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

Anti-NDUFA1 Antibody
Catalog # ABO10976

Specification

Anti-NDUFA1 Antibody - Product Information

Application	**WB, IHC-P, IHC-F, ICC**
Primary Accession	O15239
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
Immunohistochemistry(Frozen Section), 0.5-1 µg/ml, Rat, Human, Mouse
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat
Western blot, 0.1-0.5 µg/ml, Human, Rat, Mouse

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 Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.

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 r˚Constitution, 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 Cytomety
- Cell Culture

Anti-NDUFA1 Antibody - Images

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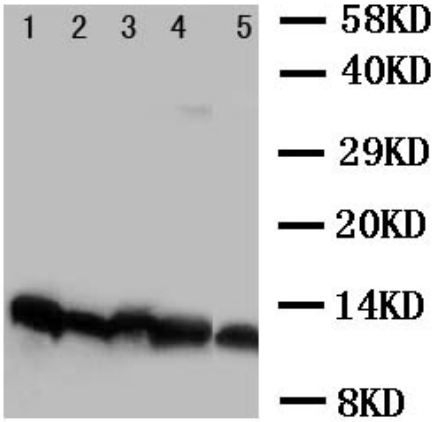
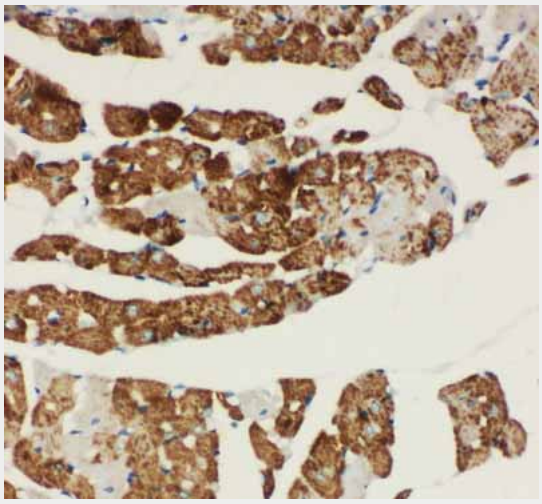
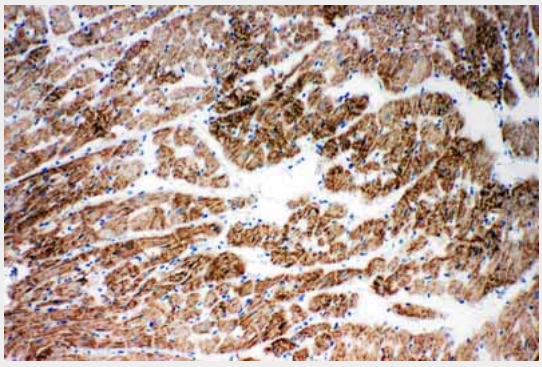


Anti-NDUFA1 antibody, ABO10976, Western blottingLane 1: Rat Cardiac Muscle Tissue Lysate Lane 2: Rat Liver Tissue LysateLane 3: Rat Kidney Tissue LysateLane 4: Rat Brain Tissue LysateLane 5: HT1080 Cell Lysate



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."