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Product datasheet

Anti-MT-ND1 antibody ab233289

1 References 4 Images

Overview

Product name	Anti-MT-ND1 antibody
Description	Rabbit polyclonal to MT-ND1
Host species	Rabbit
Tested applications	**Suitable for:** IHC-P, WB
Species reactivity	**Reacts with:** Human, Pig
Immunogen	Recombinant fragment corresponding to Human MT-ND1 aa 150-300. Two N-terminal tags, His-tag and GST-tag. Expressed in E.coli. Database link: **P03886** Run BLAST with Run BLAST with
Positive control	IHC-P: Human liver tissue. WB: Recombinant human MT-ND1 protein; Pig liver tissue lysate.
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

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: 7.40 Preservative: 0.011% Proclin 300 Constituents: 55.77% Glycerol (glycerin, glycerine), 44.219% PBS
Purity	Protein A purified
Purification notes	Antigen-specific affinity chromatography followed by Protein A affinity chromatography.
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab233289 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
IHC-P		Use a concentration of 5 - 20 µg/ml.
WB		Use a concentration of 0.2 - 2 µg/ml.

Target

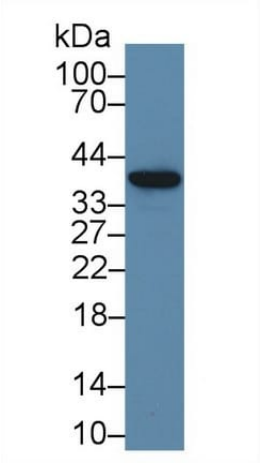
Function Core subunit of the mitochondrial membrane respiratory chain NADH dehydrogenase (Complex I) that is believed to belong to the minimal assembly required for catalysis. Complex I functions in the transfer of electrons from NADH to the respiratory chain. The immediate electron acceptor for the enzyme is believed to be ubiquinone.

Involvement in disease Defects in MT-ND1 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-ND1 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.
Defects in MT-ND1 may be associated with susceptibility to Alzheimer disease mitochondrial (AD-MT) [MIM:502500]. Alzheimer disease is a neurodegenerative disorder characterized by progressive dementia, loss of cognitive abilities, and deposition of fibrillar amyloid proteins as intraneuronal neurofibrillary tangles, extracellular amyloid plaques and vascular amyloid deposits. The major constituent of these plaques is the neurotoxic amyloid-beta-APP 40-42 peptide (s), derived proteolytically from the transmembrane precursor protein APP by sequential secretase processing. The cytotoxic C-terminal fragments (CTFs) and the caspase-cleaved products such as C31 derived from APP, are also implicated in neuronal death.
Defects in MT-ND1 may be associated with non-insulin-dependent diabetes mellitus (NIDDM).

Sequence similarities Belongs to the complex I subunit 1 family.

Cellular localization Mitochondrion inner membrane.

Images

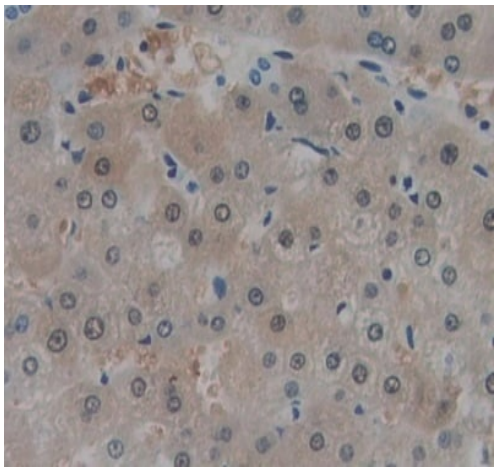


Western blot - Anti-MT-ND1 antibody (ab233289)

Anti-MT-ND1 antibody (ab233289) at 3 µg/ml + Pig liver tissue lysate

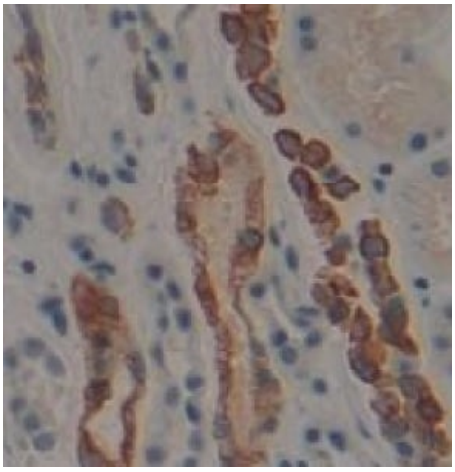
Secondary

HRP-Linked Goat anti-Rabbit IgG polyclonal at 0.2 µg/ml



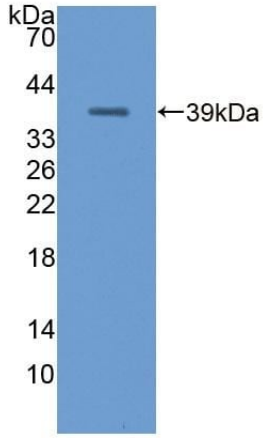
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MT-ND1 antibody (ab233289)

Formalin-fixed, paraffin-embedded human liver tissue stained for MT-ND1 using ab233289 at 10 µg/mL in immunohistochemical analysis. DAB staining.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MT-ND1 antibody (ab233289)

Formalin-fixed, paraffin-embedded human kidney tissue stained for MT-ND1 using ab233289 at 20 µg/mL in immunohistochemical analysis. DAB staining.



Western blot - Anti-MT-ND1 antibody (ab233289)

Anti-MT-ND1 antibody (ab233289) at 2 µg/ml + Recombinant human MT-ND1 protein

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