Recombinant RM23 protein (His tag)

Catalog Number	542743
Synonyms	39S ribosomal protein L23, mitochondrial; L23mt; MRP-L23; L23 mitochondrial-related protein; Ribosomal protein L23-like
Species	Human
Expression System	E. coli
Accession	Q16540
Molecular Weight	Predictes a molecular mass of 19.44 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 19 kDa band.

Product Information

Sequence Region	1-153
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 1-153 aa (Q16540) 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 uL23m (39S ribosomal protein L23, mitochondrial), corresponding to amino acids 1-153, is a high-quality protein fragment designed for structural and biochemical studies. This fragment was computationally optimized for stability and solubility, making it ideal for investigating mitochondrial ribosome assembly and function. The full-length Large ribosomal subunit protein uL23m, encoded by the MRPL23 gene, is a component of the mitochondrial ribosome, specifically the 39S large subunit. It is localized to the mitochondrion, as supported by multiple experimental evidences (e.g., PubMed:25278503, PubMed:25838379, PubMed:28892042), where it plays a critical role in mitochondrial protein synthesis. Mitochondrial ribosomes are essential for producing proteins involved in oxidative phosphorylation, and uL23m contributes to ribosome structure and function, supporting cellular energy production and metabolic homeostasis.