

# MTCO2 Polyclonal antibody

Catalog Number: 55070-1-AP

Featured Product

105 Publications

## Basic Information

## Catalog Number:

55070-1-AP

## Size:

150ul, Concentration: 750 µg/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 µg for 1.0-3.0 mg of total protein lysate

IHC 1:4000-1:16000

IF 1:50-1:500

## Applications

## Tested Applications:

FC, IF, IHC, IP, WB, ELISA

## Cited Applications:

IF, IHC, IP, WB

## Species Specificity:

human, mouse, rat

## Cited Species:

human, rat, mouse, 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, various samples, mouse heart tissue, HeLa cells, MCF-7 cells, mouse liver tissue, rat heart tissue, mouse liver heart tissue

**IP:** HeLa cells,

**IHC:** human colon cancer tissue,

**IF:** 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

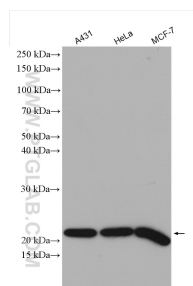
For technical support and original validation data for this product please contact:

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

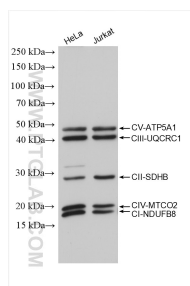
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
W: [ptglab.com](http://ptglab.com)

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

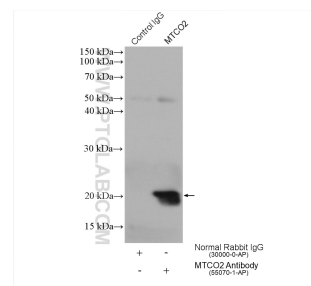
## Selected Validation Data



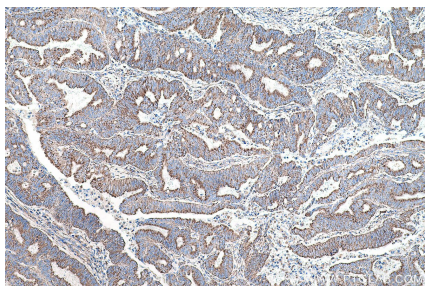
Various lysates were subjected to SDS PAGE followed by western blot with 55070-1-AP (MTCO2 antibody) at dilution of 1:6000 incubated at room temperature for 1.5 hours.



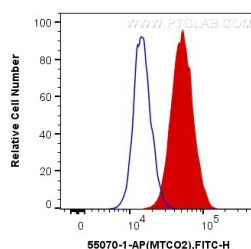
Various lysates were subjected to SDS PAGE followed by western blot with PK30006 (OXPHOS Cocktail (Human recommended)) at dilution of 1:4000 incubated at room temperature for 1 hours.



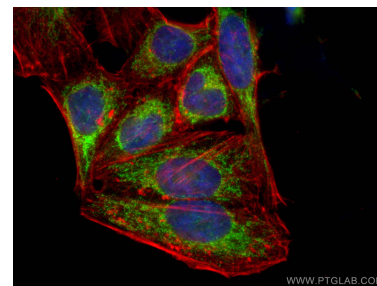
IP result of anti-MTCO2 (IP:55070-1-AP, 4ug; Detection:55070-1-AP 1:1000) with HeLa cells lysate 1880 ug.



Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 55070-1-AP (MTCO2 antibody) at dilution of 1:8000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



1X10<sup>6</sup> A431 cells were intracellularly stained with 0.4 ug Anti-Human MTCO2 (55070-1-AP) and CoraLite®488-Conjugated AffiniPure 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).



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