

COXI Antibody (Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9684C**Specification**

COXI Antibody (Center) - Product Information

Application	WB, IF, E
Primary Accession	P00395
Other Accession	P00398 , P05503 , O79429 , O79876 , P00397 , O9MIY8 , P18943 , P00396 , P48659 , O78749
Reactivity	Human
Predicted	Bovine, Chicken, Zebrafish, Horse, Mouse, Pig, Rabbit, Rat, Sheep, Xenopus
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	195-224

COXI Antibody (Center) - Additional Information**Gene ID** 4512**Other Names**

Cytochrome c oxidase subunit 1, Cytochrome c oxidase polypeptide I, MT-CO1, COI, COXI, MTCO1

Target/Specificity

This COXI antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 195-224 amino acids of human COXI.

Dilution

WB~~1:2000

IF~~1:25

E~~Use at an assay dependent concentration.

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

COXI Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

COXI Antibody (Center) - Protein Information

Name MT-CO1

Synonyms COI, COXI, MTCO1

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

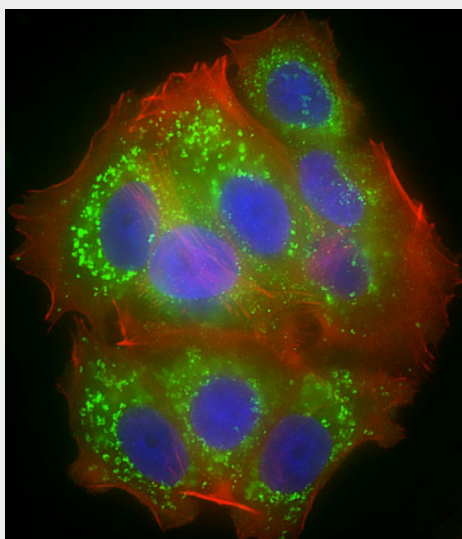
Mitochondrion inner membrane; Multi-pass membrane protein

COXI Antibody (Center) - Protocols

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

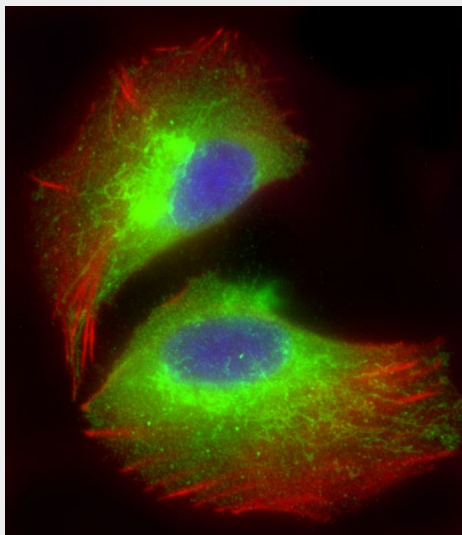
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

COXI Antibody (Center) - Images

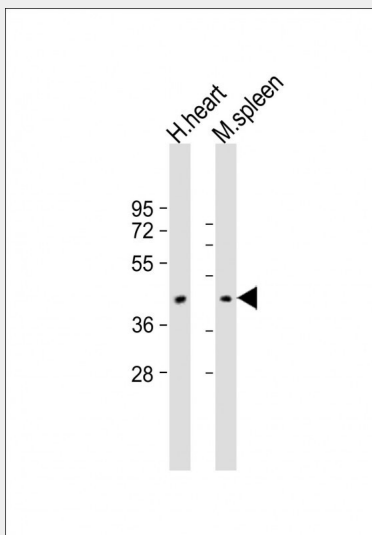


Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized

MCF-7 (human breast cancer cell line) cells labeling COXI with AP9684C at 1/25 dilution, followed by Dylight® 488-conjugated goat anti-rabbit IgG (NK179883) secondary antibody at 1/200 dilution (green). Immunofluorescence image showing cytoplasm and mitochondrion staining on MCF-7 cell line. Cytoplasmic actin is detected with Dylight® 554 Phalloidin (PD18466410) at 1/100 dilution (red). The nuclear counter stain is DAPI (blue).



Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized U-2 OS (human osteosarcoma cell line) cells labeling COXI with AP9684C at 1/25 dilution, followed by Dylight® 488-conjugated goat anti-rabbit IgG (1583138) secondary antibody at 1/200 dilution (green). Immunofluorescence image showing endoplasmic reticulum staining on U-2 OS cell line. Cytoplasmic actin is detected with Dylight® 554 Phalloidin (PD18466410) at 1/100 dilution (red). The nuclear counter stain is DAPI (blue).



All lanes : Anti-COXI Antibody (Center) at 1:2000 dilution Lane 1: human heart lysate Lane 2: mouse spleen lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 57 kDa Blocking/Dilution buffer: 5% NFDm/TBST.

COXI Antibody (Center) - References

Andrews, R.M., et al. Nat. Genet. 23 (2), 147 (1999) # Anderson, S., et al. Nature 290(5806):457-465(1981)