

COX7C Antibody (N-term) Blocking peptide
Synthetic peptide
Catalog # BP5560a**Specification**

COX7C Antibody (N-term) Blocking peptide - Product Information

Primary Accession [P15954](#)
Other Accession [NP_001858.1](#)

COX7C Antibody (N-term) Blocking peptide - Additional Information

Gene ID 1350

Other Names

Cytochrome c oxidase subunit 7C, mitochondrial, Cytochrome c oxidase polypeptide VIIc, COX7C

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.

COX7C Antibody (N-term) Blocking peptide - Protein Information

Name COX7C

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

COX7C Antibody (N-term) Blocking peptide - Protocols

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

- [Blocking Peptides](#)

COX7C Antibody (N-term) Blocking peptide - Images

COX7C Antibody (N-term) Blocking peptide - Background

Cytochrome c oxidase (COX), the terminal component of the mitochondrial respiratory chain, catalyzes the electron transfer from reduced cytochrome c to oxygen. This component is a heteromeric complex consisting of 3 catalytic subunits encoded by mitochondrial genes and multiple structural subunits encoded by nuclear genes. The mitochondrially-encoded subunits function in electron transfer, and the nuclear-encoded subunits may function in the regulation and assembly of the complex. This nuclear gene encodes subunit VIIc, which shares 87% and 85% amino acid sequence identity with mouse and bovine COX VIIc, respectively, and is found in all tissues. A pseudogene COX7CP1 has been found on chromosome 13.

COX7C Antibody (N-term) Blocking peptide - References

Sirchia, R., et al. Biol. Chem. 388(5):457-465(2007) Hofmann, S., et al. Cytogenet. Cell Genet. 83 (3-4), 226-227 (1998) Koga, Y., et al. Nucleic Acids Res. 18 (3), 684 (1990) :