

# **Anti-NDUFAB1 Rabbit Monoclonal Antibody**

**Catalog # ABO16558** 

# **Specification**

# Anti-NDUFAB1 Rabbit Monoclonal Antibody - Product Information

Application WB, IHC, IP, FC

Primary Accession
Host
Rabbit
Isotype
IgG

Reactivity Rat, Human, Mouse

Clonality Monoclonal Format Liquid

**Description** 

Anti-NDUFAB1 Rabbit Monoclonal Antibody . Tested in WB, IHC, IP, Flow Cytometry applications.

This antibody reacts with Human, Mouse, Rat.

# **Anti-NDUFAB1 Rabbit Monoclonal Antibody - Additional Information**

#### **Gene ID 4706**

## **Other Names**

Acyl carrier protein, mitochondrial, ACP, CI-SDAP, NADH-ubiquinone oxidoreductase 9.6 kDa subunit, NDUFAB1 (<a

href="http://www.genenames.org/cgi-bin/gene\_symbol\_report?hgnc\_id=7694" target=" blank">HGNC:7694</a>)

# **Calculated MW**

10 kDa KDa

### **Application Details**

WB 1:500-1:2000<br>IHC 1:50-1:200<br>IP 1:50<br>FC 1:50

## **Contents**

Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

### **Immunogen**

A synthesized peptide derived from human NDUFAB1

#### **Purification**

Affinity-chromatography

Storage Store at -20°C for one year. For short term

storage and frequent use, store at 4°C for

up to one month. Avoid repeated

freeze-thaw cycles.

# **Anti-NDUFAB1 Rabbit Monoclonal Antibody - Protein Information**



# Name NDUFAB1 (HGNC:7694)

#### **Function**

Carrier of the growing fatty acid chain in fatty acid biosynthesis (By similarity) (PubMed: <a href="http://www.uniprot.org/citations/27626371" target="\_blank">27626371</a>). Accessory and non- catalytic subunit of the mitochondrial membrane respiratory chain NADH dehydrogenase (Complex I), which functions in the transfer of electrons from NADH to the respiratory chain (PubMed:<a href="http://www.uniprot.org/citations/27626371" target=" blank">27626371</a>). Accessory protein, of the core iron-sulfur cluster (ISC) assembly complex, that regulates, in association with LYRM4, the stability and the cysteine desulfurase activity of NFS1 and participates in the [2Fe-2S] clusters assembly on the scaffolding protein ISCU (PubMed: <a href="http://www.uniprot.org/citations/31664822" target=" blank">31664822</a>). The core iron-sulfur cluster (ISC) assembly complex is involved in the de novo synthesis of a [2Fe-2S] cluster, the first step of the mitochondrial iron-sulfur protein biogenesis. This process is initiated by the cysteine desulfurase complex (NFS1:LYRM4:NDUFAB1) that produces persulfide which is delivered on the scaffold protein ISCU in a FXN- dependent manner. Then this complex is stabilized by FDX2 which provides reducing equivalents to accomplish the [2Fe-2S] cluster assembly. Finally, the [2Fe-2S] cluster is transferred from ISCU to chaperone proteins, including HSCB, HSPA9 and GLRX5 (By similarity).

# **Cellular Location**

Mitochondrion

### Anti-NDUFAB1 Rabbit Monoclonal Antibody - 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

# **Anti-NDUFAB1 Rabbit Monoclonal Antibody - Images**

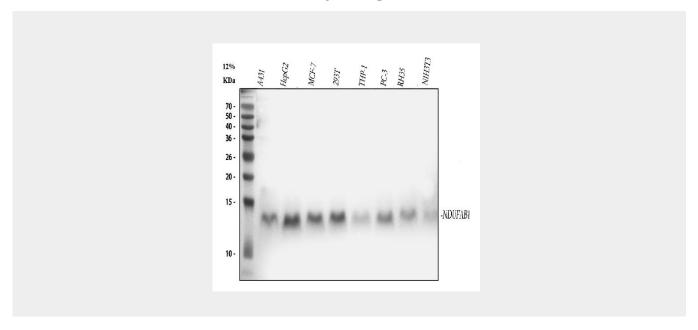




Figure 1. Western blot analysis of NDUFAB1 using anti-NDUFAB1 antibody (M09620). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human A431 whole cell lysates,

Lane 2: human HepG2 whole cell lysates,

Lane 3: human MCF-7 whole cell lysates,

Lane 4: human 293T whole cell lysates,

Lane 5: human THP-1 whole cell lysates,

Lane 6: human PC-3 whole cell lysates,

Lane 7: rat RH35 whole cell lysates,

Lane 8: mouse NIH/3T3 whole cell lysates.

After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-NDUFAB1 antigen affinity purified monoclonal antibody (Catalog # M09620) at 1:500 overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:500 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for NDUFAB1 at approximately 14 kDa. The expected band size for NDUFAB1 is at 17 kDa.

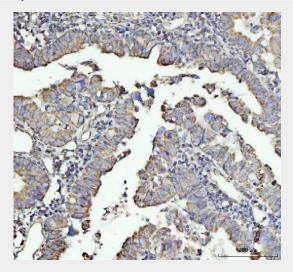


Figure 2. IHC analysis of NDUFAB1 using anti-NDUFAB1 antibody (MM09620). NDUFAB1 was detected in a paraffin-embedded section of human colorectal adenocarcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1:50 rabbit anti-NDUFAB1 Antibody (M09620) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



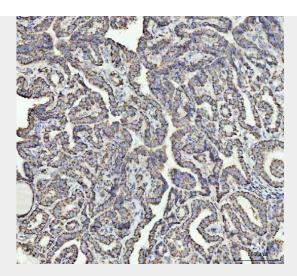


Figure 3. IHC analysis of NDUFAB1 using anti-NDUFAB1 antibody (MM09620). NDUFAB1 was detected in a paraffin-embedded section of human thyroid cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1:50 rabbit anti-NDUFAB1 Antibody (M09620) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

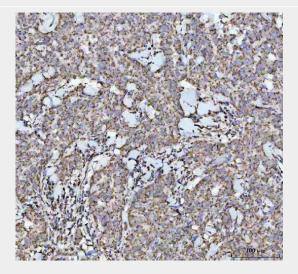


Figure 4. IHC analysis of NDUFAB1 using anti-NDUFAB1 antibody (MM09620). NDUFAB1 was detected in a paraffin-embedded section of human breast cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1:50 rabbit anti-NDUFAB1 Antibody (M09620) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



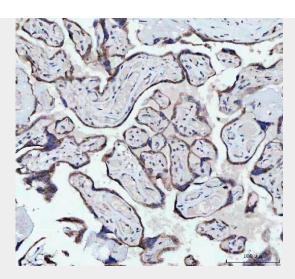


Figure 5. IHC analysis of NDUFAB1 using anti-NDUFAB1 antibody (MM09620). NDUFAB1 was detected in a paraffin-embedded section of human placenta tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1:50 rabbit anti-NDUFAB1 Antibody (M09620) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

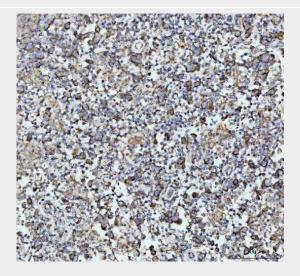


Figure 6. IHC analysis of NDUFAB1 using anti-NDUFAB1 antibody (MM09620). NDUFAB1 was detected in a paraffin-embedded section of human testicular germ cell tumor tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1:50 rabbit anti-NDUFAB1 Antibody (M09620) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.