

MTCO2 Rabbit mAb

Catalog # AP75745

Product Information

Application WB, IHC-P, IHC-F, IP, ICC

Primary Accession P00403
Reactivity Human
Rabbit

Clonality Monoclonal Antibody

Calculated MW 25565

Additional Information

Gene ID 4513

Other Names MT-CO2

Dilution WB~~1/500-1/1000 IHC-P~~N/A IHC-F~~N/A IP~~N/A ICC~~N/A

Format Liquid

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

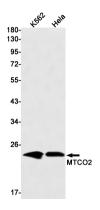
from reduced cytochrome c in the intermembrane space (IMS) are

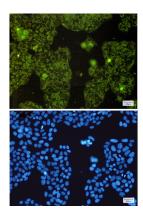
transferred via the dinuclear copper A center (CU(A)) of subunit 2 and heme A of subunit 1 to the active site in subunit 1, a binuclear center (BNC) formed by heme A3 and copper B (CU(B)). The BNC reduces molecular oxygen to 2 water molecules using 4 electrons from cytochrome c in the IMS and 4 protons from

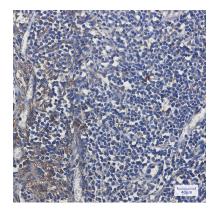
the mitochondrial matrix.

Cellular Location Mitochondrion inner membrane; Multi-pass membrane protein

Images







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