Recombinant TIM50 protein (His tag)

Catalog Number	534832
Synonyms	Small C-terminal domain Phosphatase protein 4
Species	Caenorhabditis elegans
Expression System	E. coli
Accession	Q22647
Gene ID	179481
Molecular Weight	Predictes a molecular mass of 32.63 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 34 kDa band.

Product Information

Sequence Region	189-452
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 189-452 aa (Q22647) 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	Recombinant Mitochondrial import inner membrane translocase subunit TIM50 (Small C-terminal domain Phosphatase protein 4) fragment (residues 189-452) from Caenorhabditis elegans. This 264-amino acid fragment fully encompasses the FCP1 homology domain, making it an ideal tool for investigating mitochondrial protein import mechanisms and domain-specific functions in cellular research. The full-length TIM50 protein, encoded by the scpl-4 gene in Caenorhabditis elegans, is an essential component of the TIM23 complex. This complex mediates the translocation of transit peptide-containing proteins across the mitochondrial inner membrane, a critical process for mitochondrial biogenesis and function. The protein is localized to the mitochondrial inner membrane as a single-pass membrane protein, where it plays a key role in protein import machinery. The TIM23 complex is fundamental to cellular energy production and mitochondrial homeostasis, making TIM50 an important target for studying mitochondrial transport processes and related cellular functions.