Recombinant TIM50 protein (His tag)

Catalog Number	540418
Species	Human
Expression System	E. coli
Accession	Q3ZCQ8
Molecular Weight	Predictes a molecular mass of 32.49 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 34 kDa band.

Product Information

Sequence Region	87-353
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, 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 87-353 aa (Q3ZCQ8) 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 Human Mitochondrial import inner membrane translocase subunit TIM50 (residues 87-353) is a high-purity protein fragment encompassing the FCP1 homology domain. This product enables focused investigation of mitochondrial protein import mechanisms and domain-specific functions, serving as an essential tool for structural and functional studies in cellular biology. The full-length TIM50 protein, encoded by the TIMM50 gene, is an essential component of the TIM23 complex that mediates translocation of transit peptide-containing proteins across the mitochondrial inner membrane. Located in the mitochondrial inner membrane as a single-pass membrane protein, TIM50 plays a critical role in mitochondrial protein import machinery. While in vitro studies have detected phosphatase activity, its physiological relevance remains uncertain. An alternative isoform localizes to nuclear speckles and may participate in snRNP and SMN release from Cajal bodies, suggesting additional regulatory functions beyond mitochondrial import.