10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

NDUA4 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AW5303

Specification

NDUA4 Antibody (C-term) - Product Information

Application	**IF, WB, IHC-P,E**
Primary Accession	O00483
Reactivity	**Human**
Predicted	**Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**H=9;M=9 KDa**
Isotype	**Rabbit IgG**
Antigen Source	**HUMAN**

NDUA4 Antibody (C-term) - Additional Information

Gene ID 4697

Antigen Region
56-80

Other Names
NDUFA4;NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 4

Dilution
IF~~1:25
WB~~1:1000
IHC-P~~1:25

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.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. 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.

NDUA4 Antibody (C-term) - Protein Information

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

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).

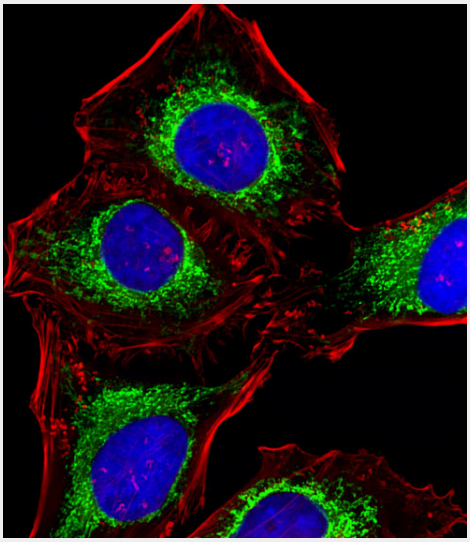
Cellular Location
Mitochondrion inner membrane; Single-pass membrane protein

NDUA4 Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

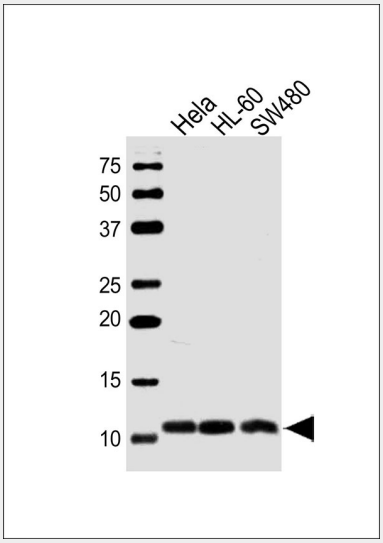
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

NDUA4 Antibody (C-term) - Images

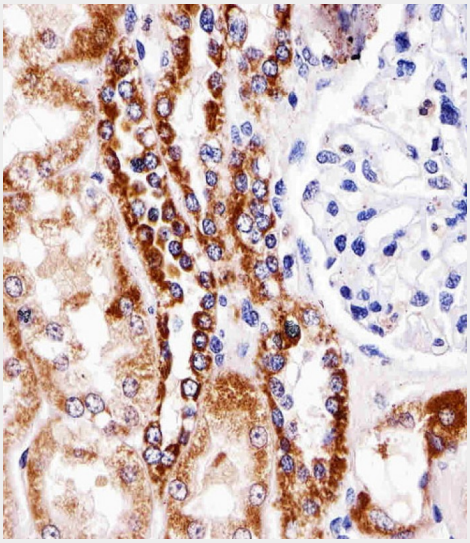


10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Fluorescent image of Hela cells stained with NDUA4 Antibody (C-term)(Cat#AW5303). AW5303 was diluted at 1:25 dilution. An Alexa Fluor 488-conjugated goat anti-rabbit IgG at 1:400 dilution was used as the secondary antibody (green). DAPI was used to stain the cell nuclear (blue). Cytoplasmic actin was counterstained with Alexa Fluor® 555 conjugated with Phalloidin (red).



Western blot analysis of lysates from Hela,HL-60,SW480 cell line (from left to right), using NDUA4 Antibody (C-term)(Cat. #AW5303). AW5303 was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody.



Immunohistochemical analysis of paraffin-embedded H. kidney section using NDUA4 Antibody (C-term)(Cat#AW5303). AW5303 was diluted at 1:25 dilution. A undiluted biotinylated goat polyvalent antibody was used as the secondary, followed by DAB staining.

NDUA4 Antibody (C-term) - 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.

NDUA4 Antibody (C-term) - 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).