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MTCO2 Antibody

Rabbit mAb
Catalog # AP90720

Product Information

Application	WB, IHC, IF, FC, ICC, IP, IHF
Primary Accession	P00403
Reactivity	Human
Clonality	Monoclonal
Other Names	MT-CO2; COX2; CO2; Cytochrome c oxidase II; MTCO2; COII; COXII;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	25565

Additional Information

Dilution	WB 1:500~1:2000 IHC 1:50~1:200 ICC/IF 1:50~1:200 IP 1:20 FC 1:50
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human MTCO2
Description	Cytochrome c oxidase is the component of the respiratory chain that catalyzes the reduction of oxygen to water. Subunits 1-3 form the functional core of the enzyme complex. Subunit 2 transfers the electrons from cytochrome c via its binuclear copper A center to the bimetallic center of the catalytic subunit 1.
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.

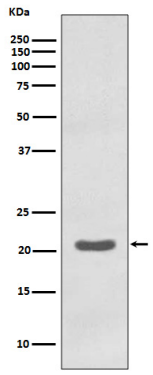
Protein Information

Name	MT-CO2
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; Multi-pass membrane protein

Images



Western blot analysis of MTCO2 expression in K562 cell lysate.

Image not found : 202311/AP90720-IHC.jpg

Immunohistochemical analysis of paraffin-embedded human liver, using MTCO2 Antibody.