

Recombinant Human CSN5 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP50229

Size: 10ug, 100ug

Protein Name: COP9 signalosome complex subunit 5 (SGN5) (Signalosome subunit 5) (EC 3.4.-.-) (Jun activation domain-binding protein 1)

Synonym: COPS5, CSN5, JAB1

UniProt ID: Q92905

UniProt Link: www.uniprot.org/uniprotkb/Q92905/entry

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 334 AA

Molecular Weight: 38 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MAASGSGMAQKTWELANNMQEAQSIDEIYKYDKKQQQEILAAKPWTKDHHYFKYCKISALALLKMV
MHARSGGNLEVMGLMLGKVDGETMIIMDSFALPVEGTETRVNAQAAAYEYMAAYIENAKQVGRLEN
AIGWYHSHPGYGCWLSGIDVSTQMLNQQFQEPFVAVVIDPTRTISAGKVNLGAFRTYPKGYKPPDE
GPSEYQTIPLNKIEDFGVHCKQYYALEVSYFKSSLDRLLELLWNKYWVNTLSSSSLLTNADYTTGQ
VFDLSEKLEQSEAQLGRGSFMLGLETHDRKSEDKLAKATRDCKTTIEAIHGLMSQVIKDKLFNQINIS

3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

5. Product Description

This product is recombinant COP9 signalosome complex subunit 5 (SGN5) (Signalosome subunit 5) (EC 3.4.-.-) (Jun activation domain-binding protein 1) produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

Protein Function: Probable protease subunit of the COP9 signalosome complex (CSN), a complex involved in various cellular and developmental processes. The CSN complex is an essential regulator of the ubiquitin (Ubl) conjugation pathway by mediating the deneddylation of the cullin subunits of the SCF-type E3 ligase complexes, leading to decrease the Ubl ligase activity of SCF-type complexes such as SCF, CSA or DDB2. The complex is also involved in phosphorylation of p53/TP53, c-jun/JUN, IκappaBα/NFKBIA, ITPK1 and IRF8, possibly via its association with CK2 and PKD kinases. CSN-dependent phosphorylation of TP53 and JUN promotes and protects degradation by the Ubl system, respectively. In the complex, it probably acts as the catalytic center that mediates the cleavage of Nedd8 from cullins. It however has no metalloprotease activity by itself and requires the other subunits of the CSN complex. Interacts directly with a large number of proteins that are regulated by the CSN complex, confirming a key role in the complex. Promotes the proteasomal degradation of BRSK2.

Subcellular Localization: Cytoplasm, cytosol . Nucleus . Cytoplasm, perinuclear region . Cytoplasmic vesicle, secretory vesicle, synaptic vesicle . Note=Nuclear localization is diminished in the presence of IFIT3.

6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.