Recombinant RM42 protein (His tag)

Catalog Number	548620
Synonyms	39S ribosomal protein L31, mitochondrial; L31mt; MRP-L31; 39S ribosomal protein L42, mitochondrial; L42mt; MRP-L42
Species	Human
Expression System	E. coli
Accession	Q9Y6G3
Molecular Weight	Predictes a molecular mass of 14.50 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 15 kDa band.

Product Information

Sequence Region	35-142
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, 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 35-142 aa (Q9Y6G3) 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 Large Ribosomal Subunit Protein mL42 (Fragment 35-142) is a high-purity, stable protein fragment designed for structural and biochemical studies. This 108-amino acid fragment represents a soluble and well-folded region of the mitochondrial ribosomal protein, ideal for investigating mitochondrial translation mechanisms. The full-length Large Ribosomal Subunit Protein mL42 (also known as MRP-L31, MRP-L42) is a component of the mitochondrial ribosome, specifically the 39S large subunit, and is encoded by the MRPL42 gene. It localizes to the mitochondrion, as supported by multiple experimental evidences, playing a critical role in mitochondrial protein synthesis. Mitochondrial ribosomes are essential for synthesizing proteins within the organelle, which are crucial for oxidative phosphorylation and cellular energy production. This protein's involvement underscores its importance in mitochondrial function and its potential relevance to mitochondrial-related disorders.