

For Research Use Only

# MTCO2 Polyclonal antibody

Catalog Number: 55070-1-AP

Featured Product

131 Publications



## Basic Information

**Catalog Number:**

55070-1-AP

**Size:**

150ul, Concentration: 500 ug/ml by Nanodrop;

**Source:**

Rabbit

**Isotype:**

IgG

**GenBank Accession Number:**

YP\_003024029

**GeneID (NCBI):**

4513

**UNIPROT ID:**

P00403

**Full Name:**

cytochrome c oxidase II

**Calculated MW:**

26 kDa

**Observed MW:**

23-26 kDa

**Purification Method:**

Antigen affinity purification

**Recommended Dilutions:**

WB 1:2000-1:12000

IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate

IHC 1:4000-1:16000

IF/ICC 1:50-1:500

## Applications

**Tested Applications:**

WB, IHC, IF/ICC, FC (Intra), IP, ELISA

**Cited Applications:**

WB, IHC, IF, IP, CoIP

**Species Specificity:**

human

**Cited Species:**

human, mouse, rat, monkey, zebrafish, hamster

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

**Positive Controls:**

WB : A431 cells, 143B cells, various samples, HeLa cells, MCF-7 cells

IP : HeLa cells,

IHC : human colon cancer tissue,

IF/ICC : HepG2 cells,

## Background Information

MTCO2, also named as COII, COXII, and COX2, belongs to the cytochrome c oxidase subunit 2 family. It 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. Defects in COX2 are a cause of mitochondrial complex IV deficiency (MT-C4D). The antibody is specific to MTCO2.

## Notable Publications

Author	Pubmed ID	Journal	Application
Q E Xie	34571250	Mitochondrion	WB
Esther Paulo	34551310	Cell Rep	WB
Ya-Ling Yang	32961796	Int J Mol Sci	WB

## Storage

**Storage:**

Store at -20°C. Stable for one year after shipment.

**Storage Buffer:**

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

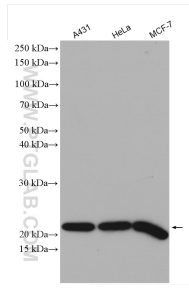
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

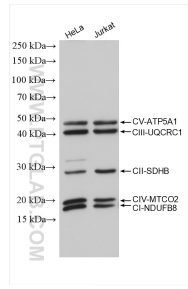
E: proteintech@ptglab.com  
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

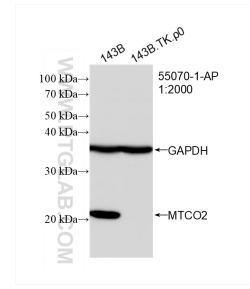
## Selected Validation Data



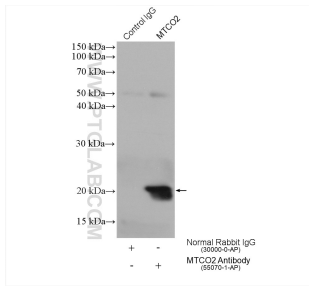
Various lysates were subjected to SDS PAGE followed by western blot with 55070-1-AP (MTCO2 antibody) at dilution of 1:6000 incubated at room temperature for 1.5 hours.



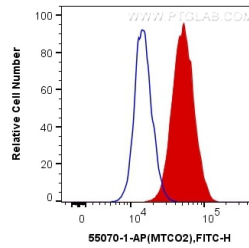
Various lysates were subjected to SDS PAGE followed by western blot with PK30006 (OXPHOS Cocktail (Human recommended)) at dilution of 1:4000 incubated at room temperature for 1 hours.



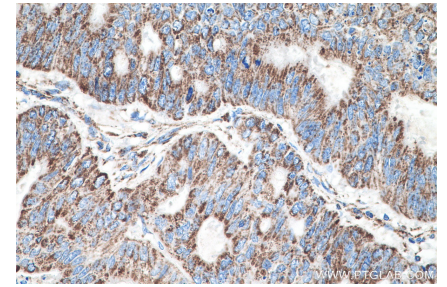
WB result of MTCO2 antibody (MTCO2; 1:2000; incubated at room temperature for 1.5 hours) with 143B and 143B.TK.p0 cell. 143B is wild-type cell line, 143B.TK.p0 is mtDNA deletion cell line.



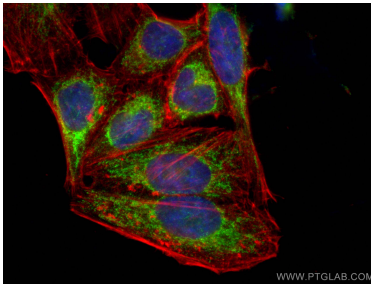
IP result of anti-MTCO2 (IP:55070-1-AP, 4ug; Detection:55070-1-AP 1:1000) with HeLa cells lysate 1880 ug.



$1 \times 10^6$  A431 cells were intracellularly stained with 0.4 ug Anti-Human MTCO2 (55070-1-AP) and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Control Antibody. Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 55070-1-AP (MTCO2 antibody) at dilution of 1:8000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using MTCO2 antibody (55070-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L), CL594-phalloidin (red).