3 ubiquitin ligase activity of the SCF complex is dependent on the neddylation of the cullin subunit, though neddylation may be dispensable in some *in vitro* reactions.

References:

1. Fischer, E.S., *et al.* (2014) Nature **512**:49.
2. He, Y.J., *et al.* (2006) Genes Dev. **20**:2949.
3. Ito, T., *et al.* (2010) Science **327**:1345.
4. Wang, H., *et al.* (2006) Mol. Cell **22**:383.