

**COX4I1 Antibody (N-term)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP9153a**

**Specification**

---

**COX4I1 Antibody (N-term) - Product Information**

Application	WB, IHC-P,E
Primary Accession	<a href="#">P13073</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	19577
Antigen Region	25-54

**COX4I1 Antibody (N-term) - Additional Information**

**Gene ID** 1327

**Other Names**

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

**Target/Specificity**

This COX4I1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 25-54 amino acids from the N-terminal region of human COX4I1.

**Dilution**

WB~~1:1000  
IHC-P~~1:50~100

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

COX4I1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**COX4I1 Antibody (N-term) - 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

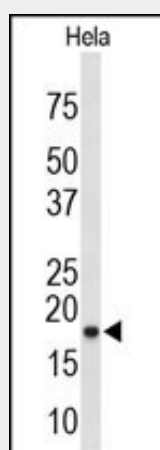
Ubiquitous.

### COX4I1 Antibody (N-term) - Protocols

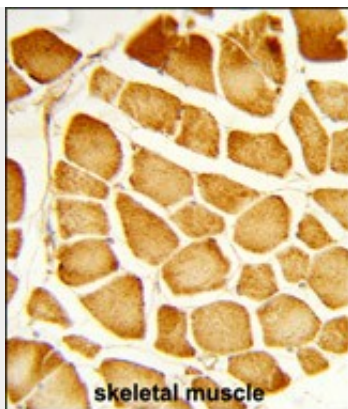
Provided below are standard protocols that you may find useful for product applications.

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

### COX4I1 Antibody (N-term) - Images



Western blot analysis of COX4I1 Antibody (N-term) (Cat. #AP9153a) in HeLa cell line lysates (35ug/lane). COX4I1 (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human skeletal muscle reacted with COX4I1 Antibody (N-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

#### **COX4I1 Antibody (N-term) - Background**

COX4I1 is one of the nuclear-coded polypeptide chains of cytochrome c oxidase, the terminal oxidase in mitochondrial electron transport.

#### **COX4I1 Antibody (N-term) - References**

Choudhary C., et.al., Science 325:834-840(2009).  
van Kuilenburg A.B.P., et.al., Biochim. Biophys. Acta 1119:218-224(1992).

#### **COX4I1 Antibody (N-term) - Citations**

- [Increased mtDNA copy number promotes cancer progression by enhancing mitochondrial oxidative phosphorylation in microsatellite-stable colorectal cancer.](#)
- [Increased mitochondrial fission promotes autophagy and hepatocellular carcinoma cell survival through the ROS-modulated coordinated regulation of the NFKB and TP53 pathways.](#)