NDUFS1 Peptide - Middle Region Blocking Peptide

PRODUCT OVERVIEW

Product Name	NDUFS1, Blocking Peptide
Full Product Name	NDUFS1 Peptide - middle region
Product Gene Name	NDUFS1 blocking peptide
Product Synonym Gene Name	CI-75Kd; MGC26839; PRO1304; CI-75k
Sequence	TPPGLAREDW KIIRALSEIA GMTLPYDTLD QVRNRLEEVS PNLVRYDDIE
Species Reactivity	Human
Form/Format	Lyophilized powder
Preparation and Storage	Add 100ul of sterile PBS. Final peptide concentration is 1 mg/ml in PBS. For longer periods of storage, store at -20 degree C. Avoid repeat freeze-thaw cycles.
Antibody/Peptide Pairs	NDUFS1 peptide (MBS3237822) is used for blocking the activity of NDUFS1 antibody (MBS3212877)
Molecular Weight	77kDa
OMIM	157655
Product Categories/Family for NDUFS1 blocking peptide	Peptide
Applications Tested/Suitable for NDUFS1 blocking peptide	Western Blot (WB)
Related Product Information for NDUFS1 blocking peptide	This is a synthetic peptide designed for use in combination with anti-NDUFS1 Antibody, made Target Description: The protein encoded by this gene belongs to the complex I 75 kDa subunit family. Mammalian complex I is composed of 45 different subunits. It locates at the mitochondrial inner membrane. This protein has NADH dehydrogenase activity and oxidoreductase activity. It transfers electrons from NADH to the respiratory chain. The immediate electron acceptor for the enzyme is believed to be ubiquinone. This protein is the largest subunit of complex I and it is a component of the iron-sulfur (IP) fragment of the enzyme. It may form part of the active site crevice where NADH is oxidized. Mutations in this gene are associated with complex I deficiency.
Other Notes	Small volumes of NDUFS1 blocking peptide 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 NDUFS1 purchase	MBS3237822 is a blocking peptide targeting NDUFS1. Also known as NDUFS1 Peptide - middle region. Reactive in Human.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for NDUFS1. It may not necessarily be applicable to this product.

NCBI GI #	33519475
NCBI GeneID	4719
NCBI Accession #	NP_004997
UniProt Primary Accession #	P28331
UniProt Related Accession #	P28331

GenBank Nucleotide #	NM_005006
NCBI Official Full Name	NADH-ubiquinone oxidoreductase 75 kDa subunit, mitochondrial isoform 1
NCBI Official Synonym Full Names	NADH:ubiquinone oxidoreductase core subunit S1
NCBI Official Symbol	NDUFS1
NCBI Official Synonym Symbols	CI-75k; MC1DN5; CI-75Kd; PRO1304
UniProt Protein Name	NADH-ubiquinone oxidoreductase 75 kDa subunit, mitochondrial
UniProt Synonym Protein Names	Complex I-75kD
UniProt Gene Name	NDUFS1
UniProt Synonym Gene Names	CI-75kD
UniProt Entry Name	NDUS1_HUMAN
NCBI Protein Information	NADH-ubiquinone oxidoreductase 75 kDa subunit, mitochondrial
NCBI Summary for NDUFS1	The protein encoded by this gene belongs to the complex I 75 kDa subunit family. Mammalian complex I is composed of 45 different subunits. It locates at the mitochondrial inner membrane. This protein has NADH dehydrogenase activity and oxidoreductase activity. It transfers electrons from NADH to the respiratory chain. The immediate electron acceptor for the enzyme is believed to be ubiquinone. This protein is the largest subunit of complex I and it is a component of the iron-sulfur (IP) fragment of the enzyme. It may form part of the active site crevice where NADH is oxidized. Mutations in this gene are associated with complex I deficiency. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jan 2011]
UniProt Comments for NDUFS1	NDUFS1: 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. This is the largest subunit of complex I and it is a component of the iron-sulfur (IP) fragment of the enzyme. It may form part of the active site crevice where NADH is oxidized. Defects in NDUFS1 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 75 kDa subunit family. 4 isoforms of the human protein are produced by alternative splicing. Protein type: Oxidoreductase; Energy Metabolism - oxidative phosphorylation; EC 1.6.5.3; Mitochondrial; EC 1.6.99.3 Chromosomal Location of Human Ortholog: 2q33-q34 Cellular Component: mitochondrion; mitochondrial inner membrane; mitochondrial intermembrane space; mitochondrial respiratory chain complex I Molecular Function: 2 iron, 2 sulfur cluster binding; protein binding; electron carrier activity; NADH dehydrogenase (ubiquinone) activity; 4 iron, 4 sulfur cluster binding; metal ion binding Biological Process: ATP metabolic process; cellular metabolic process; apoptotic mitochondrial changes; mitochondrial electron transport, NADH to ubiquinone; regulation of mitochondrial membrane potential; cellular respiration Disease: Mitochondrial Complex I Deficiency
Research Articles on NDUFS1	**1.** Results show that NDUFS1 protein and mRNA levels are down-regulated in lung neoplasm and correlate with poor overall survival.
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