Recombinant TIM8A protein (His tag)

Catalog Number	544125
Synonyms	Deafness dystonia protein 1; X-linked deafness dystonia protein
Species	Human
Expression System	E. coli
Accession	O60220
Molecular Weight	Predictes a molecular mass of 12.65 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 13 kDa band.

Product Information

Sequence Region	1-97
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 1-97 aa (O60220) 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 Tim8 A (TIMM8A) fragment (residues 1-97) is a high-purity protein designed for structural and biochemical studies. This fragment represents a stable, soluble unit of the Deafness dystonia protein 1, essential for mitochondrial protein import and linked to neurological development, making it ideal for investigating mitochondrial transport mechanisms and related disorders. The full-length TIMM8A protein functions as a mitochondrial intermembrane chaperone that facilitates the import and insertion of multi-pass transmembrane proteins into the mitochondrial inner membrane. It is critical for transferring beta-barrel precursors from the TOM complex to the SAM complex in the outer membrane, protecting hydrophobic precursors from aggregation and guiding them through the intermembrane space. Located in the mitochondrial inner membrane as a peripheral protein on the intermembrane side, TIMM8A is part of complexes like TIMM8-TIMM13, which mediate the import of specific proteins such as TIMM23, SLC25A12/ARALAR1, and SLC25A13/ARALAR2. Its role is vital for normal neurologic development, with implications in conditions like X-linked deafness dystonia.