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COX IV Antibody
Purified Mouse Monoclonal Antibody (Mab)
Catalog # AP52659

Specification

COX IV Antibody - Product Information

Application	**WB, FC, ICC, IP**
Primary Accession	P13073
Reactivity	**Human, Mouse, Neisseria Gonorrhoeae**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**
Calculated MW	**17 KDa**

COX IV Antibody - Additional Information

Gene ID 1327

Other Names
AL024441;COX 4;COX IV 1;COX IV;COX IV-1;Cox4;COX41_HUMAN;Cox4a;COX4B;COX4I1;COX4I2;COX4L2;COXIV;Cytochrome c oxidase polypeptide IV;Cytochrome c oxidase subunit 4 isoform 1 mitochondrial;Cytochrome c oxidase subunit 4 isoform 1, mitochondrial;Cytochrome C Oxidase subunit IV;Cytochrome c oxidase subunit IV isoform 1;Cytochrome c oxidase subunit IV isoform 2 (lung);Cytochrome c oxydase subunit;dJ857M17.2;MGC105470;MGC72016.

Dilution
WB~~1:1000
FC~~1:100
ICC~~1:150
IP~~1:500

Format
Purified mouse monoclonal antibody in buffer containing 0.1M Tris-Glycine(pH 7.4,150 mM NaCl)with 0.09% (W/V) sodium azide,0.1mg/mlBSA and 50% glycerol.

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

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

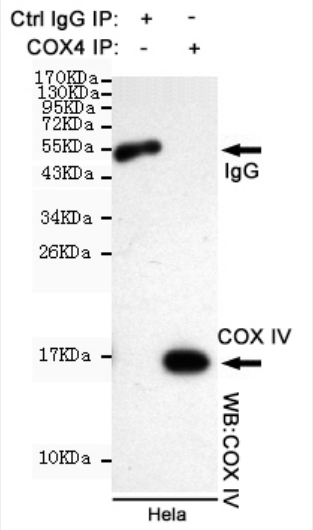
Tissue Location
Ubiquitous.

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 Cytomety
- Cell Culture

COX IV Antibody - Images



Immunoprecipitation analysis of Hela cell lysates using COX IV mouse mAb.

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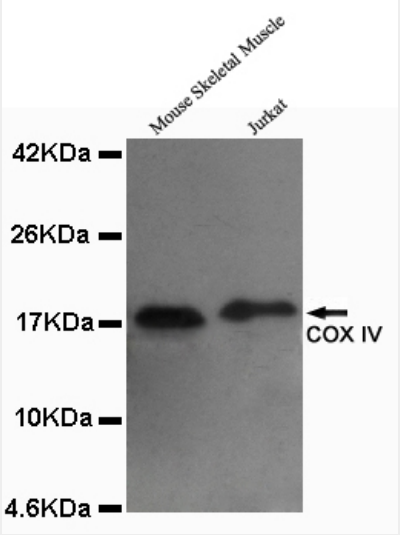
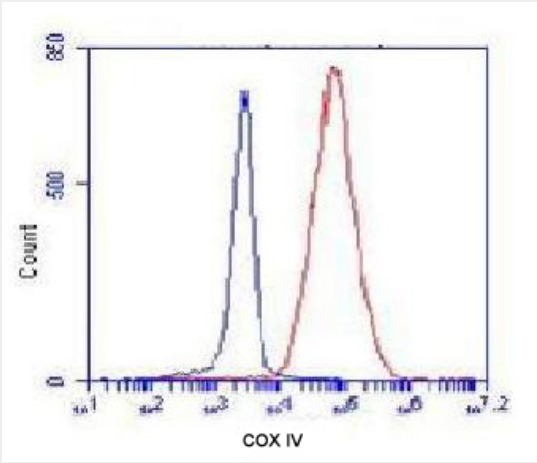
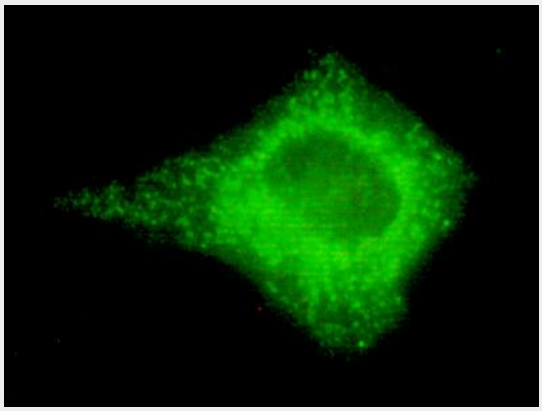


Western blot detection of COX IV in Mouse skeletal muscel and Jurkat lysates using COX IV mouse mAb (1:1000 diluted). Predicted band size: 17KDa.Observed band size: 17KDa.



Flow Cytometry analysis of K562 cells stained with COX4 (red, 1/100 dilution), followed by FITC-conjugated goat anti-mouse IgG. Blue line histogram represents the isotype control, normal mouse IgG.



Immunocytochemistry of HeLa cells using anti-COX IV mouse mAb diluted 1:150.

COX IV Antibody - Background

This protein is one of the nuclear-coded polypeptide chains of cytochrome c oxidase, the terminal

oxidase in mitochondrial electron transport.

COX IV Antibody - 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.

COX IV Antibody - Citations

- Mechanistic characterization of nitrite-mediated neuroprotection after experimental cardiac arrest.