Recombinant EFTS protein (His tag)

Catalog Number	536622
Synonyms	EF-Ts; EF-TsMt
Species	Drosophila melanogaster
Expression System	E. coli
Accession	Q9VJC7
Gene ID	35060
Molecular Weight	Predictes a molecular mass of 34.80 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 37 kDa band.

Product Information

Sequence Region	19-318
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 19-318 aa (Q9VJC7) 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 Elongation factor Ts, mitochondrial (EF-TsMt) fragment (residues 19-318) from Drosophila melanogaster. This 300-amino acid fragment represents a stable, soluble unit ideal for studying mitochondrial translation mechanisms, particularly EF-Ts's role in GDP-GTP exchange with EF-Tu during protein synthesis. Elongation factor Ts, mitochondrial (EF-TsMt) is a crucial regulatory protein in mitochondrial translation. Its primary function is to associate with the EF-Tu•GDP complex and catalyze the exchange of GDP for GTP, reactivating EF-Tu for subsequent rounds of aminoacyl-tRNA delivery to the ribosome. EF-Ts remains bound to the aminoacyl-tRNA•EF-Tu•GTP complex until GTP hydrolysis occurs during ribosomal translation. This protein is localized specifically within the mitochondrion, where it supports the organelle's protein synthesis machinery essential for oxidative phosphorylation and cellular energy production.