BOSTER
antibody and ELISA experts

BOSTER BIOLOGICAL TECHNOLOGY
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Anti-Optineurin/OPTN Antibody Picoband™ (monoclonal, 3D8)

Catalog Number: M00952

About OPTN

OPTN is also known as NRP, FIP2 or HYPL. This gene encodes the coiled-coil containing protein optineurin. Optineurin may play a role in normal-tension glaucoma and adult-onset primary open angle glaucoma. Optineurin interacts with adenovirus E3-14.7K protein and may utilize tumor necrosis factor-alpha or Fas-ligand pathways to mediate apoptosis, inflammation or vasoconstriction. Optineurin may also function in cellular morphogenesis and membrane trafficking, vesicle trafficking, and transcription activation through its interactions with the RAB8, huntingtin, and transcription factor IIIA proteins. Alternative splicing results in multiple transcript variants encoding the same protein.

Overview

Product Name	Anti-Optineurin/OPTN Antibody Picoband™ (monoclonal, 3D8)
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Optineurin/OPTN Antibody Picoband™ (monoclonal, 3D8) catalog # M00952. Tested in Flow Cytometry, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	Flow Cytometry, WB
Clonality	Monoclonal 3D8
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
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	Mouse
Uniprot ID	Q96CV9

Technical Details

Immunogen	E.coli-derived human Optineurin recombinant protein (Position: R241-I577). Human Optineurin shares 82% amino acid (aa) sequence identity with both mouse and rat Optineurin.
Predicted Reactive Species	Hepatitis Virus
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Mouse IgG (EK1001) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Mouse IgG2b
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.

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Purification	Immunogen affinity purified.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Western blot, 0.1-0.5ug/ml Flow Cytometry, 1-3ug/1x10^6 cells

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Anti-Optineurin/OPTN Antibody Picoband™ (monoclonal, 3D8) (M00952) Images

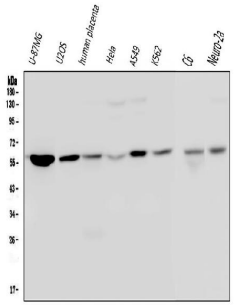

Figure 1. Western blot analysis of Optineurin/OPTN using anti-Optineurin/OPTN antibody (M00952).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.
Lane 1: human U-87MG whole cell lysates;
Lane 2: human U20S whole cell lysates;
Lane 3: human placenta tissue lysates;
Lane 4: human Hela whole cell lysates;
Lane 5: human A549 whole cell lysates;
Lane 6: human K562 whole cell lysates;
Lane 7: rat C6 whole cell lysates;
Lane 8: mouse Neuro-2a whole cell lysates.
After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-Optineurin/OPTN antigen affinity purified monoclonal antibody (Catalog # M00952) 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-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001) with Tanon 5200 system. A specific band was detected for Optineurin/OPTN at approximately 66KD. The expected band size for Optineurin/OPTN is at 66KD.

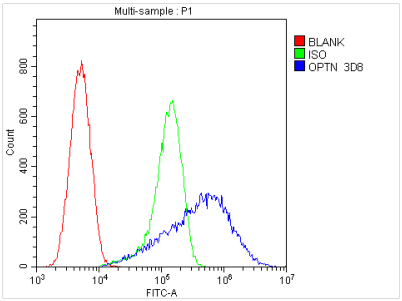

Figure 2. Flow Cytometry analysis of U20S cells using anti-Optineurin/OPTN antibody (M00952).
Overlay histogram showing U20S cells stained with M00952 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-Optineurin/OPTN Antibody (M00952, 1ug/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10ug/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1ug/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.