10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.622.0609

NDUFS4 Antibody (monoclonal) (M01)

Mouse monoclonal antibody raised against a partial recombinant NDUFS4.

Catalog # AT3007a

Specification

NDUFS4 Antibody (monoclonal) (M01) - Product Information

Application	**WB, IHC, E**
Primary Accession	O43181
Other Accession	NM_002495
Reactivity	**Human**
Host	**mouse**
Clonality	**Monoclonal**
Isotype	**IgG2a Kappa**
Calculated MW	**20108**

NDUFS4 Antibody (monoclonal) (M01) - Additional Information

Gene ID 4724

Other Names
NADH dehydrogenase [ubiquinone] iron-sulfur protein 4, mitochondrial, Complex I-18 kDa, CI-18 kDa, Complex I-AQDQ, CI-AQDQ, NADH-ubiquinone oxidoreductase 18 kDa subunit, NDUFS4

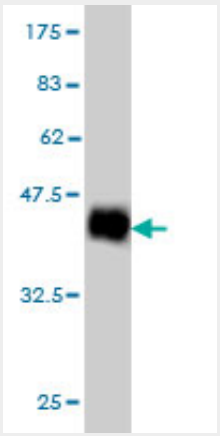
Target/Specificity
NDUFS4 (NP_002486, 66 a.a. ~ 175 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.

Dilution
WB~~1:500~1000

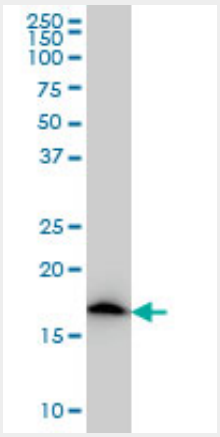
Format
Clear, colorless solution in phosphate buffered saline, pH 7.2 .

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

Precautions
NDUFS4 Antibody (monoclonal) (M01) is for research use only and not for use in diagnostic or therapeutic procedures.



Antibody Reactive Against Recombinant Protein.Western Blot detection against Immunogen (37.84 KDa) .



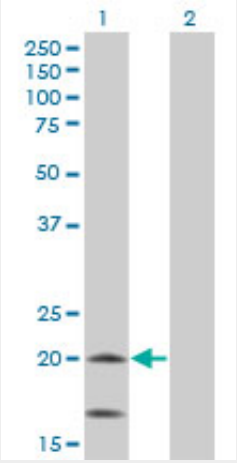
NDUFS4 monoclonal antibody (M01), clone 1A1 Western Blot analysis of NDUFS4 expression in A-431 ((Cat # AT3007a)

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.622.0609

NDUFS4 Antibody (monoclonal) (M01) - Protocols

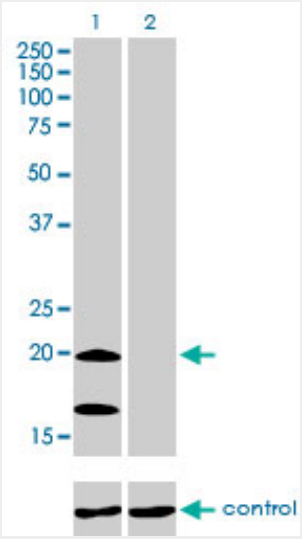
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture



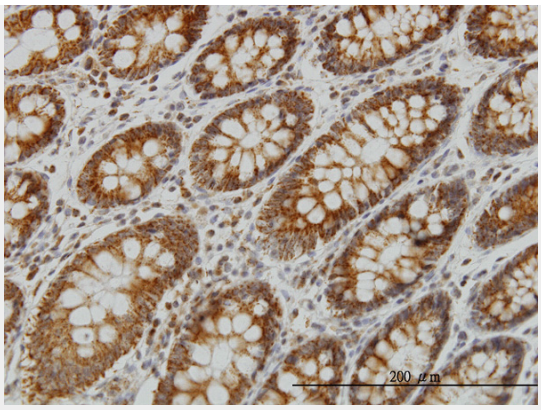
Western Blot analysis of NDUFS4 expression in transfected 293T cell line by NDUFS4 monoclonal antibody (M01), clone 1A1.

Lane 1: NDUFS4 transfected lysate(20.1 KDa).
Lane 2: Non-transfected lysate.

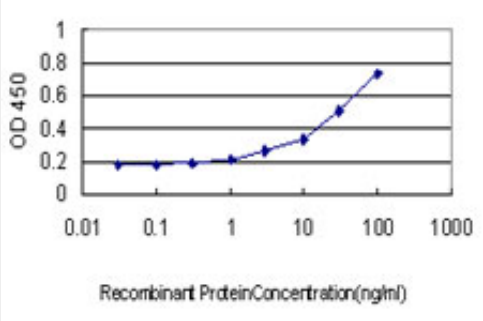


Western blot analysis of NDUFS4 over-expressed 293 cell line, cotransfected with NDUFS4 Validated Chimera RNAi ((Cat # AT3007a)

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.622.0609



Immunoperoxidase of monoclonal antibody to NDUFS4 on formalin-fixed paraffin-embedded human colon. [antibody concentration 1 ug/ml]



Detection limit for recombinant GST tagged NDUFS4 is approximately 0.3ng/ml as a capture antibody.

NDUFS4 Antibody (monoclonal) (M01) - Background

This gene encodes an accessory subunit of the mitochondrial membrane respiratory chain NADH dehydrogenase (Complex I), or NADH:ubiquinone oxidoreductase, the first multi-subunit enzyme complex of the mitochondrial respiratory chain. Complex I plays a vital role in cellular ATP production, the primary source of energy for many crucial processes in living cells. It removes electrons from NADH and passes them by a series of different protein-coupled redox centers to the electron acceptor ubiquinone. In well-coupled mitochondria, the electron flux leads to ATP generation via the building of a proton gradient across the inner membrane. Complex I is composed of at least 41 subunits, of which 7 are encoded by the mitochondrial genome and the remainder by nuclear genes.

NDUFS4 Antibody (monoclonal) (M01) - References

NDUFS4 mutations cause Leigh syndrome with predominant brainstem involvement. Leshinsky-Silver E, et al. Mol Genet Metab, 2009 Jul. PMID 19364667.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.Polymorphisms in mitochondrial genes and prostate cancer risk. Wang L, et al. Cancer Epidemiol Biomarkers Prev, 2008 Dec. PMID 19064571.Oxidative stress, telomere length and biomarkers of physical aging in a cohort aged 79 years from the 1932 Scottish Mental Survey. Starr JM, et al. Mech Ageing Dev, 2008 Dec. PMID 18977241.The regulation of PTC containing transcripts of the human NDUFS4 gene of complex I of respiratory chain and the impact of pathological mutations. Panelli D, et al. Biochimie, 2008 Oct. PMID 18555024.