

**COXIV / COX4 Antibody (clone 6B3)**  
**Mouse Monoclonal Antibody**  
**Catalog # ALS16869****Specification**

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**COXIV / COX4 Antibody (clone 6B3) - Product Information**

Application	IHC, IF, WB
Primary Accession	<a href="#">P13073</a>
Other Accession	<a href="#">1327</a>
Reactivity	Human, Mouse, Rat, Monkey
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	19577

**COXIV / COX4 Antibody (clone 6B3) - Additional Information****Gene ID** 1327**Other Names**

COX4I1, COX4-1, COX4, COX IV-1, COXIV

**Target/Specificity**

Human COXIV / COX4

**Reconstitution & Storage**

Ascites, 0.03% sodium azide. Long term: -20°C; Short term: +4°C; Avoid freeze-thaw cycles.

**Precautions**

COXIV / COX4 Antibody (clone 6B3) is for research use only and not for use in diagnostic or therapeutic procedures.

**COXIV / COX4 Antibody (clone 6B3) - 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

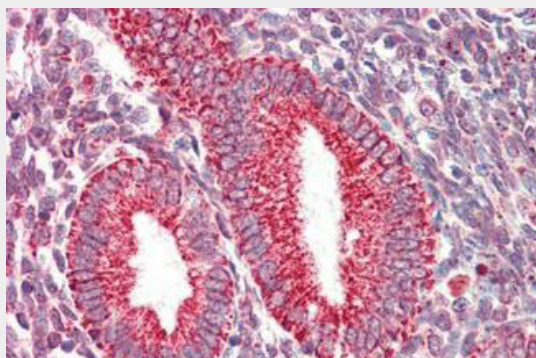
**Tissue Location**

Ubiquitous.

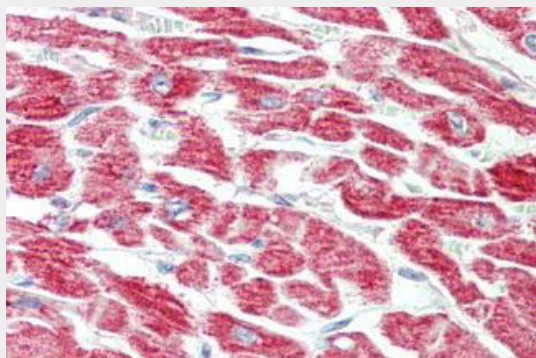
**COXIV / COX4 Antibody (clone 6B3) - Protocols**

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

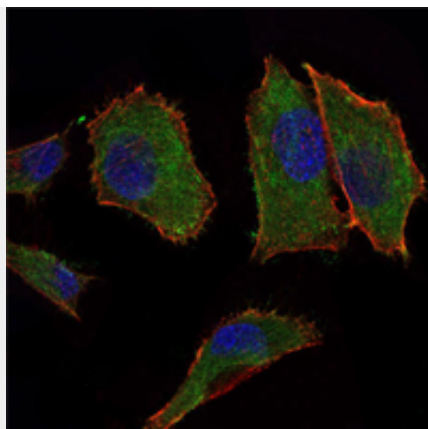
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**COXIV / COX4 Antibody (clone 6B3) - Images**

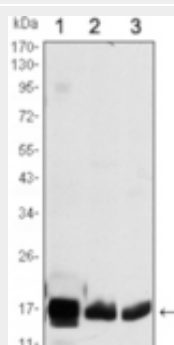
Anti-COXIV / COX4 antibody IHC staining of human uterus.



Anti-COXIV / COX4 antibody IHC staining of human heart.



Immunofluorescence of PANC-1 cells using COX4I1 mouse monoclonal antibody (green).



Western blot using COX4I1 mouse monoclonal antibody against HEK293 (1), A549 (2) and PC12 (3)...

### **COXIV / COX4 Antibody (clone 6B3) - Background**

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

### **COXIV / COX4 Antibody (clone 6B3) - References**

- Zeviani M.,et al.Gene 55:205-217(1987).
- Lomax M.I.,et al.Gene 86:209-216(1990).
- Park S.J.,et al.Submitted (OCT-1990) to the EMBL/GenBank/DDBJ databases.
- Yu W.,et al.Submitted (MAR-1997) to the EMBL/GenBank/DDBJ databases.
- Bachman N.J.,et al.Submitted (MAY-1997) to the EMBL/GenBank/DDBJ databases.