Recombinant COX19 protein (His tag)

Catalog Number	542791
Synonyms	hCOX19
Species	Human
Expression System	E. coli
Accession	Q49B96
Molecular Weight	Predictes a molecular mass of 11.91 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 12 kDa band.

Product Information

Sequence Region	2-90
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 2-90 aa (Q49B96) 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 Cytochrome c oxidase assembly protein COX19 (hCOX19) fragment (residues 2-90) is a high-purity protein designed for investigating copper homeostasis regulation and mitochondrial cytochrome c oxidase assembly. This fragment fully encompasses the CHCH functional domain, making it an ideal tool for domain-specific functional studies. The full-length hCOX19 protein plays a critical role in cellular copper homeostasis by transducing an SCO1-dependent redox signal from mitochondria to ATP7A. It may also contribute to mitochondrial cytochrome c oxidase assembly. The protein exhibits dynamic subcellular localization, partitioning between the cytosol and mitochondrial compartments in a copper-dependent manner, with cytosolic enrichment occurring during elevated intracellular copper concentrations. This copper-responsive localization highlights its importance as a regulatory component in maintaining cellular copper balance.