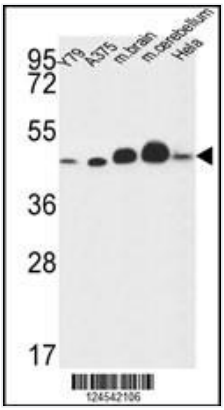
NDUFS2 Antibody – Rabbit Polyclonal

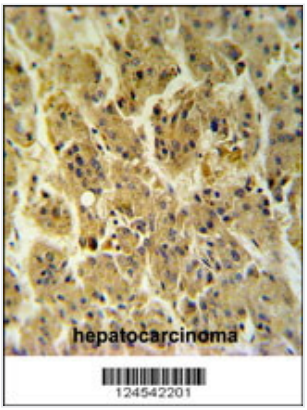
PRODUCT OVERVIEW

Product Name	NDUFS2, Polyclonal Antibody
Full Product Name	NDUFS2, ID (NDUFS2, NADH dehydrogenase [ubiquinone] iron-sulfur protein 2, mitochondrial, Complex I-49kD, NADH-ubiquinone oxidoreductase 49kD subunit) (FITC)
Product Gene Name	anti-NDUFS2 antibody
Product Synonym Names	NDUFS2; NADH dehydrogenase [ubiquinone] iron-sulfur protein 2, mitochondrial; Complex I-49kD; NADH-ubiquinone oxidoreductase 49kD subunit
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human, Mouse
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with Fluorescein Isothiocyanate (FITC).
Purity/Purification	Purified by Protein A Affinity Chromatography.
Preparation and Storage	Store product at 4 degree C if to be used immediately within two weeks. For long-term storage, aliquot to avoid repeated freezing and thawing and store at -20 degree C. Aliquots are stable at -20 degree C for 12 months after receipt. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: FITC conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap.
Molecular Weight	51,852 Da
OMIM	252010
3D Structure	ModBase 3D Structure for O75306
Immunogen	NDUFS2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 293~323 amino acids from the Central region of human NDUFS2.
Conjugate	FITC
Note	Preservative Free
Special Handling	Light sensitive
Product Categories/Family for anti-NDUFS2 antibody	Antibodies; Mitochondrial Proteins
Applications Tested/Suitable for anti-NDUFS2 antibody	Immunohistochemistry (IHC), FLISA, Western Blot (WB)
Application Notes for anti-NDUFS2 antibody	IHC: 1:50-100 FLISA: 1:1,000 WB: 1:100-500 Applications are based on unconjugated antibody.
Related Product Information for anti-NDUFS2 antibody	NDUFS2 is a core subunit of the mitochondrial membrane respiratory chain NADH dehydrogenase (complex I). Mammalian mitochondrial complex I is composed of at least 43 different subunits, 7 of which are encoded by the mitochondrial genome, and the rest are the products of nuclear genes. The iron-sulfur protein fraction of complex I is made up of 7 subunits, including this gene product. Complex I catalyzes the NADH oxidation with concomitant ubiquinone reduction and proton ejection out of the mitochondria.

Product References and Citations for anti-NDUFS2 antibody	Saada, A., et al. Am. J. Hum. Genet. 84(6):718-727(2009). Wang, L., et al. Cancer Epidemiol. Biomarkers Prev. 17(12):3558-3566(2008). Starr, J.M., et al. Mech. Ageing Dev. 129(12):745-751(2008). Ban, M., et al. PLoS ONE 3 (8), E2891 (2008). Triepels, R.H., et al. J. Biol. Chem. 276(12):8892-8897(2001).
Other Notes	Small volumes of anti-NDUFS2 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.
Searchable Terms for NDUFS2 purchase	MBS6324433 is an antibody targeting NDUFS2. Also known as NDUFS2, ID (NDUFS2, NADH dehydrogenase [ubiquinone] iron-sulfur protein 2, mitochondrial, Complex I-49kD, NADH-ubiquinone oxidoreductase 49kD subunit) (FITC). Reactive in Human, Mouse. Host: Rabbit.



