

**COX IV Antibody**  
Rabbit mAb  
Catalog # AP90210

## Specification

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### COX IV Antibody - Product Information

Application	WB, IHC, FC, ICC, IP
Primary Accession	<a href="#">P13073</a>
Reactivity	Rat
Clonality	Monoclonal

#### Other Names

Cytochrome c oxidase subunit 4 isoform 1, mitochondrial; Cytochrome c oxidase polypeptide IV; COX IV-1; COX4I1; COX4;

Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	19577 Da

### COX IV Antibody - Additional Information

Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human COX IV

Description	Cytochrome c oxidase (COX) is a hetero-oligomeric enzyme consisting of 13 subunits localized to the inner mitochondrial membrane (1-3). It is the terminal enzyme complex in the respiratory chain, catalyzing the reduction of molecular oxygen to water coupled to the translocation of protons across the mitochondrial inner membrane to drive ATP synthesis.
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Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.
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### COX IV 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

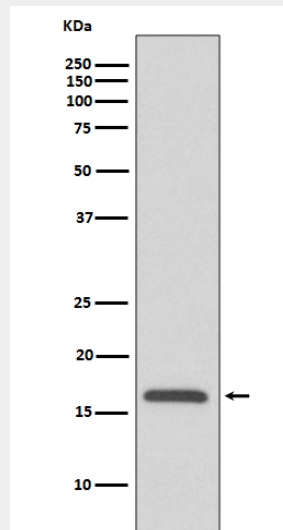
Ubiquitous.

### COX IV 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 Cytometry](#)
- [Cell Culture](#)

### COX IV Antibody - Images



Western blot analysis of COX IV expression in HepG2 cell lysate.