BOSTER BIOLOGICAL TECHNOLOGY
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Anti-p95 NBS1 Antibody Picoband® (monoclonal, 5D7A1)

Catalog Number: M00732-1

About NBN

p95 NBS1, also known as NBN or Nibrin, is a protein which in humans is encoded by the NBN gene. Nibrin is a protein associated with the repair of double strand breaks (DSBs) which pose serious damage to a genome. It is a 754 amino acid protein identified as a member of the NBS1/hMre11/RAD50(N/M/R, more commonly referred to asMRN) double strand DNA break repair complex. This complex recognizes DNA damage and rapidly relocates to DSB sites and forms nuclear foci. It also has a role in regulation of N/M/R (MRN) protein complex activity which includes end-processing of both physiological and mutagenic DNA double strand breaks (DSBs).

Overview

Product Name	Anti-p95 NBS1 Antibody Picoband® (monoclonal, 5D7A1)
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-p95 NBS1 Antibody Picoband® (monoclonal, 5D7A1) catalog # M00732-1. Tested in FCM, IF, IHC, ICC, WB 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	Flow Cytometry, IF, IHC, ICC, WB
Clonality	Monoclonal 5D7A1
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.
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	Mouse
Uniprot ID	O60934

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human p95 NBS1, different from the related mouse sequence by three amino acids, and from the related rat sequence by five amino acids.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Mouse IgG (EK1001) for Western blot, and HRP Conjugated anti-Mouse IgG Super Vision Assay Kit (SV0001-1) for IHC(P) and ICC.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Mouse IgG2a
Form	Lyophilized

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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 Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Human Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human Flow Cytometry (Fixed), 1-3 ug/1x^{6} cells, Human

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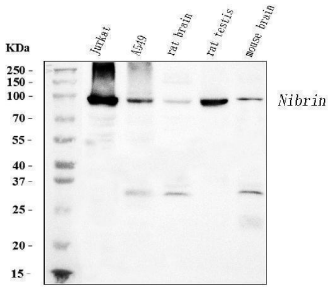
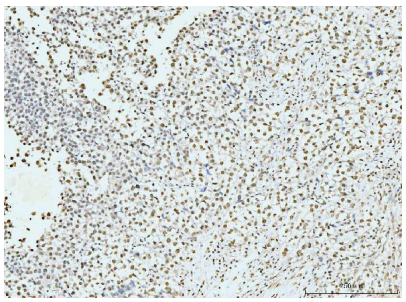
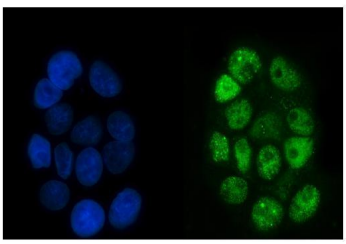
Anti-p95 NBS1 Antibody Picoband® (monoclonal, 5D7A1) (M00732-1) Images



Western blot analysis of p95 NBS1 using anti-p95 NBS1 antibody (M00732-1). 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 Jurkat whole cell lysates, Lane 2: human A549 whole cell lysates, Lane 3: rat brain tissue lysates, Lane 4: rat testis tissue lysates, Lane 5: 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 mouse anti-p95 NBS1 antigen affinity purified monoclonal antibody (Catalog # M00732-1) 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-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 p95 NBS1 at approximately 95 kDa. The expected band size for p95 NBS1 is at 95 kDa.



IHC analysis of p95 NBS1 using anti-p95 NBS1 antibody (M00732-1). p95 NBS1 was detected in a paraffin-embedded section of human testis cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml mouse anti-p95 NBS1 Antibody (M00732-1) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.



IF analysis of p95 NBS1 using anti-p95 NBS1 antibody (M00732-1). p95 NBS1 was detected in an immunocytochemical section of A431 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 mouse anti-p95 NBS1 Antibody (M00732-1) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Mouse IgG (BA1126) was used as secondary antibody at 1:100 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 A431 cells using anti-p95 NBS1 antibody (M00732-1). Overlay histogram showing A431 cells stained with M00732-1 (Blue line). To facilitate intracellular

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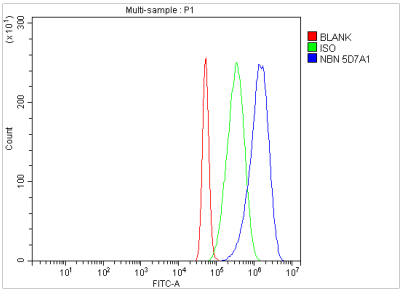

staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-p95 NBS1 Antibody (M00732-1, 1 ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10 ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse 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.

Anti-p95 NBS1 Antibody (monoclonal, 5D7A1)

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