Recombinant GRPE2 protein (His tag)

Catalog Number	549033
Synonyms	Mt-GrpE#2
Species	Human
Expression System	E. coli
Accession	Q8TAA5
Molecular Weight	Predictes a molecular mass of 20.95 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 23 kDa band.

Product Information

Sequence Region	56-225
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 56-225 aa (Q8TAA5) 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 GrpE protein homolog 2, mitochondrial (Mt-GrpE#2) fragment (amino acids 56-225) is a high-quality, stable protein designed for structural and functional studies. This fragment, derived from the human GRPEL2 gene, represents a soluble unit ideal for investigating mitochondrial protein import and chaperone regulation mechanisms. The full-length Mt-GrpE#2 protein, encoded by the GRPEL2 gene in Homo sapiens, is an essential component of the PAM complex located in the mitochondrial matrix. It facilitates ATP-dependent translocation of transit peptide-containing proteins from the inner mitochondrial membrane into the matrix. Mt-GrpE#2 regulates the nucleotide-dependent binding of mitochondrial HSP70 to substrate proteins, stimulates the ATPase activity of mt-HSP70, and may modulate the interconversion between oligomeric (inactive) and monomeric (active) forms of mt-HSP70, playing a critical role in mitochondrial protein homeostasis and import processes.