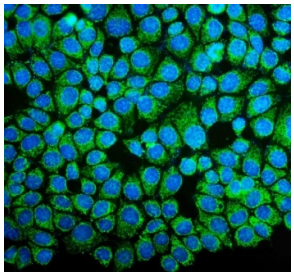
NDUFB10 Antibody (RQ6200)

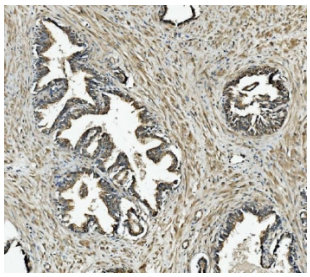
Catalog No.	Formulation	Size
RQ6200	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

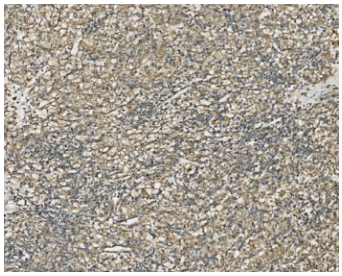
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	O96000
Localization	Cytoplasmic
Applications	Western blot: 1-2ug/ml Immunohistochemistry (FFPE): 2-5ug/ml Immunofluorescence: 5ug/ml Flow cytometry: 1-3ug/million cells Direct ELISA: 0.1-0.5ug/ml
Limitations	This NDUFB10 antibody is available for research use only.



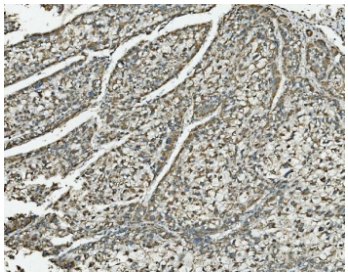
Immunofluorescent staining of FFPE human MCF7 cells with NDUFB10 antibody (green) and DAPI nuclear stain (blue). HIER: steam section in pH6 citrate buffer for 20 min.



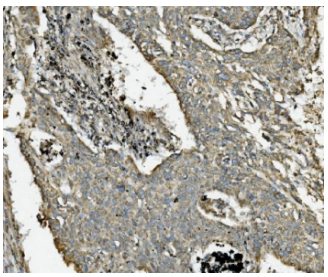
IHC staining of FFPE human prostate cancer with NDUFB10 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



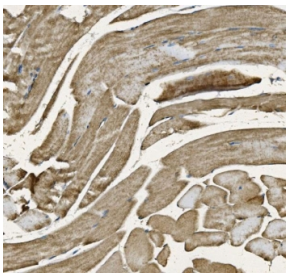
IHC staining of FFPE human gastric cancer with NDUFB10 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



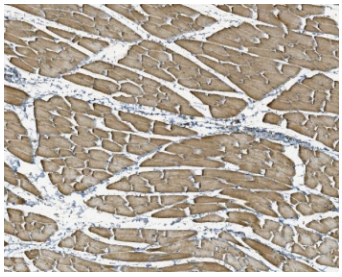
IHC staining of FFPE human liver cancer with NDUFB10 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



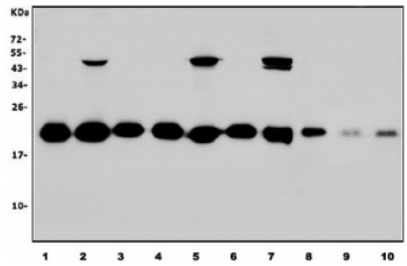
IHC staining of FFPE human lung cancer with NDUFB10 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



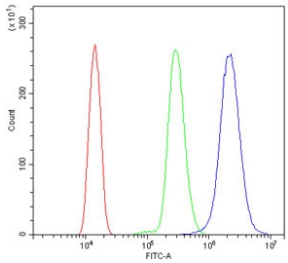
IHC staining of FFPE mouse skeletal muscle with NDUFB10 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



IHC staining of FFPE rat skeletal muscle with NDUFB10 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Western blot testing of human 1) HeLa, 2) HepG2, 3) Jurkat, 4) HEK293, 5) MCF7, 6) PC-3, 7) A549, 8) HL60, 9) rat liver and 10) mouse liver lysate with NDUFB10 antibody. Predicted molecular weight ~22 kDa.



Flow cytometry testing of human HL60 cells with NDUFB10 antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= NDUFB10 antibody.

Description

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. 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.

Application Notes

Optimal dilution of the NDUFB10 antibody should be determined by the researcher.

Immunogen

A human recombinant partial protein (amino acids D36-S172) was used as the immunogen for the NDUFB10 antibody.

Storage

After reconstitution, the NDUFB10 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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