Recombinant RM38 protein (His tag)

Catalog Number	547937
Synonyms	39S ribosomal protein L38, mitochondrial; L38mt; MRP-L38
Species	Human
Expression System	E. coli
Accession	Q96DV4
Molecular Weight	Predictes a molecular mass of 42.68 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 45 kDa band.

Product Information

Sequence Region	32-380
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 32-380 aa (Q96DV4) 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 mL38 (MRPL38) fragment (residues 32-380) is a high-quality protein preparation designed for mitochondrial ribosome research. This 349-amino acid fragment represents a stable, soluble domain optimized for structural studies and functional assays, providing researchers with a reliable tool for investigating mitochondrial protein synthesis mechanisms. The full-length Large ribosomal subunit protein mL38 (also known as 39S ribosomal protein L38, mitochondrial) is a component of the mitochondrial ribosome, specifically localized to the mitochondrion as confirmed by multiple experimental studies. As MRP-L38, this protein plays an essential role in mitochondrial protein synthesis, contributing to the assembly and function of the large ribosomal subunit within mitochondria. Mitochondrial ribosomes are crucial for synthesizing proteins encoded by the mitochondrial genome, which are essential for oxidative phosphorylation and cellular energy production. The specific subcellular localization to mitochondria underscores its importance in maintaining mitochondrial function and cellular metabolism.