10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

COX IV Antibody

Rabbit mAb
Catalog # AP90210

Product Information

Application	WB, IHC, IF, FC, ICC, IP, IHF
Primary Accession	P13073
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Other Names	Cytochrome c oxidase subunit 4 isoform 1, mitochondrial; Cytochrome c oxidase polypeptide IV; COX IV-1; COX4I1; COX4;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	19577

Additional Information

Dilution	WB 1:1000~1:2000 IHC 1:50~1:200 ICC/IF 1:100~1:500 IP 1:20 FC 1:20
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human COX IV
Description	Cytochrome c oxidase (COX) is a hetero-oligomeric enzyme consisting of 13 subunits localized to the inner mitochondrial membrane (1-3). It is the terminal enzyme complex in the respiratory chain, catalyzing the reduction of molecular oxygen to water coupled to the translocation of protons across the mitochondrial inner membrane to drive ATP synthesis.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Protein Information

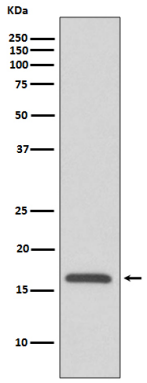
Name	COX4I1 (HGNC:2265)
Function	Component of the cytochrome c oxidase, the last enzyme in the mitochondrial electron transport chain which drives oxidative phosphorylation. The respiratory chain contains 3 multisubunit complexes succinate dehydrogenase (complex II, CII), ubiquinol- cytochrome c oxidoreductase (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.

Images



Western blot analysis of COX IV expression in HepG2 cell lysate.

Image not found : 202311/AP90210-IHC.jpg

Immunohistochemical analysis of paraffin-embedded human heart, using COX IV Antibody.

Image not found : 202311/AP90210-IF.jpg

Immunofluorescent analysis of Hela cells, using COX IV Antibody.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.