Western Blot (WB) of anti-NDUFS2 antibody
NDUFS2 Antibody (Center) western blot analysis in Y79,A375,Hela cell line and mouse brain,cerebellum tissue lysates (35ug/lane).This demonstrates the NDUFS2 antibody detected the NDUFS2 protein (arrow).



Immunohistochemistry (IHC) of anti-NDUFS2 antibody
NDUFS2 Antibody (Center) IHC analysis in formalin fixed and paraffin embedded hepatocarcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the NDUFS2 Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for NDUFS2. It may not necessarily be applicable to this product.

NCBI GI #	260898743
NCBI GeneID	4720
NCBI Accession #	NP_001159631.1
UniProt Primary Accession #	O75306
UniProt Secondary Accession #	Q5VTW0; Q969P3; Q9UEV3; D3DVG7; J3KPM7
UniProt Related Accession #	O75306
GenBank Nucleotide #	NM_001166159.1
NCBI Official Full Name	NADH dehydrogenase
NCBI Official Synonym Full Names	NADH dehydrogenase (ubiquinone) Fe-S protein 2, 49kDa (NADH-coenzyme Q reductase)
NCBI Official Symbol	NDUFS2
NCBI Official Synonym Symbols	CI-49
UniProt Protein Name	NADH dehydrogenase [ubiquinone] iron-sulfur protein 2, mitochondrial
UniProt Synonym Protein Names	Complex I-49kD; CI-49kD; NADH-ubiquinone oxidoreductase 49 kDa subunit
UniProt Gene Name	NDUFS2
UniProt Synonym Gene Names	CI-49kD
UniProt Entry Name	NDUS2_HUMAN

NCBI Protein Information	NADH dehydrogenase [ubiquinone] iron-sulfur protein 2, mitochondrial; NADH dehydrogenase [ubiquinone] iron-sulfur protein 2, mitochondrial; CI-49kD; NADH-ubiquinone oxidoreductase 49 kDa subunit; NADH-ubiquinone oxidoreductase NDUFS2 subunit; complex 1, m
NCBI Summary for NDUFS2	The protein encoded by this gene is a core subunit of the mitochondrial membrane respiratory chain NADH dehydrogenase (complex I). Mammalian mitochondrial complex I is composed of at least 43 different subunits, 7 of which are encoded by the mitochondrial genome, and the rest are the products of nuclear genes. The iron-sulfur protein fraction of complex I is made up of 7 subunits, including this gene product. Complex I catalyzes the NADH oxidation with concomitant ubiquinone reduction and proton ejection out of the mitochondria. Mutations in this gene are associated with mitochondrial complex I deficiency. Alternatively spliced transcript variants encoding different isoforms have been found for this gene.[provided by RefSeq, Oct 2009]
UniProt Comments for NDUFS2	NDUFS2: 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 NDUFS2 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 49 kDa subunit family. Protein type: Mitochondrial; EC 1.6.5.3; Energy Metabolism - oxidative phosphorylation; Oxidoreductase; EC 1.6.99.3 Chromosomal Location of Human Ortholog: 1q23 Cellular Component: nucleoplasm; mitochondrion; mitochondrial inner membrane; mitochondrial respiratory chain complex I Molecular Function: protein binding; electron carrier activity; NADH dehydrogenase (ubiquinone) activity; metal ion binding; 4 iron, 4 sulfur cluster binding; NAD binding; quinone binding; NADH dehydrogenase activity Biological Process: cellular metabolic process; mitochondrial electron transport, NADH to ubiquinone; response to oxidative stress Disease: Mitochondrial Complex I Deficiency
Research Articles on NDUFS2	**1.** NDUFAF7 methylates arginine 85 in the NDUFS2 subunit of human complex I.
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