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NDUFS2 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9769c

Product Information

Application	IHC-P, WB, E
Primary Accession	O75306
Other Accession	Q641Y2, Q91WD5, P17694
Reactivity	Human, Rat, Mouse
Predicted	Bovine, Rat, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB24542
Calculated MW	52546
Antigen Region	286-315

Additional Information

Gene ID	4720
Other Names	NADH dehydrogenase [ubiquinone] iron-sulfur protein 2, mitochondrial, Complex I-49kD, CI-49kD, NADH-ubiquinone oxidoreductase 49 kDa subunit, NDUFS2
Target/Specificity	This NDUFS2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 286-315 amino acids from the Central region of human NDUFS2.
Dilution	IHC-P~~1:100~500 WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	NDUFS2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	NDUFS2
Function	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:22036843, PubMed:28031252, PubMed:30922174). Essential for the catalytic activity of complex I (PubMed:22036843, PubMed:30922174). Essential for the assembly of complex I (By similarity). Redox-sensitive, critical component of the oxygen-sensing pathway in the pulmonary vasculature which plays a key role in acute pulmonary oxygen-sensing and hypoxic pulmonary vasoconstriction (PubMed:30922174). Plays an important role in carotid body sensing of hypoxia (By similarity). Essential for glia-like neural stem and progenitor cell proliferation, differentiation and subsequent oligodendrocyte or neuronal maturation (By similarity).

Cellular Location Mitochondrion inner membrane; Peripheral membrane protein {ECO:0000250|UniProtKB:Q641Y2}; Matrix side {ECO:0000250|UniProtKB:Q641Y2}

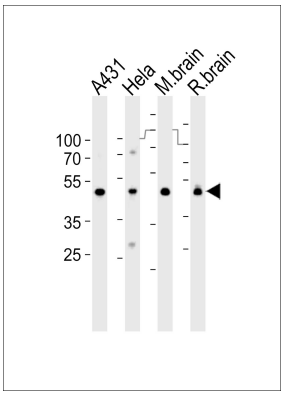
Background

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.

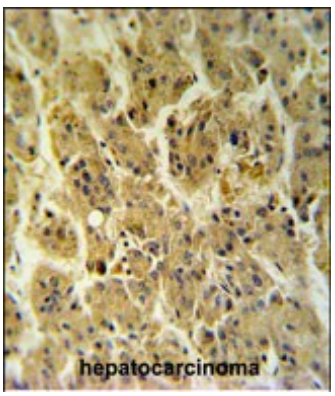
References

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)

Images



Western blot analysis of lysates from A431, Hela cell line, mouse brain and rat brain tissue lysate(from left to right), using NDUFS2 Antibody (Center)(Cat. #AP9769c). AP9769c was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysates at 35ug per lane.



NDUFS2 Antibody (Center) (Cat. #AP9769c) 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.

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