

Recombinant Human ELOB Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP50279

Size: 10ug, 100ug

Protein Name: Elongin-B (EloB) (Elongin 18 kDa subunit) (RNA polymerase II transcription factor SIII subunit B) (SIII p18) (Transcription elongation factor B polypeptide 2)

Synonym: ELOB, TCEB2

UniProt ID: Q15370

UniProt Link: www.uniprot.org/uniprotkb/Q15370/entry

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 118 AA

Molecular Weight: 13 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MDVFLMIRRHKTTIFTDAKESSTVFELKRIVEGILKRPPDEQRLYKDDQLLDDGKTLGECGFTSQ TAR
PQAPATVGLAFRADDTFEALCIEPFSSPPELPDVMKPQDSGSSANEQAVQ

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 Elongin-B (EloB) (Elongin 18 kDa subunit) (RNA polymerase II transcription factor SIII subunit B) (SIII p18) (Transcription elongation factor B polypeptide 2) 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: SIII, also known as elongin, is a general transcription elongation factor that increases the RNA polymerase II transcription elongation past template-encoded arresting sites. Subunit A is transcriptionally active and its transcription activity is strongly enhanced by binding to the dimeric complex of the SIII regulatory subunits B and C (elongin BC complex) (PubMed:7638163). In embryonic stem cells, the elongin BC complex is recruited by EPOB to Polycomb group (PcG) target genes in order generate genomic region that display both active and repressive chromatin properties, an important feature of pluripotent stem cells (By similarity).; Core component of multiple cullin-2 and cullin-5-RING E3 ubiquitin-protein ligase complexes (ECS complexes), which mediate the ubiquitination of target proteins (PubMed:10205047, PubMed:12004076, PubMed:12050673, PubMed:15590694, PubMed:26138980, PubMed:29775578, PubMed:29779948, PubMed:33268465, PubMed:37844242, PubMed:38326650, PubMed:39039081, PubMed:35512830, PubMed:39039081, PubMed:40440427, PubMed:40963025). By binding to BC-box motifs it seems to link target recruitment subunits, like VHL and members of the SOCS box family, to Cullin/RBX1 modules that activate E2 ubiquitination enzymes (PubMed:10205047, PubMed:12004076, PubMed:12050673, PubMed:15590694). Component the von Hippel-Lindau ubiquitination complex CBC(VHL) (PubMed:10205047, PubMed:12004076, PubMed:12050673, PubMed:15590694). A number of ECS complexes (containing either KLHDC2, KLHDC3, KLHDC10, APPBP2, FEM1A, FEM1B or FEM1C as substrate-recognition component) are part of the DesCEND (destruction via C-end degrons) pathway, which recognizes a C-degron located at the extreme C terminus of target proteins, leading to their ubiquitination and degradation (PubMed:26138980, PubMed:29775578, PubMed:29779948, PubMed:36805027, PubMed:37844242, PubMed:38177675). The ECS(ASB9) complex mediates ubiquitination and degradation of CKB (PubMed:33268465). As part of a multisubunit ubiquitin ligase complex, polyubiquitinates monoubiquitinated POLR2A (PubMed:19920177). ECS(LRR1) ubiquitinates MCM7 and promotes CMG replisome disassembly by VCP and chromatin extraction during S-phase (By similarity). As part of the ECS(RAB40C) complex, mediates ANKRD28 ubiquitination and degradation, thereby inhibiting protein phosphatase 6 (PP6) complex activity and focal adhesion assembly during cell migration (PubMed:35512830). The ECS(ASB7) complex acts a negative regulator of H3K9me3 histone mark by mediating ubiquitination and degradation of SUV39H1 (PubMed:40440427). As part of the ECS(LRRC58) complex, mediates CDO1 ubiquitination and degradation, regulating cysteine catabolism (PubMed:40963025).; (Microbial infection) Following infection by HIV-1 virus, component of a cullin-5-RING E3 ubiquitin-protein ligase complex (ECS complex) hijacked by the HIV-1 Vif protein, which catalyzes ubiquitination and degradation of APOBEC3F and APOBEC3G (PubMed:18562529, PubMed:20532212, PubMed:22190037, PubMed:24225024, PubMed:24402281, PubMed:36754086). The complex can also ubiquitinate APOBEC3H to some extent (PubMed:37640699).

Subcellular Localization: Nucleus .

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.



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- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.