

NDUFA1 Antibody (monoclonal) (M01)

Mouse monoclonal antibody raised against a full length recombinant NDUFA1.

Catalog # AT2998a

Specification

NDUFA1 Antibody (monoclonal) (M01) - Product Information

Application	WB
Primary Accession	O15239
Other Accession	BC000266
Reactivity	Human
Host	mouse
Clonality	Monoclonal
Isotype	IgG1 kappa
Calculated MW	8072

NDUFA1 Antibody (monoclonal) (M01) - 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

Target/Specificity

NDUFA1 (AAH00266, 24 a.a. ~ 70 a.a) full-length recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.

Dilution

WB~~1:500~1000

Format

Clear, colorless solution in phosphate buffered saline, pH 7.2 .

Storage

Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

Precautions

NDUFA1 Antibody (monoclonal) (M01) is for research use only and not for use in diagnostic or therapeutic procedures.

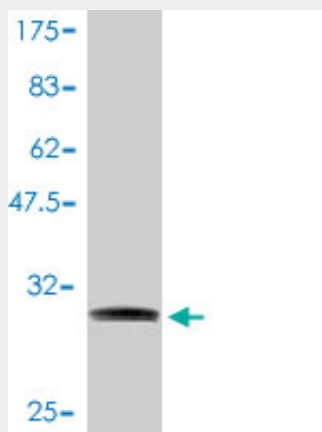
NDUFA1 Antibody (monoclonal) (M01) - Protocols

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](#)

NDUFA1 Antibody (monoclonal) (M01) - Images



Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (30.91 kDa) .

NDUFA1 Antibody (monoclonal) (M01) - Background

The human NDUFA1 gene codes for an essential component of complex I of the respiratory chain, which transfers electrons from NADH to ubiquinone. It has been noted that the N-terminal hydrophobic domain has the potential to be folded into an alpha-helix spanning the inner mitochondrial membrane with a C-terminal hydrophilic domain interacting with globular subunits of complex I. The highly conserved two-domain structure suggests that this feature is critical for the protein function and might act as an anchor for the NADH:ubiquinone oxidoreductase complex at the inner mitochondrial membrane. However, 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.

NDUFA1 Antibody (monoclonal) (M01) - References

Mitochondrial bioenergetics and dynamics interplay in complex I-deficient fibroblasts. Morfn M, et al. *Biochim Biophys Acta*, 2010 May. PMID 20153825. Association study between single-nucleotide polymorphisms in 199 drug-related genes and commonly measured quantitative traits of 752 healthy Japanese subjects. Saito A, et al. *J Hum Genet*, 2009 Jun. PMID 19343046. A novel NDUFA1 mutation leads to a progressive mitochondrial complex I-specific neurodegenerative disease. Potluri P, et al. *Mol Genet Metab*, 2009 Apr. PMID 19185523. X-linked NDUFA1 gene mutations associated with mitochondrial encephalomyopathy. Fernandez-Moreira D, et al. *Ann Neurol*, 2007 Jan. PMID 17262856. Identification of mitochondrial complex I assembly intermediates by tracing tagged NDUF53 demonstrates the entry point of mitochondrial subunits. Vogel RO, et al. *J Biol Chem*, 2007 Mar 9. PMID 17209039.