

**Anti-COX4-2 Antibody**  
**Rabbit polyclonal antibody to COX4-2**  
**Catalog # AP60846****Specification**

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**Anti-COX4-2 Antibody - Product Information**

Application	WB, IF/IC, IHC
Primary Accession	<a href="#">O96KJ9</a>
Other Accession	<a href="#">O91W29</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	20010

**Anti-COX4-2 Antibody - Additional Information****Gene ID** 84701**Other Names**

COX4L2; Cytochrome c oxidase subunit 4 isoform 2 mitochondrial; Cytochrome c oxidase subunit IV isoform 2; COX IV-2

**Target/Specificity**

Recognizes endogenous levels of COX4-2 protein.

**Dilution**

WB~~WB (1/500 - 1/2000), IH (1/50 - 1/200), IF/IC (1/50 - 1/100)

IF/IC~~N/A

IHC~~1:100~500

**Format**

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

**Storage**

Store at -20 °C. Stable for 12 months from date of receipt

**Anti-COX4-2 Antibody - Protein Information****Name** COX4I2 ([HGNC:16232](#))**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 {ECO:0000250|UniProtKB:P00423}; Single-pass membrane protein {ECO:0000250|UniProtKB:P00423}

#### Tissue Location

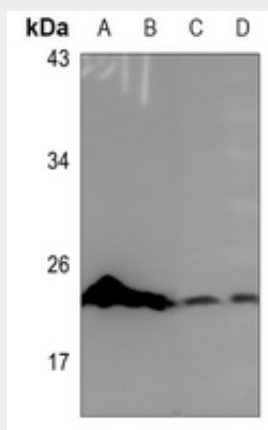
Highly expressed in lung.

### Anti-COX4-2 Antibody - Protocols

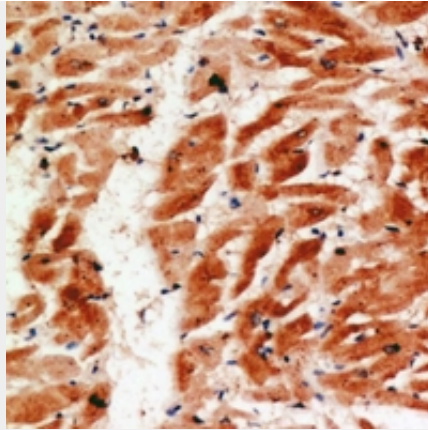
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

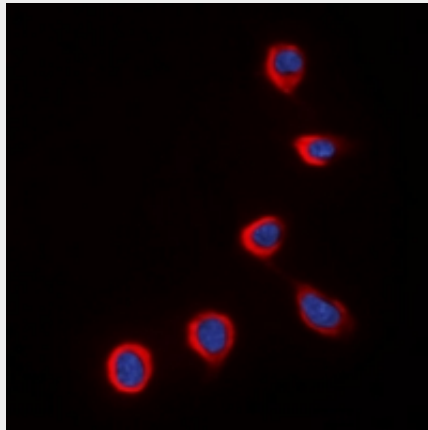
### Anti-COX4-2 Antibody - Images



Western blot analysis of COX4-2 expression in HEK293T (A), H446 (B), rat lung (C), rat heart (D) whole cell lysates.



Immunohistochemical analysis of COX4-2 staining in human heart formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of COX4-2 staining in K562 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark. DAPI was used to stain the cell nuclei (blue).

#### **Anti-COX4-2 Antibody - Background**

KLH-conjugated synthetic peptide encompassing a sequence within the center region of human COX4-2. The exact sequence is proprietary.