

**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. |
|-------------|---|

|                              |   |
|------------------------------|---|
| 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. |
|------------------------------|---|

**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

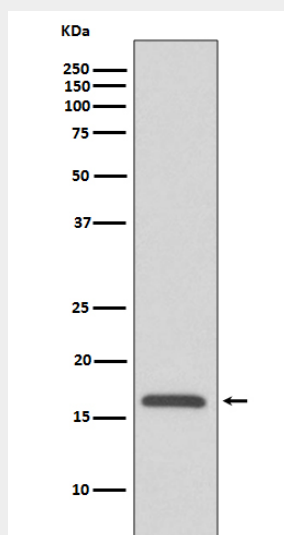
**Tissue Location**

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.