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COX5B Antibody (Center) Blocking Peptide

Synthetic peptide
Catalog # BP17385c

Specification

COX5B Antibody (Center) Blocking Peptide - Product Information

Primary Accession P10606

COX5B Antibody (Center) Blocking Peptide - Additional Information

Gene ID 1329

Other Names
Cytochrome c oxidase subunit 5B, mitochondrial, Cytochrome c oxidase polypeptide Vb, COX5B

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.

COX5B Antibody (Center) Blocking Peptide - Protein Information

Name COX5B

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; Peripheral membrane protein; Matrix side

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COX5B Antibody (Center) Blocking Peptide - Protocols

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

- Blocking Peptides

COX5B Antibody (Center) Blocking Peptide - Images

COX5B Antibody (Center) Blocking Peptide - Background

Cytochrome C oxidase (COX) is the terminal enzyme of themitochondrial respiratory chain. It is a multi-subunit enzymecomplex that couples the transfer of electrons from cytochrome c tomolecular oxygen and contributes to a proton electrochemicalgradient across the inner mitochondrial membrane. The complexconsists of 13 mitochondrial- and nuclear-encoded subunits. Themitochondrially-encoded subunits perform the electron transfer andproton pumping activities. The functions of the nuclear-encodedsubunits are unknown but they may play a role in the regulation andassembly of the complex. This gene encodes the nuclear-encodedsubunit Vb of the human mitochondrial respiratory chain enzyme.

COX5B Antibody (Center) Blocking Peptide - References

Yoshida, T., et al. Int. J. Mol. Med. 25(4):649-656(2010)Chen, Z.X., et al. Cell Death Differ. 17(3):408-420(2010)Oguri, M., et al. Am. J. Hypertens. 23(1):70-77(2010)Beauchemin, A.M., et al. Brain Res. Bull. 56 (3-4), 285-297 (2001) :Wu, H., et al. J. Biol. Chem. 275(42):32491-32498(2000)