

Rabbit NDUFB10 Polyclonal Antibody | anti-NDUFB10 antibody

Anti-NDUFB10 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA19339	Rabbit	Human, Mouse, Rat	Western Blot, Immunohistochemistry, Immunocytochemistry, Immunofluorescence, Flow Cytometry, Functional Assay, ELISA

PRODUCT SYNONYMS

NDUFB10; Polyclonal Antibody; Anti-NDUFB10 Antibody; NADH dehydrogenase [ubiquinone] 1 beta subcomplex subunit 10; Complex I-PDSW; CI-PDSW; NADH-ubiquinone oxidoreductase PDSW subunit; NADH:ubiquinone oxidoreductase subunit B10; anti-NDUFB10 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Rabbit IgG polyclonal antibody for NDUFB10 detection.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl and 0.2mg Na2HPO4.
Applicable Applications for anti-NDUFB10 antibody	WB (Western Blot), IHC (Immunohistochemistry), ICC (Immunocytochemistry), IF (Immunofluorescence), FCM/FACS (Flow Cytometry), ELISA (Direct ELISA)
Application Notes	WB: 0.1-0.25ug/ml Human, Mouse, Rat IHC-P: 2-5ug/ml Human, Mouse, Rat ICC/IF: 5ug/ml Human FC/FACS/FCM: 1-3ug/1x106 cells Human Direct ELISA: 0.1-0.5ug/ml Human
Immunogen	E Coli-derived human NDUFB10 recombinant protein (Position: D36-S172).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Recommended Detection Systems	Recommended Detection Systems
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.



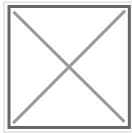
FCM (Flow Cytometry)

Figure 9. Flow Cytometry analysis of HL-60 cells using anti-NDUFB10 antibody (AAA19339). Overlay histogram showing HL-60 cells stained with AAA19339 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-NDUFB10 Antibody (AAA19339, 1μg/1x10⁶ cells) for 30 min at 20 degree C. DyLight®488 conjugated goat anti-rabbit IgG (5-10μg/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1μg/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



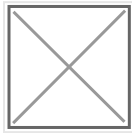
IF (Immunofluorescence)

Figure 8. IF analysis of NDUFB10 using anti-NDUFB10 antibody (AAA19339). NDUFB10 was detected in immunocytochemical section of MCF-7 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5μg/mL rabbit anti-NDUFB10 Antibody (AAA19339) overnight at 4 degree C. DyLight®488 Conjugated Goat Anti-Rabbit IgG was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37 degree C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



IHC (Immunohistochemistry)

Figure 7. IHC analysis of NDUFB10 using anti-NDUFB10 antibody (AAA19339). NDUFB10 was detected in paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/mL rabbit anti-NDUFB10 Antibody (AAA19339) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen).



IHC (Immunohistochemistry)

Figure 6. IHC analysis of NDUFB10 using anti-NDUFB10 antibody (AAA19339). NDUFB10 was detected in paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/mL rabbit anti-NDUFB10 Antibody (AAA19339) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen).



IHC (Immunohistochemistry)

Figure 5. IHC analysis of NDUFB10 using anti-NDUFB10 antibody (AAA19339). NDUFB10 was detected in paraffin-embedded section of human gastric cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/mL rabbit anti-NDUFB10 Antibody (AAA19339) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen).



IHC (Immunohistochemistry)

Figure 4. IHC analysis of NDUFB10 using anti-NDUFB10 antibody (AAA19339). NDUFB10 was detected in paraffin-embedded section of human prostate cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/mL rabbit anti-NDUFB10 Antibody (AAA19339) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen).

ADDITIONAL INFORMATION

Related Product Information for anti-NDUFB10 antibody

NADH dehydrogenase [ubiquinone] 1 beta subcomplex subunit 10 is an enzyme that in humans is encoded by the NDUFB10 gene. The protein encoded by this gene is an accessory subunit of the multisubunit NADH:ubiquinone oxidoreductase (complex I) that is not directly involved in catalysis. Mammalian complex I is composed of 45 different subunits. It locates at the mitochondrial inner membrane. This protein complex has NADH dehydrogenase activity and oxidoreductase activity. It transfers electrons from NADH to the respiratory chain. The immediate electron acceptor for the enzyme is believed to be ubiquinone. Alternative splicing occurs at this locus and two transcript variants encoding distinct isoforms have been identified. [7] Initially, NADH binds to Complex I and transfers two electrons to the isoalloxazine ring of the flavin mononucleotide (FMN) prosthetic arm to form FMNH2. The electrons are transferred through a series of iron-sulfur (Fe-S) clusters in the prosthetic arm and finally to coenzyme Q10 (CoQ), which is reduced to ubiquinol (CoQH2). The flow of electrons changes the redox state of the protein, resulting in a conformational change and pK shift of the ionizable side chain, which pumps four hydrogen ions out of the mitochondrial matrix.

References	1. Emahazion, T., Beskow, A., Gyllensten, U., Brookes, A. J. Intron based radiation hybrid mapping of 15 complex I genes of the human electron transport chain. Cytogenet. Cell Genet. 82: 115-119, 1998. 2. Loeffen, J. L. C. M., Triepels, R. H., van den Heuvel, L. P., Schuelke, M., Buskens, C. A. F., Smeets, R. J. P., Trijbels, J. M. F., Smeitink, J. A. M. cDNA of eight nuclear encoded subunits of NADH:ubiquinone oxidoreductase: human complex I cDNA characterization completed. Biochem. Biophys. Res. Commun. 253: 415-422, 1998. 3. Smeitink, J., van den Heuvel, L. Human mitochondrial complex I in health and disease. Am. J. Hum. Genet. 64: 1505-1510, 1999.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	4758774
NCBI GeneID	4716
NCBI Accession #	NP_004539.1
NCBI GenBank Nucleotide #	NM_004548.2
UniProt Accession #	O96000
Molecular Weight	20,777 Da
NCBI Official Full Name	NADH dehydrogenase
NCBI Official Synonym Full Names	NADH dehydrogenase (ubiquinone) 1 beta subcomplex, 10, 22kDa
NCBI Official Symbol	NDUFB10
NCBI Official Synonym Symbols	PDSW
NCBI Protein Information	NADH dehydrogenase [ubiquinone] 1 beta subcomplex subunit 10; NADH dehydrogenase [ubiquinone] 1 beta subcomplex subunit 10; CI-PDSW; complex I-PDSW; complex I PDSW subunit; NADH-ubiquinone oxidoreductase PDSW subunit; NADH ubiquinone oxidoreductase PDSW s
UniProt Protein Name	NADH dehydrogenase [ubiquinone] 1 beta subcomplex subunit 10
UniProt Gene Name	NDUFB10
UniProt Synonym Gene Names	CI-PDSW
UniProt Entry Name	NDUBA_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.