

**Anti-NDUFA1 Antibody**  
Catalog # ABO10976

**Specification**

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**Anti-NDUFA1 Antibody - Product Information**

Application	WB, IHC
Primary Accession	<a href="#">O15239</a>
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for NADH dehydrogenase[ubiquinone] 1 alpha subcomplex subunit 1(NDUFA1) detection. Tested with WB, IHC-P, IHC-F, ICC in Human;Mouse;Rat.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-NDUFA1 Antibody - Additional Information**

**Gene ID** 4694

**Other Names**

NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 1, Complex I-MWFE, CI-MWFE, NADH-ubiquinone oxidoreductase MWFE subunit, NDUFA1

**Calculated MW**

8072 MW KDa

**Application Details**

Immunocytochemistry , 0.5-1 µg/ml, Human, Mouse, Rat<br>Immunohistochemistry(Frozen Section), 0.5-1 µg/ml, Rat, Human, Mouse<br>Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat<br>Western blot, 0.1-0.5 µg/ml, Human, Rat, Mouse<br>

**Subcellular Localization**

Mitochondrion inner membrane; Single-pass membrane protein; Matrix side.

**Tissue Specificity**

Primarily expressed in heart and skeletal muscle.

**Protein Name**

NADH dehydrogenase[ubiquinone] 1 alpha subcomplex subunit 1

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Thimerosal, 0.05mg NaN<sub>3</sub>.

**Immunogen**

A synthetic peptide corresponding to a sequence at the C-terminus of human NDUFA1(54-70aa

ISGVDRYYVSKGLENID), different from the related rat and mouse sequences by one amino acid.

#### **Purification**

Immunogen affinity purified.

#### **Cross Reactivity**

No cross reactivity with other proteins

#### **Storage**

**At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.**

### **Anti-NDUFA1 Antibody - Protein Information**

**Name** NDUFA1

#### **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; Single-pass membrane protein; Matrix side

#### **Tissue Location**

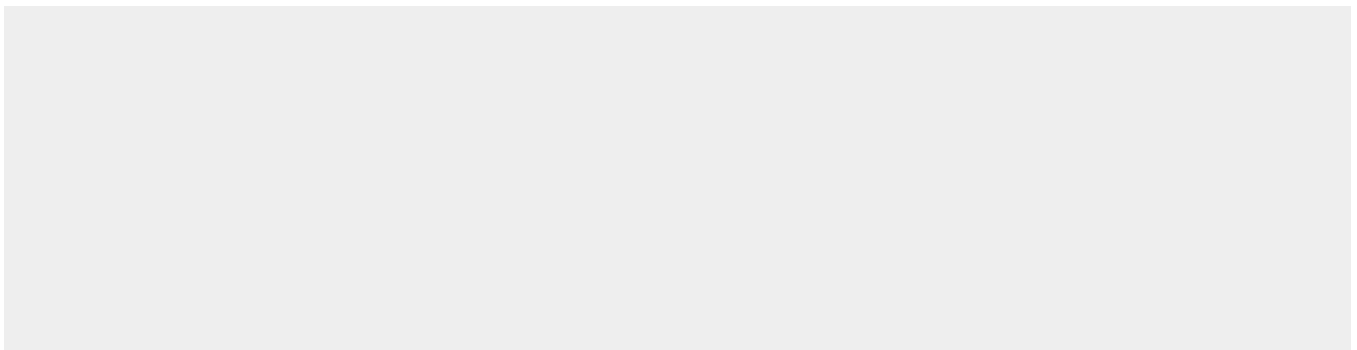
Primarily expressed in heart and skeletal muscle.

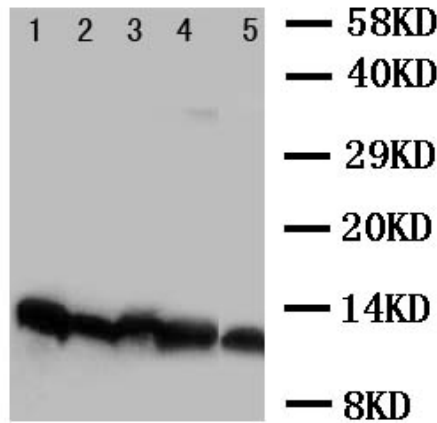
### **Anti-NDUFA1 Antibody - Protocols**

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

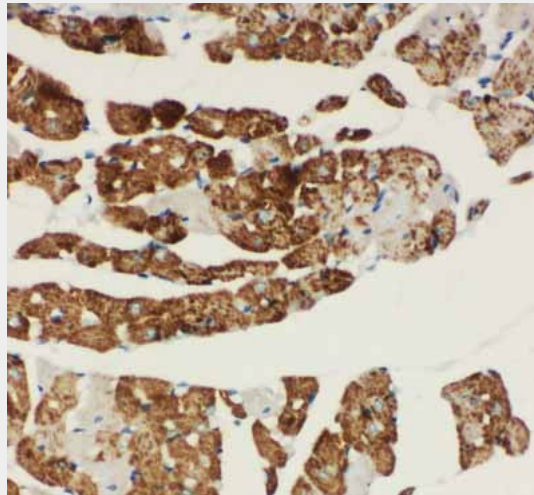
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### **Anti-NDUFA1 Antibody - Images**

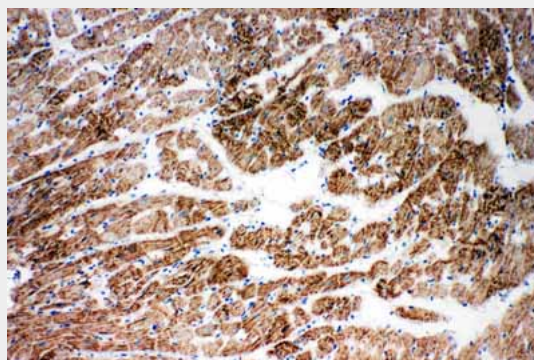




Anti-NDUFA1 antibody, ABO10976, Western blotting  
 Lane 1: Rat Cardiac Muscle Tissue Lysate  
 Lane 2: Rat Liver Tissue Lysate  
 Lane 3: Rat Kidney Tissue Lysate  
 Lane 4: Rat Brain Tissue Lysate  
 Lane 5: HT1080 Cell Lysate



Anti-NDUFA1 antibody, ABO10976, IHC(P)  
 IHC(P): Rat Cardiac Muscle Tissue



Anti-NDUFA1 antibody, ABO10976, IHC(F)  
 IHC(F): Rat Cardiac Muscle Tissue

**Anti-NDUFA1 Antibody - Background**

NDUFA1(NADH-UBIQUINONE OXIDOREDUCTASE 1 ALPHA SUBCOMPLEX, 1), also called MWFE, B. TAURUS, HOMOLOG OF, encodes a subunit of mitochondrial NADH: ubiquinone oxidoreductase, also known as mitochondrial complex I. The NDUFA1 gene is mapped to chromosome Xq24. The

deduced polypeptide sequence of NDUFA1 was found to have an N-terminal hydrophobic domain, likely to be a transmembrane domain, and a C-terminal hydrophilic domain. And the NDUFA1 gene contains 3 exons and spans about 5.0 kb of genomic DNA. Complementation with hamster Ndufa1 cDNA restored the rotenone-sensitive complex I activity of these mutant cells to approximately 100% of the parent cell activity. The findings established that the MWFE polypeptide is absolutely essential for an active complex I in mammals. The NDUFA1 peptide is one of about 31 components of the hydrophobic protein"(HP) fraction of complex I which is involved in proton translocation. Thus the NDUFA1 peptide may also participate in that function."