10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

COX6B1 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP20624a

Product Information

Application	WB, IF, E
Primary Accession	P14854
Reactivity	Human, Mouse
Predicted	Rat, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB48530
Calculated MW	10192

Additional Information

Gene ID	1340
Other Names	Cytochrome c oxidase subunit 6B1, Cytochrome c oxidase subunit VIb isoform 1, COX VIb-1, COX6B1, COX6B
Target/Specificity	This COX6B1 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 8-22 amino acids from the N-terminal region of human COX6B1.
Dilution	WB~~1:1000 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	COX6B1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	COX6B1
Synonyms	COX6B
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; Peripheral membrane protein; Intermembrane side

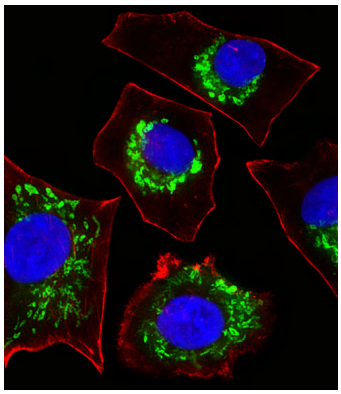
Background

Connects the two COX monomers into the physiological dimeric form (By similarity).

References

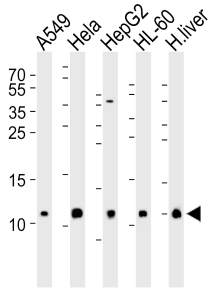
Taanman J.-W.,et al.Nucleic Acids Res. 17:1766-1766(1989).
Taanman J.-W.,et al.Gene 93:285-291(1990).
Carrero-Valenzuela R.D.,et al.Gene 102:229-236(1991).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Kalnine N.,et al.Submitted (MAY-2003) to the EMBL/GenBank/DDBJ databases.

Images



Fluorescent image of A549 cells stained with COX6B1 Antibody (N-term)(Cat#AP20624a). AP20624a was diluted at 1:25 dilution. An Alexa Fluor 488-conjugated goat anti-rabbit lgG at 1:400 dilution was used as the secondary antibody (green). DAPI was used to stain the cell nuclear (blue). Cytoplasmic actin was counterstained with Alexa Fluor® 555 conjugated with Phalloidin (red).

Western blot analysis of lysates from A549, Hela, HepG2, HL-60 cell line and human liver tissue lysate(from left to right), using COX6B1 Antibody (N-term)(Cat. #AP20624a). AP20624a was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysates at 35ug per lane.



Citations

- Sympathetic inputs regulate adaptive thermogenesis in brown adipose tissue through cAMP-Salt inducible kinase axis.
- Brown adipocyte ATF4 activation improves thermoregulation and systemic metabolism

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