Recombinant SEBP2 protein (His tag)

Catalog Number	545758
Synonyms	SECIS-binding protein 2
Species	Human
Expression System	E. coli
Accession	Q96T21
Molecular Weight	Predictes a molecular mass of 20.41 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 20 kDa band.

Product Information

Sequence Region	623-785
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 623-785 aa (Q96T21) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	This product is a recombinant protein fragment of Selenocysteine insertion sequence-binding protein 2 (SECISBP2), spanning residues 623-785. Derived from Homo sapiens, this 163-amino acid fragment is engineered for stability and solubility, making it an ideal tool for structural studies and biochemical assays related to selenoprotein synthesis. SECISBP2 is an mRNA-binding protein that plays a critical role in selenoprotein biosynthesis by binding to the SECIS element in the 3'-UTR of selenoprotein mRNAs. It facilitates the incorporation of selenocysteine at UGA codons through a coordinated mechanism: SECISBP2 binds the SECIS sequence upon ribosome stalling at UGA, interacts with the 40S ribosomal subunit via RPS27A/eS31, and collaborates with GTP-bound EEFSEC to deliver selenocysteinyl-tRNA(Sec) for peptide bond formation and elongation. The full-length protein localizes to the nucleus (isoform 1) or mitochondria (isoform 2), underscoring its importance in cellular redox regulation and metabolic processes.