10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Cox-4 Antibody
Rabbit Polyclonal Antibody
Catalog # ABV10482

Specification

Cox-4 Antibody - Product Information

Application	**WB, IHC**
Primary Accession	P13073
Other Accession	EAW95436
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**19577**

Cox-4 Antibody - Additional Information

Gene ID 1327

Application & Usage	**Western blotting (0.5-4 µg/ml) and Immunohistochemistry (10-20 µg/ml). However, the optimal concentrations should be determined individually.**

Other Names
COX 4 , COX4B , COX 4I2 , COX 4I1 , COX4I2 , COXIV 2 , COXIV , dJ857M17.2 , MGC72016

Target/Specificity
Cox-4

Antibody Form
Liquid

Appearance
Colorless liquid

Formulation
100 µg (0.2 mg/ml) affinity purified rabbit polyclonal antibody in phosphate-buffered saline (PBS) containing 30% glycerol, 0.5% BSA, and 0.01% thimerosal.

Handling
The antibody solution should be gently mixed before use.

Reconstitution & Storage
-20 °C

Background Descriptions

Precautions
Cox-4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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Cox-4 Antibody - Protein Information

Name COX4I1 (HGNC:2265)

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

Tissue Location
Ubiquitous.

Cox-4 Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Cox-4 Antibody - Images

Cox-4 Antibody - Background

Cytochrome c oxidase (COX) is a 13-subunit complex spanning the inner mitochondrial membrane and responsible for the terminal reduction of dioxygen to water in the electron transport chain. The three core catalytic units COX-1, -2, -3 are trans-membrane proteins encoded by the mitochondrial genome, whereas the remaining 10 subunits are nuclear encoded and expressed in a tissue-specific manner. The expression of nuclear and mitochondrial subunits of the mitochondrial respiratory chain is tho µght to be highly coordinated. Cox-4 is believed to regulate COX activity according to the extramitochondrial ATP/ADP ratio.