

# MTCO2 Rabbit mAb

Catalog # AP75745

## Product Information

---

<b>Application</b>	WB, IHC-P, IHC-F, FC, IP
<b>Primary Accession</b>	<a href="#">P00403</a>
<b>Reactivity</b>	Human
<b>Host</b>	Rabbit
<b>Clonality</b>	Monoclonal Antibody
<b>Isotype</b>	IgG
<b>Conjugate</b>	Unconjugated
<b>Purification</b>	Affinity Purified
<b>Calculated MW</b>	25565

## Additional Information

---

<b>Gene ID</b>	4513
<b>Other Names</b>	MT-CO2
<b>Dilution</b>	WB~~1:1000-1:5000 IHC-P~~N/A IHC-F~~N/A FC~~1:50-1:100 IP~~1:20-1:50
<b>Format</b>	Liquid in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.
<b>Storage</b>	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

## Protein Information

---

<b>Name</b>	MT-CO2
<b>Function</b>	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.

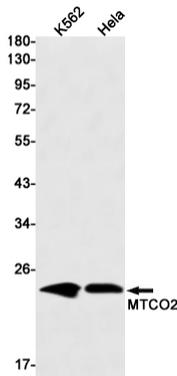
## Cellular Location

Mitochondrion inner membrane; Multi-pass membrane protein

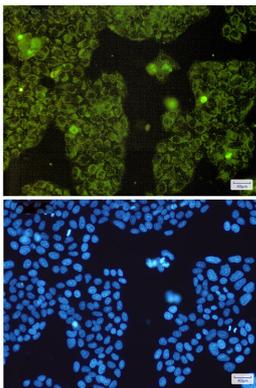
## Background

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.

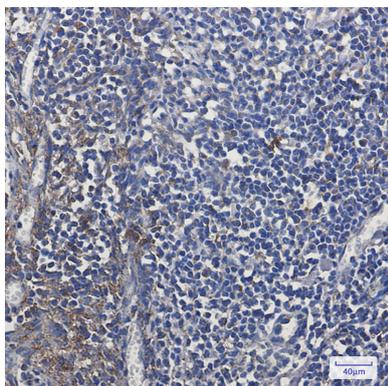
## Images



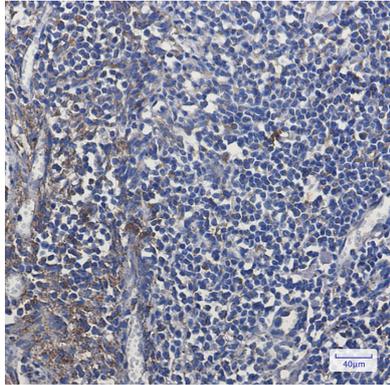
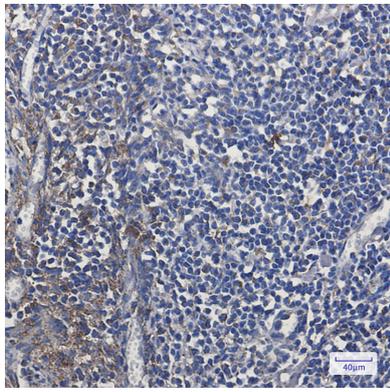
Western blot analysis of MTCO2 in K562, HeLa lysates using MTCO2 antibody.



Immunocytochemistry analysis of MTCO2(green) in HeLa using MTCO2 antibody, and DAPI(blue)



Immunohistochemistry analysis of paraffin-embedded Human tonsil using MTCO2 antibody. High-pressure and temperature Sodium Citrate pH 6.0 was used for antigen retrieval.



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