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COXI Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9684C

Product Information

Application	WB, IF, E
Primary Accession	P00395
Other Accession	P00398, P05503, O79429, O79876, P00397, Q9MIY8, P18943, P00396
Reactivity	Human, Mouse, Rat
Predicted	Mouse, Rat, Rabbit, Zebrafish, Pig, Chicken, Bovine, Xenopus
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB24524
Calculated MW	57041
Antigen Region	195-224

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.

Protein Information

Name	MT-CO1
Synonyms	COI, COXI, MTCO1
Function	Component of the cytochrome c oxidase, the last enzyme in the

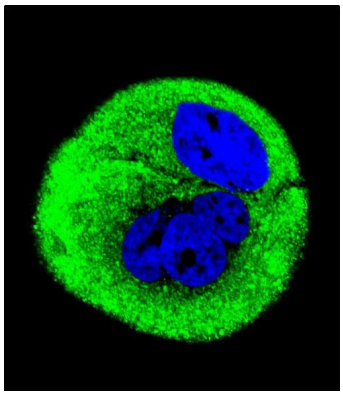
mitochondrial electron transport chain which drives oxidative phosphorylation. The respiratory chain contains 3 multisubunit complexes succinate dehydrogenase (complex II, CII), ubiquinol- cytochrome c oxidoreductase (cytochrome b-c1 complex, complex III, CIII) and cytochrome c oxidase (complex IV, CIV), 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

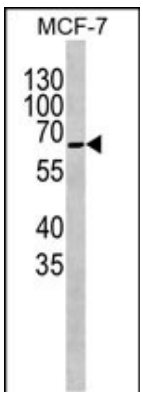
References

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

Images

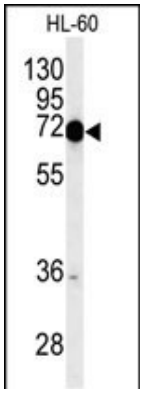


Confocal immunofluorescent analysis of COXI Antibody (Center)(Cat#AP9684c) with MCF-7 cell followed by Alexa Fluor® 488-conjugated goat anti-rabbit lgG (green). DAPI was used to stain the cell nuclear (blue).



COXI Antibody (Center) (Cat. #AP9684c) western blot analysis in MCF-7 cell line lysates.This demonstrates the COXI antibody detected the COXI protein (arrow)(Kindly provided by Dr. John Wu).

Western blot analysis of COXI Antibody (Center) (Cat. #AP9684c) in HL-60 cell line lysates (35ug/lane). COXI (arrow) was detected using the purified Pab.



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.