abcam

Product datasheet

Anti-NADH dehydrogenase subunit 4 antibody [9E4-2D8] - N-terminal ab219822

1 Image

Overview

Product name	Anti-NADH dehydrogenase subunit 4 antibody [9E4-2D8] - N-terminal
Description	Mouse monoclonal [9E4-2D8] to NADH dehydrogenase subunit 4 - N-terminal
Host species	Mouse
Tested applications	**Suitable for:** WB
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide corresponding to Human NADH dehydrogenase subunit 4 (N terminal). Database link: P03905
Positive control	WB: Mitochondria from cultured normal control human dermal fibroblasts neonatal (HDFn).

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.20 Preservative: 0.02% Sodium azide Constituents: 0.36% HEPES, 0.87% Sodium chloride
Purity	Protein L purified
Purification notes	Purified from hybridoma cell culture supernatant by Protein L affinity chromatography from fetal bovine serum containing medium (Protein L does not bind bovine IgG).
Clonality	Monoclonal
Clone number	9E4-2D8
Isotype	IgG2a
Light chain type	kappa

Applications

Our Abpromise guarantee covers the use of **ab219822** in the following tested applications.

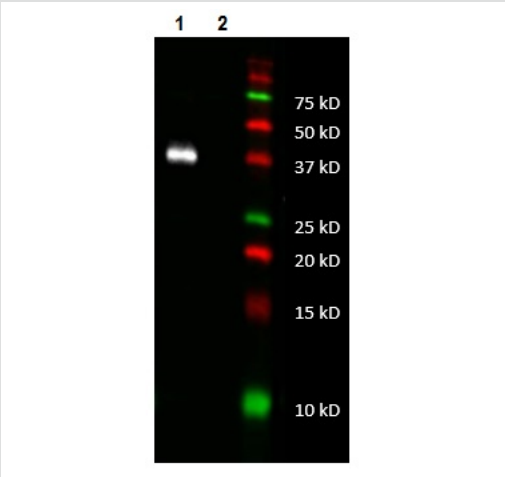
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use a concentration of 4 µg/ml. Detects a band of approximately 37 kDa (predicted molecular weight: 52 kDa). Western blot using whole cell extracts is not recommended.

Target

Function	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.
Involvement in disease	Defects in MT-ND4 are a cause of Leber hereditary optic neuropathy (LHON) [MIM:535000]. LHON is a maternally inherited disease resulting in acute or subacute loss of central vision, due to optic nerve dysfunction. Cardiac conduction defects and neurological defects have also been described in some patients. LHON results from primary mitochondrial DNA mutations affecting the respiratory chain complexes. Defects in MT-ND4 are a cause of Leber hereditary optic neuropathy with dystonia (LDYT) [MIM:500001]; also called familial dystonia with visual failure and striatal lucencies. LDYT is part of a spectrum of Leber hereditary optic neuropathy. It is characterized by the association of optic atrophy and central vision loss with dystonia. Defects in MT-ND4 are a cause of mitochondrial encephalomyopathy with lactic acidosis and stroke-like episodes syndrome (MELAS) [MIM:540000]. MELAS is a genetically heterogenious disorder, characterized by episodic vomiting, seizures, and recurrent cerebral insults resembling strokes and causing hemiparesis, hemianopsia, or cortical blindness.
Sequence similarities	Belongs to the complex I subunit 4 family.
Cellular localization	Mitochondrion membrane.

Images



Western blot - Anti-NADH dehydrogenase subunit 4 antibody [9E4-2D8] (ab219822)

All lanes : Anti-NADH dehydrogenase subunit 4 antibody [9E4-2D8] - N-terminal (ab219822) at 4 µg/ml

Lane 1 : Mitochondria from cultured normal control human dermal fibroblasts neonatal (HDFn)
Lane 2 : Mitochondria from HDFn cells depleted of mtDNA by long-term proliferation in the presence of ethidium bromide

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : HRP-labeled Goat-anti-mouse IgG

Developed using the ECL technique.

Predicted band size: 52 kDa
Observed band size: 37 kDa

Mitochondrial proteins solubilized in 2% SDS were separated by SDS-PAGE and then transferred to PVDF membranes in CAPS buffer.

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