Recombinant TIM14 protein (His tag)

Catalog Number	536628
Species	Drosophila melanogaster
Expression System	E. coli
Accession	Q9VTJ8
Gene ID	39294
Molecular Weight	Predictes a molecular mass of 12.44 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 12 kDa band.

Product Information

Sequence Region	23-118
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 23-118 aa (Q9VTJ8) 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 Drosophila melanogaster Mitochondrial import inner membrane translocase subunit TIM14 (residues 23-118) is a high-purity protein fragment encompassing the complete J-domain (residues 66-118). This fragment serves as an essential tool for investigating mitochondrial protein import mechanisms and chaperone functions in cellular energy metabolism. The full-length Mitochondrial import inner membrane translocase subunit TIM14, encoded by the Tim14 gene, functions as a probable component of the PAM (Presequence Translocase-Associated Motor) complex. This complex facilitates ATP-dependent translocation of transit peptide-containing proteins from the inner mitochondrial membrane into the mitochondrial matrix. TIM14 likely acts as a co-chaperone that stimulates ATP-dependent activity, playing a critical role in mitochondrial protein import machinery. The protein localizes specifically to the mitochondrial inner membrane as a single-pass membrane protein, positioning it strategically for its role in mitochondrial biogenesis and function.