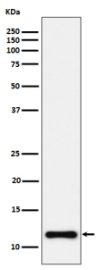
NDUFC2 Antibody / NADH dehydrogenase ubiquinone 1 subunit C2 [clone 30N46] (FY12111)

Catalog No.	Formulation	Size
FY12111	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA	100 ul

Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	2-3 weeks
Species Reactivity	Human
Format	Liquid
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	30N46
Purity	Affinity-chromatography
Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
UniProt	O95298
Applications	Western Blot : 1:500-1:2000 Immunohistochemistry : 1:50-1:200
Limitations	This NDUFC2 antibody is available for research use only.



Western blot analysis of NDUFC2 expression in HeLa cell lysate using NDUFC2 antibody.

Description

NDUFC2 antibody detects NADH dehydrogenase [ubiquinone] 1 subunit C2, a small accessory subunit of mitochondrial complex I. Complex I is the largest enzyme of the respiratory chain, catalyzing electron transfer from NADH to ubiquinone while pumping protons across the inner mitochondrial membrane to generate an electrochemical gradient for ATP

synthesis. NDUFC2 is an integral membrane component that helps stabilize the overall complex I structure.

Research using NDUFC2 antibody has demonstrated the protein's role in mitochondrial function and human disease. Alterations in NDUFC2 expression affect assembly and stability of complex I, contributing to mitochondrial disorders characterized by impaired oxidative phosphorylation. Complex I deficiencies are associated with neurodegenerative diseases such as Parkinson's disease and Leigh syndrome, as well as metabolic syndromes involving muscle weakness and lactic acidosis.

Emerging studies also suggest that NDUFC2 is involved in cellular stress responses and aging. Reduced activity of complex I, driven in part by impaired NDUFC2 function, has been linked to oxidative stress, reactive oxygen species accumulation, and mitochondrial DNA damage. These changes contribute to progressive decline in cellular energy production with age. In cardiovascular research, NDUFC2 expression has been connected to vascular health, since endothelial energy metabolism depends heavily on intact mitochondrial function.

Antibodies against NDUFC2 are validated for applications such as western blot, immunofluorescence, and immunohistochemistry. These reagents enable researchers to monitor NDUFC2 protein levels, mitochondrial localization, and complex I integrity. Clone-based antibodies provide reproducibility across experiments, supporting investigations in mitochondrial biology and disease pathology.

NSJ Bioreagents provides this NDUFC2 antibody for research on oxidative phosphorylation, neurodegeneration, and mitochondrial disorders.

Application Notes

Optimal dilution of the NDUFC2 antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human NDUFC2 was used as the immunogen for the NDUFC2 antibody.

Storage

Store the NDUFC2 antibody at -20oC.