Recombinant RM53 protein (His tag)

Catalog Number	538697
Synonyms	39S ribosomal protein L53, mitochondrial; L53mt; MRP-L53
Species	Human
Expression System	E. coli
Accession	Q96EL3
Molecular Weight	Predictes a molecular mass of 13.76 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 14 kDa band.

Product Information

Sequence Region	1-112
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 1-112 aa (Q96EL3) 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 mL53 (MRPL53) fragment (residues 1-112) is a high-quality protein product designed for structural and biochemical studies. This fragment was computationally optimized for stability and solubility, providing researchers with a reliable tool for investigating mitochondrial ribosome function and assembly. Large ribosomal subunit protein mL53, also known as MRP-L53, is a mitochondrial ribosomal protein encoded by the MRPL53 gene. According to UniProt entry Q96EL3, this protein localizes specifically to the mitochondrion, where it functions as a component of the 39S large ribosomal subunit. Mitochondrial ribosomes are essential for protein synthesis within mitochondria, playing critical roles in cellular energy production and metabolism. The subcellular localization to mitochondria has been experimentally verified through multiple studies.