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NDUFA4 Antibody - middle region

Rabbit Polyclonal Antibody
Catalog # AI16091

Product Information

Application	WB
Primary Accession	O00483
Other Accession	NP_002480
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	9370

Additional Information

Gene ID	4697
Alias Symbol	NDUFA4,
Other Names	Cytochrome c oxidase subunit NDUFA4, Complex I-MLRQ, CI-MLRQ, NADH-ubiquinone oxidoreductase MLRQ subunit, NDUFA4
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 50 &mu, l of distilled water. Final Anti-NDUFA4 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at -20°C. Avoid repeat freeze-thaw cycles.
Precautions	NDUFA4 Antibody - middle region is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	NDUFA4
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 unsing 4 electrons from cytochrome c in the IMS and 4 protons from the mitochondrial matrix (PubMed:22902835). NDUFA4 is required for complex IV maintenance (PubMed:22902835).

Cellular Location Mitochondrion inner membrane; Single-pass membrane protein

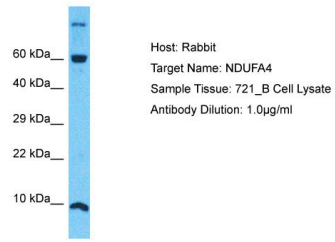
Background

Cytochrome c oxidase (COX, complex IV) is the terminal component of the mitochondrial respiratory chain that catalyzes the reduction of oxygen to water. Required for complex IV maintenance.

References

Kim J.W.,et al.Biochem. Mol. Biol. Int. 43:669-675(1997).
Kanagarajah D.,et al.Submitted (NOV-1999) to the EMBL/GenBank/DDBJ databases.
Ebert L.,et al.Submitted (MAY-2004) to the EMBL/GenBank/DDBJ databases.
Halleck A.,et al.Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.
Scherer S.W.,et al.Science 300:767-772(2003).

Images



Host: Rabbit
Target Name: NDUFA4
Sample Tissue: 721_B Whole Cell lysates
Antibody Dilution: 1.0µg/ml