

**COX42 Antibody**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP50659****Specification**

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**COX42 Antibody - Product Information**

Application	IF, WB
Primary Accession	<a href="#">O96KJ9</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	20 KDa
Antigen Region	55-80

**COX42 Antibody - Additional Information****Gene ID** 84701**Other Names**

Cytochrome c oxidase subunit 4 isoform 2, mitochondrial, Cytochrome c oxidase subunit IV isoform 2, COX IV-2, COX4I2, COX4L2

**Dilution**

IF~~1:100

WB~~1:1000

**Format**

Rabbit IgG in phosphate buffered saline (without Mg<sup>2+</sup> and Ca<sup>2+</sup>), pH 7.4, 150mM NaCl, 0.09% (W/V) sodium azide and 50% glycerol.

**Storage Conditions**

-20°C

**COX42 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

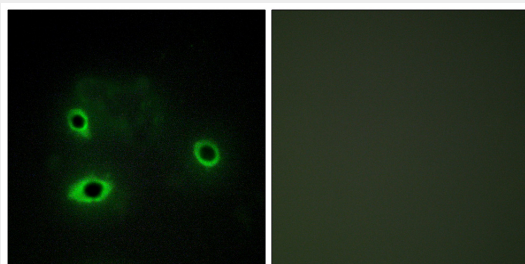
Highly expressed in lung.

### COX42 Antibody - Protocols

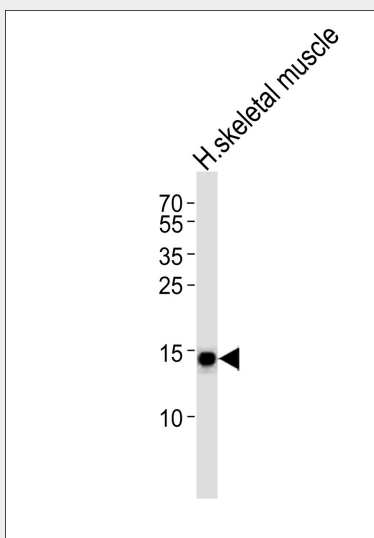
Provided below are standard protocols that you may find useful for product applications.

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

### COX42 Antibody - Images



Immunofluorescence analysis of COS7 cells, using COX42 antibody.



Western blot analysis of lysate from human skeletal muscle tissue lysate, using COX42

Antibody(AP50659). AP50659 was diluted at 1:1000. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysate at 35ug.

#### **COX42 Antibody - Background**

This protein is one of the nuclear-coded polypeptide chains of cytochrome c oxidase, the terminal oxidase in mitochondrial electron transport.

#### **COX42 Antibody - References**

Huettemann M., et al. Gene 267:111-123(2001).  
Deloukas P., et al. Nature 414:865-871(2001).  
Shteyer E., et al. Am. J. Hum. Genet. 84:412-417(2009).