

# NDUFS1 Rabbit pAb

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Catalog # AP58106

## Product Information

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<b>Application</b>	IHC-P, IHC-F, IF
<b>Primary Accession</b>	<a href="#">P28331</a>
<b>Reactivity</b>	Human, Rat
<b>Predicted</b>	Mouse, Dog, Pig, Rabbit
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Calculated MW</b>	79468
<b>Physical State</b>	Liquid
<b>Immunogen</b>	KLH conjugated synthetic peptide derived from human Ndufs1
<b>Epitope Specificity</b>	51-150/727
<b>Isotype</b>	IgG
<b>Purity</b>	affinity purified by Protein A
<b>Buffer</b>	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
<b>SUBCELLULAR LOCATION</b>	Mitochondrion inner membrane.
<b>SIMILARITY</b>	Defects in NDUFS1 are a cause of mitochondrial complex I deficiency (MT-C1D) [MIM:252010]. 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.
<b>Important Note</b>	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
<b>Background Descriptions</b>	Ndufs1 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. Ndufs1 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 Ndufs1 gene are associated with complex I deficiency.

## Additional Information

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<b>Gene ID</b>	4719
<b>Other Names</b>	NADH-ubiquinone oxidoreductase 75 kDa subunit, mitochondrial, 7.1.1.2, Complex I-75kD, CI-75kD, NDUFS1
<b>Dilution</b>	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500

<b>Storage</b>	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
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## Protein Information

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<b>Name</b>	NDUFS1
<b>Function</b>	Core subunit of the mitochondrial membrane respiratory chain NADH dehydrogenase (Complex I) which catalyzes electron transfer from NADH through the respiratory chain, using ubiquinone as an electron acceptor (PubMed: <a href="#">30879903</a> , PubMed: <a href="#">31557978</a> ). Essential for catalysing the entry and efficient transfer of electrons within complex I (PubMed: <a href="#">31557978</a> ). Plays a key role in the assembly and stability of complex I and participates in the association of complex I with ubiquinol-cytochrome reductase complex (Complex III) to form supercomplexes (PubMed: <a href="#">30879903</a> , PubMed: <a href="#">31557978</a> ).
<b>Cellular Location</b>	Mitochondrion inner membrane; Peripheral membrane protein {ECO:0000250 UniProtKB:P15690}; Matrix side {ECO:0000250 UniProtKB:P15690}

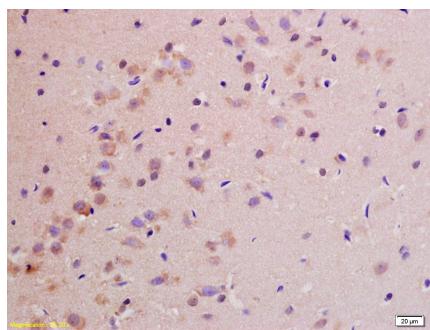
## Background

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Ndufs1 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. Ndufs1 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 Ndufs1 gene are associated with complex I deficiency.

## Images

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Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;  
 Antigen retrieval: citrate buffer ( 0.01M, pH 6.0 ), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;  
 Incubation: Anti-NDUFS1/NADH dehydrogenase (ubiquinone) FeS protein 1(75kD) Polyclonal Antibody, Unconjugated(AP58106) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.