

For Research Use Only

MTCO2 Polyclonal antibody

Catalog Number: 55070-1-AP

Featured Product

131 Publications



Basic Information

Catalog Number:

55070-1-AP

Concentration:

500 µg/ml

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/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

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

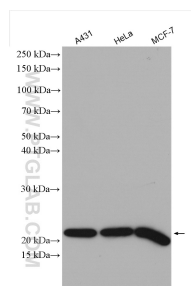
T: 4006900926

E: Proteintech-CN@ptglab.com

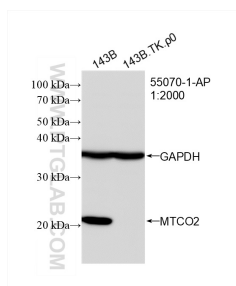
W: ptgcn.com

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

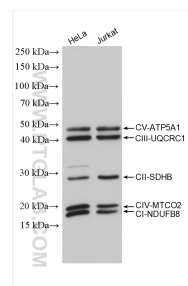
Selected Validation Data



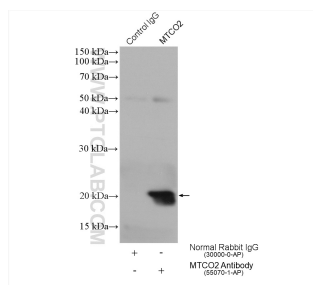
Various lysates were subjected to SDS PAGE followed by western blot with 55070-1-AP (MTCO2 antibody) at dilution of 1:6000 incubated at room temperature for 1.5 hours.



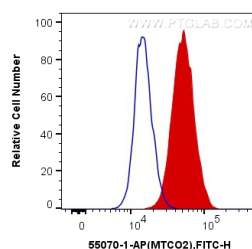
WB result of MTCO2 antibody (MTCO2; 1:2000; incubated at room temperature for 1.5 hours) with 143B and 143B.TK 0 cell. 143B is wild-type cell line, 143B.TK 0 is mtDNA deletion cell line.



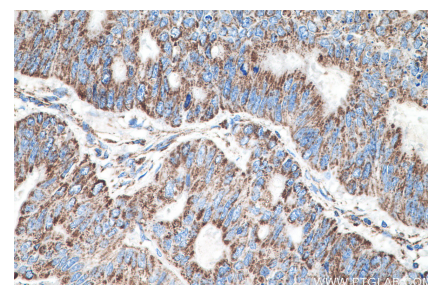
Various lysates were subjected to SDS PAGE followed by western blot with PK30006 (OXPHOS Cocktail (Human recommended)) at dilution of 1:4000 incubated at room temperature for 1 hours.



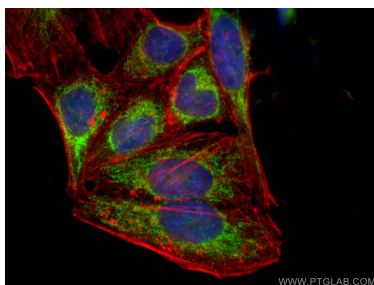
IP result of anti-MTCO2 (IP:55070-1-AP, 4ug; Detection:55070-1-AP 1:1000) with HeLa cells lysate 1880 ug.



1X10⁶ 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).