

**NDUFS4 Antibody (monoclonal) (M01)****Mouse monoclonal antibody raised against a partial recombinant NDUFS4.****Catalog # AT3007a****Specification**

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**NDUFS4 Antibody (monoclonal) (M01) - Product Information**

Application	WB, IHC, E
Primary Accession	<a href="#">O43181</a>
Other Accession	<a href="#">NM_002495</a>
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

IHC~~1:100~500

E~~N/A

**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.

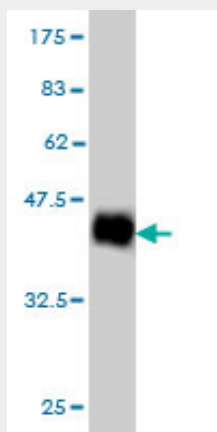
**NDUFS4 Antibody (monoclonal) (M01) - Protocols**

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

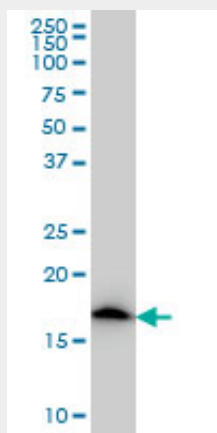
- [Western Blot](#)

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

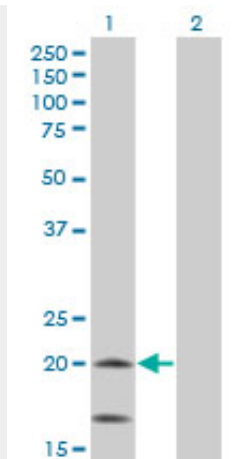
#### NDUFS4 Antibody (monoclonal) (M01) - Images



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



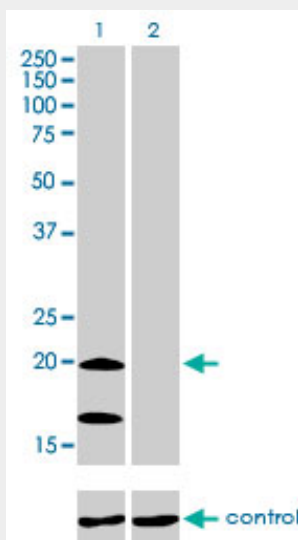
NDUFS4 monoclonal antibody (M01), clone 1A1 Western Blot analysis of NDUFS4 expression in A-431 ( Cat # AT3007a )



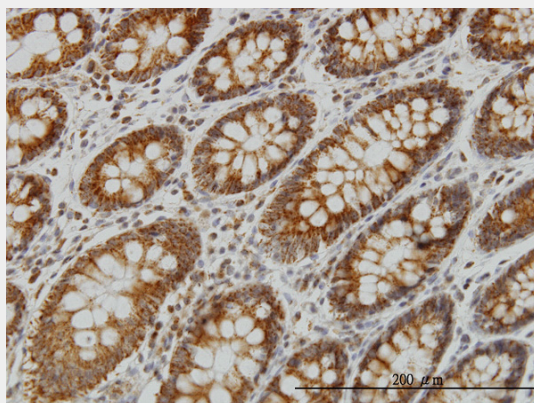
Western Blot analysis of NDUF54 expression in transfected 293T cell line by NDUF54 monoclonal antibody (M01), clone 1A1.

Lane 1: NDUF54 transfected lysate(20.1 KDa).

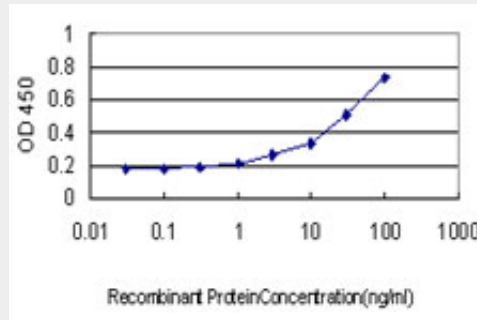
Lane 2: Non-transfected lysate.



Western blot analysis of NDUF54 over-expressed 293 cell line, cotransfected with NDUF54 Validated Chimera RNAi ( Cat # AT3007a )



Immunoperoxidase of monoclonal antibody to NDUF54 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.