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COX6B2 Rabbit pAb

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Catalog # AP55377

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q6YFQ2
Reactivity	Human
Predicted	Mouse, Rat, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	10529
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human COX6B2
Epitope Specificity	1-88/88
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Mitochondrion intermembrane space.
SIMILARITY	Belongs to the cytochrome c oxidase subunit 6B family.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	The cytochrome c oxidase (COX) family of proteins function as the final electron donor in the respiratory chain to drive a proton gradient across the inner mitochondrial membrane, ultimately resulting in the production of water. The mammalian COX apoenzyme is a dimer, with each monomer consisting of 13 subunits, some of which are mitochondrial and some of which are nuclear. Localized to the intermembrane space, COX6b2 (Cytochrome c oxidase subunit 6B2), also known as Cytochrome c oxidase subunit VIb isoform 2 and Cancer/testis antigen 59, is a 88 amino acid mitochondrial protein that is responsible for joining the two COX monomers to form the COX dimer. COX6b2 is specifically expressed in testis and is found to be upregulated in certain cancer cell lines.

Additional Information

Gene ID	125965
Other Names	Cytochrome c oxidase subunit 6B2, Cancer/testis antigen 59, CT59, Cytochrome c oxidase subunit VIb isoform 2, COX VIb-2, Cytochrome c oxidase subunit VIb, testis-specific isoform, COX6B2
Target/Specificity	Testis specific. Weak expression in thymus and heart. Expressed in cancer cell lines.
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500

Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

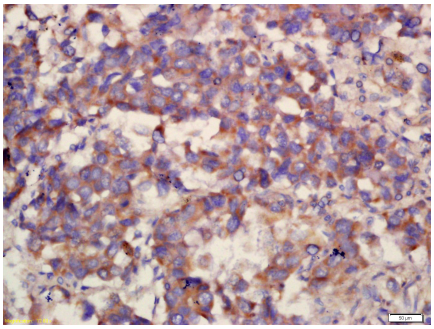
Protein Information

Name	COX6B2
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 {ECO:0000250|UniProtKB:P00429}; Peripheral membrane protein {ECO:0000250|UniProtKB:P00429}; Intermembrane side {ECO:0000250|UniProtKB:P00429}
Tissue Location	Testis specific. Weak expression in thymus and heart. Expressed in cancer cell lines.

Background

The cytochrome c oxidase (COX) family of proteins function as the final electron donor in the respiratory chain to drive a proton gradient across the inner mitochondrial membrane, ultimately resulting in the production of water. The mammalian COX apoenzyme is a dimer, with each monomer consisting of 13 subunits, some of which are mitochondrial and some of which are nuclear. Localized to the intermembrane space, COX6b2 (Cytochrome c oxidase subunit 6B2), also known as Cytochrome c oxidase subunit VIb isoform 2 and Cancer/testis antigen 59, is a 88 amino acid mitochondrial protein that is responsible for joining the two COX monomers to form the COX dimer. COX6b2 is specifically expressed in testis and is found to be upregulated in certain cancer cell lines.

Images



Tissue/cell: human lung carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min; Incubation: Anti-COX6B2 Polyclonal Antibody, Unconjugated(AP55377) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

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