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NDUFS4 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6932b

Product Information

Application	IHC-P-Leica, FC, WB, E
Primary Accession	O43181
Reactivity	Human, Rat, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB21548
Calculated MW	20108
Antigen Region	131-160

Additional Information

Gene ID	4724
Other Names	NADH dehydrogenase [ubiquinone] iron-sulfur protein 4, mitochondrial, Complex I-18 kDa, CI-18 kDa, Complex I-AQDQ, CI-AQDQ, NADH-ubiquinone oxidoreductase 18 kDa subunit, NDUFS4
Target/Specificity	This NDUFS4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 131-160 amino acids from the C-terminal region of human NDUFS4.
Dilution	IHC-P-Leica~~1:250 FC~~1:10~50 WB~~1:1000 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	NDUFS4 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	NDUFS4
Function	Accessory subunit of the mitochondrial membrane respiratory chain NADH dehydrogenase (Complex I), that is believed not to be 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.

Cellular Location Mitochondrion inner membrane; Peripheral membrane protein; Matrix side. Note=The interaction with BCAP31 mediates mitochondria localization.

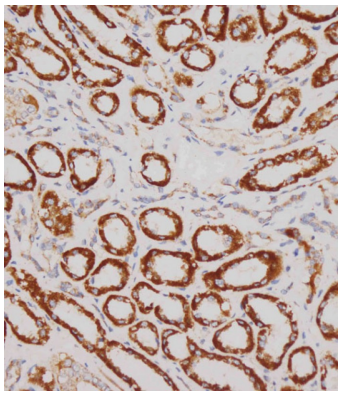
Background

NDUFS4 is an accessory subunit of the mitochondrial membrane respiratory chain NADH dehydrogenase(Complex I), or NADH:ubiquinone oxidoreductase, the first multi-subunit enzyme complex of the mitochondrial respiratory chain. Complex I plays a vital role in cellular ATP production, the primary source of energy for many crucial processes in living cells. It removes electrons from NADH and passes them by a series of different protein-coupled redox centers to the electron acceptor ubiquinone. In well-coupled mitochondria, the electron flux leads to ATP generation via the building of a proton gradient across the inner membrane.

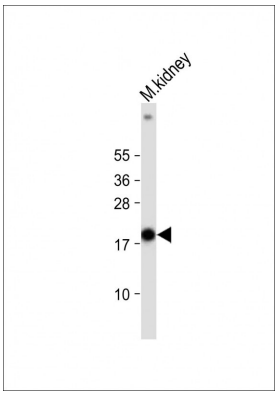
References

Panelli,D., et.al., Biochimie 90 (10), 1452-1460 (2008)

Images

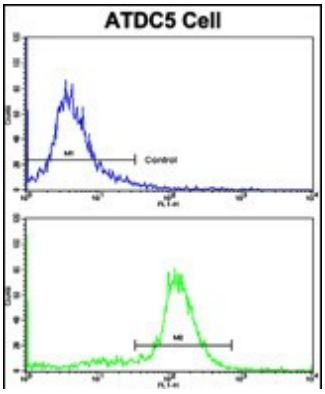


Immunohistochemical analysis of AP6932b on paraffin-embedded human kidney tissue was performed on the Leica® BOND RXm. Tissue was fixed with formaldehyde at room temperature. Heat induced epitope retrieval was performed by EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:250) for 15min at room temperature. Leica Bond Polymer Refine Detection was used as the secondary antibody.



Anti-NDUFS4 Antibody (C-term) at 1:2000 dilution + Mouse kidney tissue lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 20 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Flow cytometric analysis of ATDC5 cells using NDUFS4 Antibody (C-term)(bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



Citations

- Stable nuclear expression of ATP8 and ATP6 genes rescues a mtDNA Complex V null mutant.