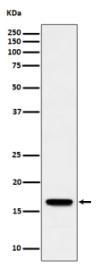
ELOB Antibody / Elongin B [clone 30E89] (FY12689)

Catalog No.	Formulation	Size
FY12689	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA	100 ul

Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	2-3 weeks
Species Reactivity	Human
Format	Liquid
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	30E89
Purity	Affinity-chromatography
Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
UniProt	Q15370
Applications	Western Blot : 1:500-1:2000
Limitations	This ELOB antibody is available for research use only.



Western blot analysis of TCEB2/ELOB expression in human Jurkat cell lysate using ELOB antibody. Western blot shows a band at ~16 kDa, higher than the calculated ~13 kDa, consistent with the known slower SDS-PAGE migration of small ubiquitin-like proteins such as Elongin B.

Description

ELOB antibody detects elongin B, a protein encoded by the ELOB gene. Elongin B is part of the elongin complex, which also includes elongin C and elongin A. This complex functions as a transcription elongation factor by increasing the rate of RNA polymerase II transcription through transiently pausing sites. Elongin B also acts as a subunit of ubiquitin ligase complexes, linking it to protein degradation pathways.

ELOB antibody is widely applied in transcription research, ubiquitin signaling, and cancer biology. As part of the elongin complex, elongin B facilitates efficient transcription of protein coding genes. In addition, elongin B interacts with Cullin 2 and von Hippel Lindau tumor suppressor protein to form an E3 ubiquitin ligase complex, which targets hypoxia inducible factor alpha for degradation. By detecting ELOB, researchers can study both transcriptional regulation and proteostasis.

Western blotting with ELOB antibody detects protein expression in nuclear extracts. Immunohistochemistry maps ELOB distribution in proliferative tissues, while immunofluorescence shows localization in the nucleus and cytoplasm. These assays make ELOB antibody a versatile tool for understanding transcription and protein turnover.

ELOB plays critical roles in hypoxia signaling. The elongin complex with von Hippel Lindau protein mediates degradation of HIF1 alpha under normoxia, maintaining cellular oxygen sensing. Dysregulation of this pathway contributes to tumorigenesis and adaptation to hypoxia. By applying ELOB antibody, scientists can investigate how ubiquitin ligase complexes control oxygen sensing and cancer biology.

Beyond hypoxia signaling, elongin B supports general protein degradation pathways, acting as a ubiquitin like protein that enhances complex stability. It also contributes to viral replication, as some viruses hijack elongin containing complexes for their own protein turnover. The antibody thus supports studies in virology as well as cell biology.

Mutations or dysregulation of ELOB are linked to cancer progression and altered stress responses. Because of its role in both transcription and protein degradation, elongin B integrates signaling networks that control cell survival and growth. ELOB antibody from NSJ Bioreagents provides strong specificity for studying this multifunctional protein across basic and translational research contexts.

Application Notes

Optimal dilution of the ELOB antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human TCEB2 was used as the immunogen for the ELOB antibody.

Storage

Store the ELOB antibody at -20oC.