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NDUFA4 Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP51381

Product Information

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

Additional Information

Gene ID	4697
Other Names	Cytochrome c oxidase subunit NDUFA4, Complex I-MLRQ, CI-MLRQ, NADH-ubiquinone oxidoreductase MLRQ subunit, NDUFA4
Target/Specificity	KLH conjugated synthetic peptide derived from human NDUFA4
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	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

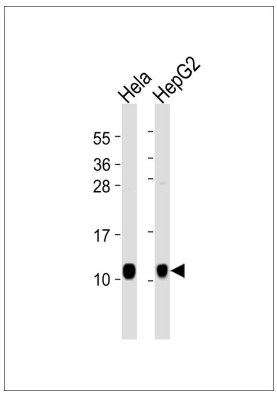
Background

Accessory subunit of the mitochondrial membrane respiratory chain NADH dehydrogenase (Complex I), that is believed to be not involved in catalysis. Complex I functions in the transfer of electrons from NADH to the respiratory chain. The immediate electron acceptor for the enzyme is believed to be ubiquinone.

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



All lanes : Anti-NDUFA4 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 : 9 kDa Blocking/Dilution buffer: 5% NFDM/TBST.