Recombinant SYPM protein (His tag)

Catalog Number	549547
Synonyms	Prolyl-tRNA synthetase; ProRS; Prolyl-tRNA synthetase 2, mitochondrial
Species	Human
Expression System	E. coli
Accession	Q7L3T8
Molecular Weight	Predictes a molecular mass of 50.81 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 51 kDa band.

Product Information

Sequence Region	38-475
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, 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 38-475 aa (Q7L3T8) 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 Probable Proline--tRNA Ligase, Mitochondrial (PARS2) Fragment (38-475) is a high-purity, stable protein fragment designed for structural and biochemical studies. This 438-amino acid fragment retains key functional regions, offering researchers a soluble and reliable tool to investigate mitochondrial protein synthesis mechanisms. The full-length Probable Proline--tRNA Ligase, Mitochondrial (EC 6.1.1.15) is a human mitochondrial aminoacyl-tRNA synthetase that specifically catalyzes the attachment of proline to its cognate tRNA, a crucial step in mitochondrial protein synthesis. The enzyme functions through a two-step mechanism: first activating proline with ATP to form Pro-AMP, then transferring the amino acid to the acceptor end of tRNA(Pro). Located in the mitochondrial matrix, this enzyme plays an essential role in maintaining mitochondrial translation fidelity and energy production. The recombinant fragment (38-475) represents a computationally optimized, stable unit suitable for detailed mechanistic and structural analyses.