

**COX6B1 Antibody (C-term) Blocking peptide**  
**Synthetic peptide**  
**Catalog # BP12336b****Specification**

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**COX6B1 Antibody (C-term) Blocking peptide - Product Information**Primary Accession [P14854](#)**COX6B1 Antibody (C-term) Blocking peptide - Additional Information****Gene ID** 1340**Other Names**

Cytochrome c oxidase subunit 6B1, Cytochrome c oxidase subunit VIb isoform 1, COX VIb-1, COX6B1, COX6B

**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.

**COX6B1 Antibody (C-term) Blocking peptide - Protein Information****Name** COX6B1**Synonyms** COX6B**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; Intermembrane side

## **COX6B1 Antibody (C-term) Blocking peptide - Protocols**

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

- [Blocking Peptides](#)

## **COX6B1 Antibody (C-term) Blocking peptide - Images**

## **COX6B1 Antibody (C-term) Blocking peptide - Background**

Cytochrome c oxidase (COX), the terminal enzyme of the mitochondrial respiratory chain, catalyzes the electron transfer from reduced cytochrome c to oxygen. It 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 be involved in the regulation and assembly of the complex. This nuclear gene encodes subunit VIb. Mutations in this gene are associated with severe infantile encephalomyopathy. Three pseudogenes COX6BP-1, COX6BP-2 and COX6BP-3 have been found on chromosomes 7, 17 and 22q13.1-13.2, respectively.

## **COX6B1 Antibody (C-term) Blocking peptide - References**

Lazarou, M., et al. FEBS J. 276(22):6701-6713(2009) Massa, V., et al. Am. J. Hum. Genet. 82(6):1281-1289(2008) Sirchia, R., et al. Biol. Chem. 388(5):457-465(2007) Schmidt, T.R., et al. Gene 286(1):13-19(2002) Taanman, J.W., et al. Hum. Genet. 87(3):325-327(1991)