Recombinant IF3M protein (His tag)

Catalog Number	548222
Synonyms	IF-3(Mt); IF-3Mt; IF3(mt); IF3mt
Species	Human
Expression System	E. coli
Accession	Q9H2K0
Molecular Weight	Predictes a molecular mass of 25.27 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 26 kDa band.

Product Information

Sequence Region	75-278
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 75-278 aa (Q9H2K0) 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	This recombinant protein product features a stable and soluble fragment (residues 75-278) of the human mitochondrial translation initiation factor IF-3 (IF-3(Mt)). It is designed for structural and biochemical studies, offering researchers a functional unit that supports investigations into mitochondrial protein synthesis initiation mechanisms. The full-length mitochondrial translation initiation factor IF-3, encoded by the MTIF3 gene in Homo sapiens, plays a critical role in mitochondrial protein synthesis. It binds specifically to the 28S ribosomal subunit, shifting the equilibrium of 55S ribosomes toward free 39S and 28S subunits. This action enhances the availability of 28S subunits, facilitating the initiation of protein synthesis within mitochondria. The protein is localized exclusively to the mitochondrion, underscoring its importance in organelle-specific translational regulation and cellular energy production.