

**MT-CO2 Antibody (C-term)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP21628b****Specification**

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**MT-CO2 Antibody (C-term) - Product Information**

Application	WB,E
Primary Accession	<a href="#">P00403</a>
Reactivity	Human
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Calculated MW	25565

**MT-CO2 Antibody (C-term) - Additional Information****Gene ID** 4513**Other Names**

Cytochrome c oxidase subunit 2, Cytochrome c oxidase polypeptide II, MT-CO2, COII, COXII, MTCO2

**Target/Specificity**

This MT-CO2 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 169-201 amino acids from the C-terminal region of human MT-CO2.

**Dilution**

WB~~1:2000

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

MT-CO2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**MT-CO2 Antibody (C-term) - 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

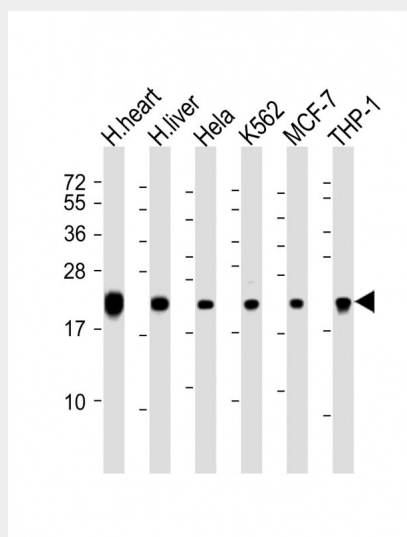
Mitochondrion inner membrane; Multi-pass membrane protein

### MT-CO2 Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### MT-CO2 Antibody (C-term) - Images



All lanes : Anti-MTCO2 Antibody (Cterm) at 1:2000 dilution Lane 1: human heart lysate Lane 2: human liver lysate Lane 3: HeLa whole cell lysate Lane 4: K562 whole cell lysate Lane 5: MCF-7 whole cell lysate Lane 6: THP-1 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 26 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

### MT-CO2 Antibody (C-term) - 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.

#### **MT-CO2 Antibody (C-term) - References**

Anderson S.,et al.Nature 290:457-465(1981).  
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Barrell B.G.,et al.Nature 282:189-194(1979).  
Horai S.,et al.Proc. Natl. Acad. Sci. U.S.A. 92:532-536(1995).  
Ruvolo M.,et al.Mol. Biol. Evol. 10:1115-1135(1993).