

Anti-NFU1 Antibody Picoband®

Catalog Number: A06191-1

About NFU1

This gene encodes a protein that is localized to mitochondria and plays a critical role in iron-sulfur cluster biogenesis. The encoded protein assembles and transfers 4Fe-4S clusters to target apoproteins including succinate dehydrogenase and lipoic acid synthase. Mutations in this gene are a cause of multiple mitochondrial dysfunctions syndrome-1, and pseudogenes of this gene are located on the short arms of chromosomes 1 and 3. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene.

Overview

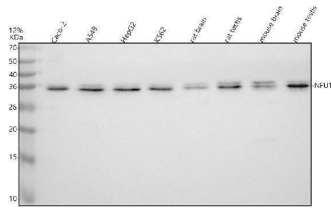
Product Name	Anti-NFU1 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-NFU1 Antibody Picoband® catalog # A06191-1. Tested in WB, ICC/IF, Flow Cytometry, ELISA applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody 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	ELISA, Flow Cytometry, IF, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
Storage Instructions	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 freezing and thawing.
Host	Rabbit
Uniprot ID	Q9UMS0

Technical Details

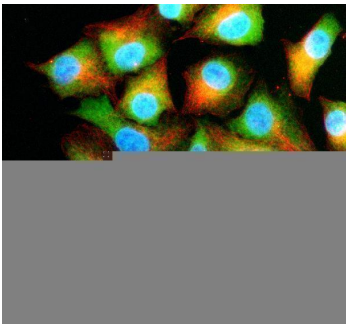
Immunogen	E.coli-derived human NFU1 recombinant protein (Position: Q42-P254). Human NFU1 shares 93% amino acid (aa) sequence identity with mouse NFU1.
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5 ug/ml, Human, Mouse, Rat Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human Flow Cytometry (Fixed), 1-3 ug/1x10 ⁶ cells, Human ELISA, 0.1-0.5 ug/ml



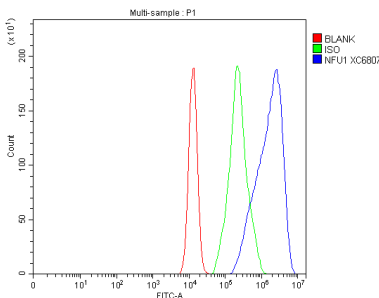
Anti-NFU1 Antibody Picoband® (A06191-1) Images



Western blot analysis of NFU1 using anti-NFU1 antibody (A06191-1). Electrophoresis was performed on a 12% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human Caco-2 whole cell lysates, Lane 2: human A549 whole cell lysates, Lane 3: human HepG2 whole cell lysates, Lane 4: human K562 whole cell lysates, Lane 5: rat brain tissue lysates, Lane 6: rat testis tissue lysates, Lane 7: mouse brain tissue lysates, Lane 8: mouse testis 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-NFU1 antigen affinity purified polyclonal antibody (A06191-1) 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 ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for NFU1 at approximately 28 kDa. The expected band size for NFU1 is at 28 kDa.



IF analysis of NFU1 using anti-NFU1 antibody (A06191-1) and anti-Beta Tubulin antibody (M01857-3). NFU1 was detected in an immunocytochemical section of A549 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-NFU1 Antibody (A06191-1) and mouse anti-Beta Tubulin antibody (M01857-3) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) and Cy3 Conjugated Goat Anti-Mouse IgG (BA1031) were used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Flow Cytometry analysis of A549 cells using anti-NFU1 antibody (A06191-1). Overlay histogram showing A549 cells stained with A06191-1 (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-NFU1 Antibody (A06191-1, 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.

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Anti-NFU1 Antibody

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