

Store at
-20C
#45859**MT-ND3 Antibody**

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H	Endogenous	13	Rabbit	#P03897	4537

Product Usage Information**Application**

Western Blotting

Dilution

1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. *Do not aliquot the antibody.*

Specificity/Sensitivity

MT-ND3 Antibody recognizes endogenous levels of total MT-ND3 protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human MT-ND3 protein. Antibodies are purified by peptide affinity chromatography.

Background

Mitochondrially encoded NADH dehydrogenase 3 (MT-ND3) is encoded by the mitochondrial gene *MT-ND3* and is a core subunit of the mitochondrial membrane respiratory chain NADH dehydrogenase (Complex I). Located in the mitochondrial inner membrane, Complex I is the largest of the five respiratory complexes and catalyzes electron transfer from NADH to ubiquinone. The mitochondrially encoded subunits of Complex I, including MT-ND3, are the most hydrophobic subunits and form the core of the transmembrane region (1,2). Pathogenic variants of the *MT-ND3* gene are known to cause mitochondrial complex I deficiency (MT-C1D) and may lead to a wide range of clinical disorders, including Leigh syndrome, Leber hereditary optic neuropathy, and encephalopathy (3-5).

Background References

1. Weiss, H. et al. (1991) *Eur J Biochem* 197, 563-76.
2. Mimaki, M. et al. (2012) *Biochim Biophys Acta* 1817, 851-62.
3. Sarzi, E. et al. (2007) *Am J Med Genet A* 143A, 33-41.
4. La Morgia, C. et al. (2014) *BMC Neurol* 14, 116.
5. McFarland, R. et al. (2004) *Ann Neurol* 55, 58-64.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween@ 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human

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