SunLong Biotech Co.,LTD
Tel: 0086-571-56623320 Fax:0086-571-56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com

[Marker Primary Antibody]

Rabbit Anti-MT-ND1/HRP Conjugated antibody

Catalog Number: SL3685R-HRP

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	Anti-MT-ND1/HRP
Immunogen:	KLH conjugated synthetic peptide derived from human MT-ND1
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Applications:	WB=1:500-2000 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Rat(predicted:Human,Mouse)
Background:	background: MT-ND1 is the 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. Defects in MT-ND1 are a cause of Leber hereditary optic neuropathy (LHON) [MIM:535000]; also known as Leber optic atrophy. LHON is a maternally inherited disease resulting in acute bilateral blindness due to retinal degeneration predominantly in young men. Cardiac conduction defects and neurological defects have also been described, resulting in optic nerve degeneration and cardiac dysrhythmia. Defects in MT-ND1 may also be associated with mitochondrial susceptibility to Alzheimer disease (AD) and non insulin dependent diabetes mellitus (NIDDM). **Function:** Core subunit of the mitochondrial membrane respiratory chain NADH dehydrogenase (Complex I) that is believed to belong to the minimal

Important Note: This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

	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 **Subcellular Location:** Mitochondrion inner membrane; Multi-pass membrane protein 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. Note=Genetic variation in MT-ND1 might contribute ot the pathogenesis of non-insulin-dependent diabetes mellitus (NIDDM). **Similarity:** Belongs to the complex I subunit 1 family. **Database links:** **Entrez Gene:** 4535 Human **Entrez Gene:** 17716 Mouse **Entrez Gene:** 26193 Rat **SwissProt:** P03886 Human **SwissProt:** P03888 Mouse **SwissProt:** P03889 Rat Important **Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.