Recombinant PTCD1 protein (His tag)

Catalog Number	541846
Species	Human
Expression System	E. coli
Accession	O75127
Molecular Weight	Predictes a molecular mass of 30.54 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 31 kDa band.

Product Information

Sequence Region	441-700
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 441-700 aa (O75127) 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 PTCD1 Fragment (441-700) - A high-quality recombinant protein fragment of Pentatricopeptide repeat-containing protein 1, mitochondrial, specifically designed for structural and biochemical studies. This 260-amino acid fragment represents a stable and soluble unit ideal for investigating mitochondrial tRNA regulation and protein function. Pentatricopeptide repeat-containing protein 1 (PTCD1) is a mitochondrial protein that plays a crucial role in regulating mitochondrial function. It is implicated in the negative regulation of leucine tRNA levels and mitochondria-encoded proteins, as well as affecting COX activity. The protein also influences the 3'-processing of mitochondrial tRNAs, making it essential for understanding mitochondrial gene expression and protein synthesis. PTCD1 is localized specifically within the mitochondrion, primarily in the mitochondrial matrix, where it performs its regulatory functions. The full-length protein's involvement in mitochondrial tRNA processing and protein regulation highlights its importance in cellular energy production and mitochondrial homeostasis.