Recombinant RM04 protein (His tag)

Catalog Number	549637
Synonyms	39S ribosomal protein L4, mitochondrial; L4mt; MRP-L4
Species	Human
Expression System	E. coli
Accession	Q9BYD3
Molecular Weight	Predictes a molecular mass of 32.04 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 32 kDa band.

Product Information

Sequence Region	44-311
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 44-311 aa (Q9BYD3) 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 uL4m (39S Ribosomal Protein L4, Mitochondrial), encompassing residues 44-311, is a high-purity, stable fragment designed for structural and biochemical studies. This product offers researchers a soluble and functional unit ideal for investigating mitochondrial ribosome assembly and function. The full-length Large Ribosomal Subunit Protein uL4m, encoded by the MRPL4 gene, is a mitochondrial protein localized to the mitochondrion, as supported by multiple experimental evidences (UniProt ID: Q9BYD3). As a component of the 39S ribosomal subunit, it plays a critical role in mitochondrial protein synthesis, which is essential for oxidative phosphorylation and cellular energy production. Mitochondrial ribosomal proteins like uL4m are vital for maintaining mitochondrial function and are implicated in various metabolic and neurodegenerative disorders. The provided fragment (residues 44-311) was selected computationally to ensure stability and solubility, facilitating experimental applications without domain-specific annotations.