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COXIV Isoform 2 Blocking Peptide
Synthetic peptide
Catalog # BP22137a

Specification

COXIV Isoform 2 Blocking Peptide - Product Information

Primary Accession Q96KJ9

COXIV Isoform 2 Blocking Peptide - Additional Information

Gene ID 84701

Other Names
Cytochrome c oxidase subunit 4 isoform 2, mitochondrial, Cytochrome c oxidase subunit IV isoform 2, COX IV-2, COX4I2, COX4L2

Target/Specificity
The synthetic peptide sequence is selected from aa 161-171 of HUMAN COX4I2

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

COXIV Isoform 2 Blocking Peptide - Protein Information

Name COX4I2 (HGNC:16232)

Function
Component of the cytochrome c oxidase, the last enzyme in the mitochondrial electron transport chain which drives oxidative phosphorylation. The respiratory chain contains 3 multisubunit complexes succinate dehydrogenase (complex II, CII), ubiquinol- cytochrome c oxidoreductase (cytochrome b-c1 complex, complex III, CIII) and cytochrome c oxidase (complex IV, CIV), that cooperate to transfer electrons derived from NADH and succinate to molecular oxygen, creating an electrochemical gradient over the inner membrane that drives transmembrane transport and the ATP synthase. Cytochrome c oxidase is the component of the respiratory chain that catalyzes the reduction of oxygen to water. Electrons originating from reduced cytochrome c in the intermembrane space (IMS) are transferred via the dinuclear copper A center (CU(A)) of subunit 2 and heme A of subunit 1 to the active site in subunit 1, a binuclear center (BNC) formed by heme A3 and copper B (CU(B)). The BNC reduces molecular oxygen to 2 water molecules using 4 electrons from cytochrome c in the IMS and 4 protons from the mitochondrial matrix.

Cellular Location

Mitochondrion inner membrane {ECO:0000250|UniProtKB:P00423}; Single-pass membrane protein {ECO:0000250|UniProtKB:P00423}

Tissue Location
Highly expressed in lung.

COXIV Isoform 2 Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

COXIV Isoform 2 Blocking Peptide - Images

COXIV Isoform 2 Blocking Peptide - Background

This protein is one of the nuclear-coded polypeptide chains of cytochrome c oxidase, the terminal oxidase in mitochondrial electron transport.

COXIV Isoform 2 Blocking Peptide - References

Huettemann M.,et al.Gene 267:111-123(2001).
Deloukas P.,et al.Nature 414:865-871(2001).
Shteyer E.,et al.Am. J. Hum. Genet. 84:412-417(2009).