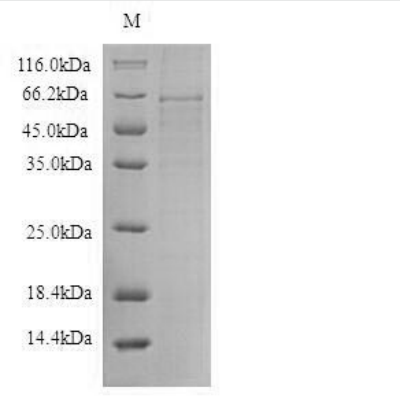
Recombinant Thioredoxin-interacting protein (TXNIP)

Product Code	CSB-CF880966HUa6
Relevance	May act as an oxidative stress mediator by inhibiting thioredoxin activity or by limiting its bioavailability. Interacts with COPS5 and restores COPS5-induced suppression of CDKN1B stability, blocking the COPS5-mediated translocation of CDKN1B from the nucleus to the cytoplasm. Functions as a transcriptional repressor, possibly by acting as a bridge molecule between transcription factors and corepressor complexes, and over-expression will induce G0/G1 cell cycle arrest. Required for the maturation of natural killer cells. Acts as a suppressor of tumor cell growth. Inhibits the proteasomal degradation of DDIT4, and thereby contributes to the inhibition of the mammalian target of rapamycin complex 1 (mTORC1).
Abbreviation	Recombinant Human TXNIP protein
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	Q9H3M7
Product Type	Transmembrane Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	MVMFKKIKSFEVVFNDPEKVYGSGEKVAGRVIVEVCEVTRVKAVRILACGVAK VLWMQGSQQCKQTSEYLRYEDTLLLEDQPTGENEMVIMRPGNKYEYKFGFEL PQGPLGTSFKGKYGCVDYWVKAFLDRPSQPTQETKKNFEVVDLVDVNTPDLM APVSAKKEKKVSCMFIPDGRVSVSARIDRKGFCEGDEISIHADFENTCSRIVVP KAAIVARHTYLANGQTKVLTQKLSSVRGNHIISGTCASWRGKSLRVQKIRPSIL GCNILRVEYSLLIYVSVPGSKKVILDLPLVIGSRSGLSSRTSSMASRTSSEMSW VDLNIPDTPEAPPCYMDVIPEDHRLESPTTPLLDDMDGSQDSPIFMYAPEFKF MPPPTYTEVDPCILNNNVQ
Research Area	others
Source	in vitro E.coli expression system
Target Names	TXNIP
Protein Names	Thioredoxin-binding protein 2 Vitamin D3 up-regulated protein 1
Expression Region	1-391aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-B2M-tagged

Mol. Weight	57.7kDa
Protein Length	Full Length

Image



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

The expression region of this recombinant Human TXNIP covers amino acids 1-391. The expected molecular weight for the TXNIP protein is calculated to be 57.7 kDa. This TXNIP recombinant protein is manufactured in in vitro e.coli expression system. The N-terminal 6xHis-B2M tag was fused into the coding gene segment of TXNIP, making it easier to detect and purify the TXNIP recombinant protein in the later stages of expression and purification.

Thioredoxin-interacting protein (TXNIP) is a protein primarily associated with cellular oxidative stress, glucose metabolism, and disease development. In the field of oxidative stress, TXNIP regulates the redox balance within cells by interacting with thioredoxin, playing a crucial role in maintaining cellular homeostasis. Regarding glucose metabolism, TXNIP is a key regulatory factor in glucose metabolism, participating in insulin secretion and the modulation of cellular sensitivity to glucose. Besides, the association of TXNIP with various diseases, including diabetes, cardiovascular diseases, and cancer, has garnered widespread attention.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

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