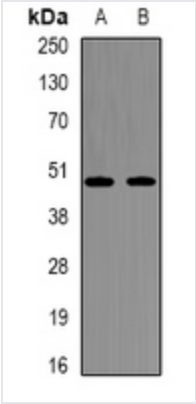
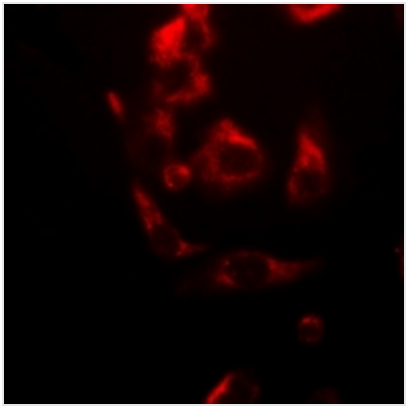
NDUFV1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	NDUFV1, Polyclonal Antibody
Full Product Name	Anti-NDUFV1 Antibody
Product Gene Name	anti-NDUFV1 antibody
Product Synonym Names	UQOR1; NADH dehydrogenase [ubiquinone] flavoprotein 1, mitochondrial; Complex I-51kD; CI-51kD; NADH dehydrogenase flavoprotein 1; NADH-ubiquinone oxidoreductase 51 kDa subunit
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Form/Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Purity/Purification	The antibody was purified by immunogen affinity chromatography.
Specificity	Recognizes endogenous levels of NDUFV1 protein.
Preparation and Storage	Shipped at 4 degree C. Upon delivery aliquot and store at -20 degree C for one year. Avoid freeze/thaw cycles.
Molecular Weight	49,868 Da
OMIM	161015
3D Structure	ModBase 3D Structure for P49821
Immunogen	Recombinant full length protein of human NDUFV1
Applications Tested/Suitable for anti-NDUFV1 antibody	Western Blot (WB), Immunofluorescence (IF), Immunocytochemistry (ICC)
Application Notes for anti-NDUFV1 antibody	Western Blot: 1/500 - 1/2000, Immunofluorescence/Immunocytochemistry: 1/50 - 1/100
Related Product Information for anti-NDUFV1 antibody	MBS8247525 is an antibody targeting NDUFV1. Reactive in Human, Mouse, Rat. Host: Rabbit. Rabbit polyclonal antibody to NDUFV1
Other Notes	Small volumes of anti-NDUFV1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



Western Blot (WB) of anti-NDUFV1 antibody
Western blot analysis of NDUFV1 expression in mouse kidney (A), rat brain (B) whole cell lysates.



Immunofluorescence (IF) of anti-NDUFV1 antibody
Immunofluorescent analysis of NDUFV1 staining in A549 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for NDUFV1. It may not necessarily be applicable to this product.

NCBI GI #	260656005
NCBI GeneID	4723
NCBI Accession #	NP_001159574.1
UniProt Primary Accession #	P49821
UniProt Secondary Accession #	O60924; O60940; Q16104; Q6IBR3; Q96BF8; Q96HS7
UniProt Related Accession #	P49821
GenBank Nucleotide #	NM_001166102.1
NCBI Official Full Name	NADH dehydrogenase
NCBI Official Synonym Full Names	NADH:ubiquinone oxidoreductase core subunit V1
NCBI Official Symbol	NDUFV1
NCBI Official Synonym Symbols	UQOR1; CI-51K; CI51KD
UniProt Protein Name	NADH dehydrogenase [ubiquinone] flavoprotein 1, mitochondrial
UniProt Synonym Protein Names	Complex I-51kD; CI-51kD; NADH dehydrogenase flavoprotein 1; NADH-ubiquinone oxidoreductase 51 kDa subunit
UniProt Gene Name	NDUFV1
UniProt Synonym Gene Names	UQOR1; CI-51kD
UniProt Entry Name	NDUV1_HUMAN
NCBI Protein Information	NADH dehydrogenase [ubiquinone] flavoprotein 1, mitochondrial

NCBI Summary for NDUFV1	The mitochondrial respiratory chain provides energy to cells via oxidative phosphorylation and consists of four membrane-bound electron-transporting protein complexes (I-IV) and an ATP synthase (complex V). This gene encodes a 51 kDa subunit of the NADH:ubiquinone oxidoreductase complex I; a large complex with at least 45 nuclear and mitochondrial encoded subunits that liberates electrons from NADH and channels them to ubiquinone. This subunit carries the NADH-binding site as well as flavin mononucleotide (FMN)- and Fe-S-biding sites. Defects in complex I are a common cause of mitochondrial dysfunction; a syndrome that occurs in approximately 1 in 10,000 live births. Mitochondrial complex I deficiency is linked to myopathies, encephalomyopathies, and neurodegenerative disorders such as Parkinson's disease and Leigh syndrome. Alternative splicing results in multiple transcript variants encoding distinct isoforms.[provided by RefSeq, Oct 2009]
UniProt Comments for NDUFV1	NDUFV1: Core subunit of the mitochondrial membrane respiratory chain NADH dehydrogenase (Complex I) that is believed to belong to the minimal assembly required for 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. Defects in NDUFV1 are a cause of Leigh syndrome (LS). LS is a severe neurological disorder characterized by bilaterally symmetrical necrotic lesions in subcortical brain regions. Defects in NDUFV1 are a cause of mitochondrial complex I deficiency (MT-C1D). A disorder of the mitochondrial respiratory chain that causes a wide range of clinical disorders, from lethal neonatal disease to adult-onset neurodegenerative disorders. Phenotypes include macrocephaly with progressive leukodystrophy, non-specific encephalopathy, cardiomyopathy, myopathy, liver disease, Leigh syndrome, Leber hereditary optic neuropathy, and some forms of Parkinson disease. Belongs to the complex I 51 kDa subunit family. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Mitochondrial; EC 1.6.5.3; EC 1.6.99.3; Oxidoreductase; Energy Metabolism - oxidative phosphorylation Chromosomal Location of Human Ortholog: 11q13 Cellular Component: mitochondrial inner membrane; mitochondrial respiratory chain complex I Molecular Function: 4 iron, 4 sulfur cluster binding; FMN binding; NAD binding; NADH dehydrogenase activity Biological Process: aerobic respiration; mitochondrial electron transport, NADH to ubiquinone; mitochondrial respiratory chain complex I assembly Disease: Mitochondrial Complex I Deficiency
Research Articles on NDUFV1	**1.** The presented clinical courses of NDUFV1 and NDUFS1 mutation-based complex I deficiencies are characterized by leukoencephalopathy or early death and expand the already heterogeneous phenotypic spectrum.
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