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COX5A Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP51691

Product Information

Application	WB
Primary Accession	P20674
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	16762

Additional Information

Gene ID	9377
Other Names	Cytochrome c oxidase subunit 5A, mitochondrial, Cytochrome c oxidase polypeptide Va, COX5A
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human COX5A. The exact sequence is proprietary.
Dilution	WB~~ 1:1000
Format	0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	COX5A
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; Matrix side

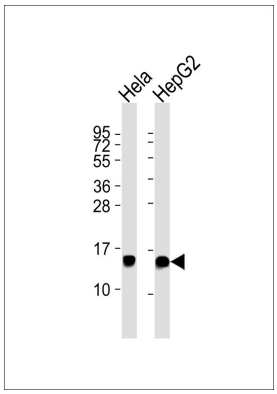
Background

This is the heme A-containing chain of cytochrome c oxidase, the terminal oxidase in mitochondrial electron transport.

References

Rizzuto R.,et al.Gene 69:245-256(1988).
Uddin M.,et al.BMC Evol. Biol. 8:8-8(2008).
Ebert L.,et al.Submitted (MAY-2004) to the EMBL/GenBank/DDBJ databases.
Zody M.C.,et al.Nature 440:671-675(2006).
Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.

Images



All lanes : Anti-COX5A Antibody at 1:1000 dilution Lane 1: Hela whole cell lysates Lane 2: HepG2 whole cell lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L),Peroxidase conjugated at 1/10000 dilution Predicted band size : 17 kDa Blocking/Dilution buffer: 5% NFDM/TBST.