

COX7A2 Rabbit pAb

Catalog # AP96715

Product Information

Application	WB
Primary Accession	P14406
Other Accession	P14406
Reactivity	Mouse
Predicted	Rat, Human, Rabbit, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	9396
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human COX7A2
Epitope Specificity	21-83/83
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the cytochrome c oxidase VIIa family.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Cytochrome c oxidase, the terminal component of the mitochondrial respiratory chain, catalyzes the electron transfer from reduced cytochrome c to oxygen. This component is a heteromeric complex consisting of three catalytic subunits encoded by mitochondrial genes, and multiple structural subunits encoded by nuclear genes. The mitochondrially-encoded subunits function in electron transfer, while the nuclear-encoded subunits may function in the regulation and assembly of the complex. This nuclear gene encodes polypeptide 2 (liver isoform) of subunit VIIa, with this polypeptide being present in both muscle and non-muscle tissues. In addition to polypeptide 2, subunit VIIa includes polypeptide 1 (muscle isoform), which is present only in muscle tissues, and a related protein, which is present in all tissues. Alternative splicing results in multiple transcript variants. Related pseudogenes have been identified on chromosomes 4 and 14. [provided by RefSeq]

Additional Information

Gene ID	1347
Other Names	COX7AL; COX7AL1; COXVIIAL; COXVIIa-L; VIIAL; Cox7a3; CX7A2_HUMAN; COX7A2; Cytochrome c oxidase subunit VIIa-liver/heart (Cytochrome c oxidase subunit VIIa-L Cytochrome c oxidase subunit VIIaL); CX7A2_MOUSE; Cytochrome c oxidase subunit VIIa-liver/heart (Cytochrome c oxidase subunit VIIa-L); CX7A2_RAT; cytochrome c oxidase subunit 7A2; cytochrome c oxidase subunit VIIa polypeptide 2 (liver)

Dilution	WB=1:500-2000
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	COX7A2
Synonyms	COX7AL
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; Single-pass membrane protein

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