Recombinant TIM44 protein (His tag)

Catalog Number	544111
Species	Human
Expression System	E. coli
Accession	O43615
Molecular Weight	Predictes a molecular mass of 19.78 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 22 kDa band.

Product Information

Sequence Region	294-452
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 294-452 aa (O43615) 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 TIM44 (TIMM44) Fragment (aa 294-452) – a high-quality, stable, and soluble protein fragment designed for structural and biochemical studies. This product enables researchers to investigate the essential role of TIM44 in mitochondrial protein import machinery with enhanced experimental applicability. Mitochondrial import inner membrane translocase subunit TIM44 is an essential component of the PAM complex, which facilitates the ATP-dependent translocation of transit peptide-containing proteins from the inner mitochondrial membrane into the matrix. It functions by recruiting mitochondrial HSP70 to drive protein import using ATP hydrolysis as an energy source. The protein is localized to the mitochondrial inner membrane as a peripheral membrane protein on the matrix side, and is also found in the mitochondrial matrix. This fragment (residues 294-452) represents a computationally selected stable and soluble region, making it ideal for elucidating structural and functional aspects of TIM44's role in mitochondrial biogenesis.