Recombinant CY1 protein (His tag)

Catalog Number	539732
Synonyms	Complex III subunit 4; Complex III subunit IV; Cytochrome b-c1 complex subunit 4; Ubiquinol-cytochrome-c reductase complex cytochrome c1 subunit; Cytochrome c-1
Species	Human
Expression System	E. coli
Accession	P08574
Molecular Weight	Predictes a molecular mass of 23.66 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 25 kDa band.

Product Information

Sequence Region	85-281
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 85-281 aa (P08574) 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 c1 Fragment (residues 85-281) is a high-purity protein designed for studying the cytochrome c domain. This 197-amino acid fragment encompasses the functional cytochrome c domain (residues 108-209), making it an ideal tool for investigating electron transfer mechanisms in mitochondrial respiration and oxidative phosphorylation research. Cytochrome c1 is a catalytic core subunit of the ubiquinol-cytochrome c oxidoreductase complex (Complex III) in the mitochondrial electron transport chain. As part of the cytochrome b-c1 complex, it plays a crucial role in oxidative phosphorylation by transferring electrons from the Rieske protein's [2Fe-2S] iron-sulfur cluster to cytochrome c. This electron transfer is coupled to proton translocation across the mitochondrial inner membrane during the Q cycle, contributing to the electrochemical gradient that drives ATP synthesis. The full-length protein is localized to the mitochondrial inner membrane as a single-pass membrane protein, where it functions as an essential component of cellular energy production.