

Anti-NADH2/Mtnd2 Antibody Picoband®

Catalog Number: A32839-1

About Mtnd2

Mitochondrially encoded NADH dehydrogenase 2 is protein that in humans is encoded by the mitochondrial gene MT-ND2 gene. The ND2 protein is a subunit of NADH dehydrogenase (ubiquinone), which is located in the mitochondrial inner membrane and is the largest of the five complexes of the electron transport chain. Variants of MT-ND2 are associated with mitochondrial encephalomyopathy, lactic acidosis, and stroke-like episodes (MELAS), Leigh's syndrome (LS), Leber's hereditary optic neuropathy (LHON) and increases in adult BMI.

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Overview

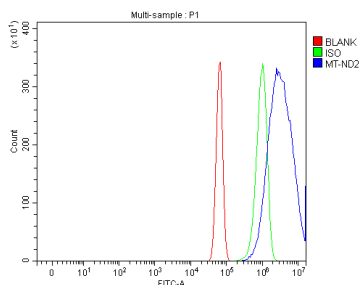
Product Name	Anti-NADH2/Mtnd2 Antibody Picoband®
Reactive Species	Mouse, Rat
Description	Boster Bio Anti-NADH2/Mtnd2 Antibody Picoband® catalog # A32839-1. Tested in Flow Cytometry, WB applications. This antibody reacts with Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	Flow Cytometry, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P11662

Technical Details

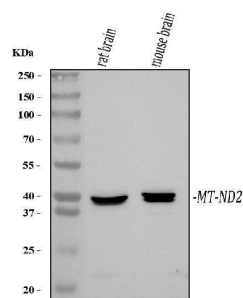
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of rat NADH2/Mtnd2, which shares 80% amino acid (aa) sequence identity with mouse NADH2/Mtnd2.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western

	blot.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5ug/ml, Mouse, Rat Flow Cytometry (Fixed), 1-3ug/1x10⁶ cells, Rat Note: For flow cytometry (FCM), validated for fixed cells only. Not validated for FACS or surface flow cytometry using live cells.

Anti-NADH2/Mtnd2 Antibody Picoband® (A32839-1) Images



Flow Cytometry analysis of RH35 cells using anti-NADH2/Mtnd2 antibody (A32839-1). Overlay histogram showing RH35 cells stained with A32839-1 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-NADH2/Mtnd2 Antibody (A32839-1, 1 ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10⁶) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



Western blot analysis of NADH2/Mtnd2 using anti-NADH2/Mtnd2 antibody (A32839-1). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: rat brain tissue lysates, Lane 2: mouse brain tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-NADH2/Mtnd2 antigen affinity purified polyclonal antibody (Catalog # A32839-1) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for NADH2/Mtnd2 at approximately 39 kDa. The expected band size for NADH2/Mtnd2 is at 39 kDa.

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For Research Use Only. Not for use in diagnostic procedures.