

COXIV Blocking Peptide
Synthetic peptide
Catalog # BP22111a**Specification**

COXIV Blocking Peptide - Product Information

Primary Accession [P19783](#)
Other Accession [P10888](#)

COXIV Blocking Peptide - Additional Information

Gene ID 12857

Other Names

Cytochrome c oxidase subunit 4 isoform 1, mitochondrial, Cytochrome c oxidase polypeptide IV, Cytochrome c oxidase subunit IV isoform 1, COX IV-1, Cox4i1, Cox4, Cox4a

Target/Specificity

The synthetic peptide sequence is selected from aa 135-149 of HUMAN Cox4i1

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 Blocking Peptide - Protein Information

Name Cox4i1

Synonyms Cox4, Cox4a, Coxiv {ECO:0000303|PubMed:3

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; Single-pass membrane protein

COXIV Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

COXIV Blocking Peptide - Images**COXIV 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 Blocking Peptide - References

Grossman L.I., et al. Nucleic Acids Res. 18:6454-6454(1990).
Carter R.S., et al. Arch. Biochem. Biophys. 288:97-106(1991).
Carninci P., et al. Science 309:1559-1563(2005).
Lubec G., et al. Submitted (APR-2007) to UniProtKB.
Park J., et al. Mol. Cell 50:919-930(2013).