

DESCRIPTION

Source *Spodoptera frugiperda*, Sf 21 (baculovirus)-derived human CUL4A/RBX1 Complex protein
Met1 - Ala759 with a N-terminal 10-His Sumo tag (CUL4A), Met1 - His108 (RBX1)
Accession # Q13619.3 (CUL4A), P62877.1 (RBX1)

Predicted Molecular Mass 94 kDa (CUL4A), 12 kDa (RBX1)

SPECIFICATIONS

Activity Typical enzyme concentration to support in vitro conjugation will depend on experimental conditions.

Purity >85%, by SDS-PAGE under reducing conditions and visualized by Colloidal Coomassie® Blue stain.

Formulation Supplied as a solution in HEPES, NaCl, Glycerol and DTT. 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.

- 6 months from date of receipt, -70 °C as supplied.
- 3 months, -70 °C under sterile conditions after opening.

BACKGROUND

Cullin-4A (CUL4A) is a core component of multiple cullin-RING type E3 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) CUL4A 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 DCX complex is dependent on neddylation of the cullin subunit, though neddylation may be dispensable for some in vitro reactions.

References:

1. Baek K., *et al.* (2020) *Nature* **578**: 461.
2. Fischer E.S., *et al.* (2014) *Nature* **512**: 49.
3. He Y.J., *et al.* (2006) *Genes Dev.* **20**: 2949.
4. Ito T., *et al.* (2010) *Science* **327**: 1345.
5. Wang H., *et al.* (2006) *Mol. Cell* **22**: 383.