Recombinant SCO2 protein (His tag)

Catalog Number	541797
Species	Human
Expression System	E. coli
Accession	O43819
Molecular Weight	Predictes a molecular mass of 23.22 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 24 kDa band.

Product Information

Sequence Region	79-266
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 79-266 aa (O43819) 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 SCO2 Protein Fragment (aa 79-266) is a high-purity, functional protein designed for studying mitochondrial copper metabolism and cytochrome c oxidase assembly. This 188-amino acid fragment encompasses the complete thioredoxin domain, making it an ideal tool for investigating redox regulation and copper incorporation mechanisms in respiratory chain research. Protein SCO2 homolog is a mitochondrial inner membrane copper metallochaperone essential for cytochrome c oxidase biogenesis. It facilitates copper incorporation into the Cu(A) site of cytochrome c oxidase subunit II (MT-CO2/COX2) and may function as a thiol-disulfide oxidoreductase to regulate cysteine redox states in SCO1 during COX2 maturation. As a single-pass membrane protein localized to the mitochondrial inner membrane, SCO2 plays a critical role in cellular respiration and energy production through its involvement in the terminal complex of the mitochondrial electron transport chain.