Recombinant RM51 protein (His tag)

Catalog Number	548699
Synonyms	39S ribosomal protein L51, mitochondrial; L51mt; MRP-L51; bMRP-64; bMRP64
Species	Human
Expression System	E. coli
Accession	Q4U2R6
Molecular Weight	Predictes a molecular mass of 13.25 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 13 kDa band.

Product Information

Sequence Region	33-128
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 33-128 aa (Q4U2R6) 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 mL51 (MRPL51) fragment (residues 33-128) is a high-purity, stable protein designed for structural and biochemical studies. This 96-amino acid fragment represents a soluble and well-folded region of the mitochondrial ribosomal protein, ideal for investigating ribosome assembly and mitochondrial translation mechanisms. The full-length Large ribosomal subunit protein mL51 (also known as 39S ribosomal protein L51, mitochondrial, L51mt, MRP-L51, bMRP-64, or bMRP64) is encoded by the MRPL51 gene in humans. It is localized to the mitochondrion, as confirmed by multiple experimental studies, where it functions as a component of the mitochondrial ribosome (mitoribosome). Mitochondrial ribosomes are essential for translating proteins encoded by the mitochondrial genome, which are critical for oxidative phosphorylation and cellular energy production. This recombinant fragment provides a valuable tool for studying the structural and functional roles of MRPL51 in mitochondrial protein synthesis and its implications in mitochondrial dysfunction.