

Anti-NFS1 Antibody Picoband®

Catalog Number: A05061-1

About NFS1

Cysteine desulfurase, mitochondrial is an enzyme that in humans is encoded by the NFS1 gene. Iron-sulfur clusters are required for the function of many cellular enzymes. The proteins encoded by this gene supply inorganic sulfur to these clusters by removing the sulfur from cysteine, creating alanine in the process. This gene uses alternate in-frame translation initiation sites to generate mitochondrial forms and cytoplasmic/nuclear forms. Selection of the alternative initiation sites is determined by the cytosolic pH. The encoded proteins belong to the class-V family of pyridoxal phosphate-dependent aminotransferases. Alternatively spliced transcript variants have been described.

Overview

Product Name	Anti-NFS1 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-NFS1 Antibody Picoband® catalog # A05061-1. Tested in WB, IP, 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, IP, 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	Q9Y697

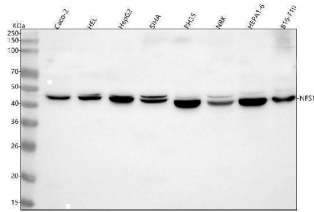
Technical Details

Immunogen	E.coli-derived human NFS1 recombinant protein (Position: R107-L356). Human NFS1 shares 96.4% and 96% amino acid (aa) sequence identity with mouse and rat NFS1, respectively.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 µg/ml.
Purification	Immunogen affinity purified.

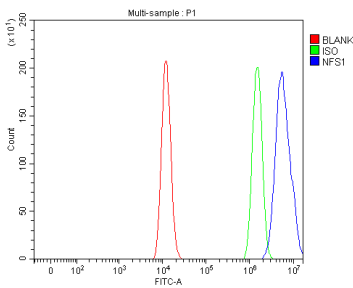
Suggested Dilutions

Western blot, 0.25-0.5 ug/ml, Human, Mouse, Rat
Immunoprecipitation, 0.5-2 ug/ml, Human
Flow Cytometry (Fixed), 1-3 ug/ 1×10^6 cells, Human
ELISA, 0.1-0.5 ug/ml, -

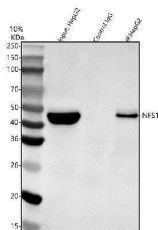
Anti-NFS1 Antibody Picoband® (A05061-1) Images



Western blot analysis of NFS1 using anti-NFS1 antibody (A05061-1). 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: human Caco-2 whole cell lysates, Lane 2: human HEL whole cell lysates, Lane 3: human HepG2 whole cell lysates, Lane 4: human SIHA whole cell lysates, Lane 5: rat RH35 whole cell lysates, Lane 6: rat NRK whole cell lysates, Lane 7: mouse HEPA1-6 whole cell lysates, Lane 8: mouse B16-F10 whole cell 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-NFS1 antigen affinity purified polyclonal antibody (Catalog # A05061-1) 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 NFS1 at approximately 45 kDa. The expected band size for NFS1 is at 50 kDa.



Flow Cytometry analysis of HEL cells using anti-NFS1 antibody (A05061-1). Overlay histogram showing HEL cells stained with A05061-1 (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-NFS1 Antibody (A05061-1, 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 (Red line) was also used as a control.



Immunoprecipitating NFS1 in HepG2 whole cell lysate. Western blot analysis of NFS1 using anti-NFS1 antibody (A05061-1); Lane 1: HepG2 whole cell lysates (30ug); Lane 2: Rabbit control IgG instead of anti-NFS1 antibody in HepG2 whole cell lysate; Lane 3: anti-NFS1 antibody (2ug) + HepG2 whole cell lysate (500ug). After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-NFS1 antigen affinity purified polyclonal antibody (A05061-1) at a dilution of 0.5 ug/mL and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1196-200). A specific band was detected for NFS1 at approximately 45 kDa. The expected band size for NFS1 is at 50 kDa.

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Anti-NFS1 Antibody

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