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NDUA4 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP20519b

Product Information

Application	WB, IF, IHC-P, E
Primary Accession	O00483
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	9370
Antigen Region	56-80

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	This NDUA4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 56-80 amino acids from the C-terminal region of human NDUA4.
Dilution	WB~~1:1000 IF~~1:25 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	NDUA4 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	COXFA4 (HGNC:7687)
Synonyms	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). COXFA4 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).

Citations

- OMA1 reprograms metabolism under hypoxia to promote colorectal cancer development

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