Recombinant TIM9 protein (His tag)

Catalog Number	543958
Species	Human
Expression System	E. coli
Accession	Q9Y5J7
Molecular Weight	Predictes a molecular mass of 11.90 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 12 kDa band.

Product Information

Sequence Region	2-89
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 2-89 aa (Q9Y5J7) 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 Tim9 (TIMM9) fragment (residues 2-89) is a high-quality protein product designed for structural and biochemical studies. This fragment represents a stable, soluble unit of the chaperone, ideal for investigating mitochondrial protein import mechanisms and intermembrane space dynamics. The full-length Mitochondrial import inner membrane translocase subunit Tim9 functions as a mitochondrial intermembrane chaperone that facilitates the import and insertion of multi-pass transmembrane proteins into the inner membrane. It also assists in transferring beta-barrel precursors from the TOM complex to the outer membrane's sorting and assembly machinery (SAM complex). By protecting hydrophobic precursors from aggregation, Tim9 ensures their safe transit through the mitochondrial intermembrane space. Located in the inner membrane as a peripheral protein on the intermembrane side, it plays a critical role in maintaining mitochondrial protein homeostasis and integrity, as supported by scientific evidence (PubMed:14726512, PubMed:11489896).