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antibody and ELISA experts

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Anti-Proteasome 20S beta 7/PSMB7 Antibody Picoband®

Catalog Number: A08095-1

About PSMB7

Proteasome subunit beta type-7 as known as 20S proteasome subunit beta-2 is a protein that in humans is encoded by the PSMB7 gene. The proteasome is a multicatalytic proteinase complex with a highly ordered ring-shaped 20S core structure. The core structure is composed of 4 rings of 28 non-identical subunits; 2 rings are composed of 7 alpha subunits and 2 rings are composed of 7 beta subunits. Proteasomes are distributed throughout eukaryotic cells at a high concentration and cleave peptides in an ATP/ubiquitin-dependent process in a non-lysosomal pathway. The encoded protein is a member of the proteasome B-type family, also known as the T1B family, and is a 20S core beta subunit in the proteasome. Expression of this catalytic subunit is downregulated by gamma interferon, and proteolytic processing is required to generate a mature subunit. A pseudogene of this gene is located on the long arm of chromosome 14.

Overview

Product Name	Anti-Proteasome 20S beta 7/PSMB7 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Proteasome 20S beta 7/PSMB7 Antibody Picoband® catalog # A08095-1. Tested in ELISA, Flow Cytometry, 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	ELISA, Flow Cytometry, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 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	Rabbit
Uniprot ID	Q99436

Technical Details

Immunogen	E.coli-derived human Proteasome 20S beta 7/PSMB7 recombinant protein (Position: D17-S277).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P) and ICC.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG

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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 Immunohistochemistry(Paraffin-embedded Section), 2-5 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, -

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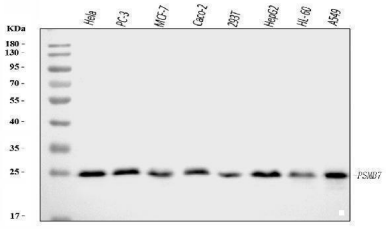
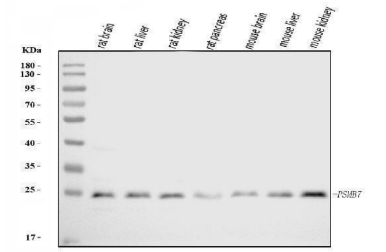
Anti-Proteasome 20S beta 7/PSMB7 Antibody Picoband® (A08095-1) Images



Western blot analysis of Proteasome 20S Beta 7/PSMB7 using anti-Proteasome 20S Beta 7/PSMB7 antibody (A08095-1). 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 Hela whole cell lysates, Lane 2: human PC-3 whole cell lysates, Lane 3: human MCF-7 whole cell lysates, Lane 4: human Caco-2 whole cell lysates, Lane 5: human 293T whole cell lysates, Lane 6; human HepG2 whole cell lysates, Lane 7: human HL-60 whole cell lysates, Lane 8: human A549 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-Proteasome 20S Beta 7/PSMB7 antigen affinity purified polyclonal antibody (Catalog # A08095-1) 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 Proteasome 20S Beta 7/PSMB7 at approximately 26 kDa. The expected band size for Proteasome 20S Beta 7/PSMB7 is at 26 kDa.



Western blot analysis of Proteasome 20S Beta 7/PSMB7 using anti-Proteasome 20S Beta 7/PSMB7 antibody (A08095-1). 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: rat liver tissue lysates, Lane 3: rat kidney tissue lysates, Lane 4: rat pancreas tissue lysates, Lane 5: mouse brain tissue lysates, Lane 6; mouse liver tissue lysates, Lane 7: mouse kidney 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-Proteasome 20S Beta 7/PSMB7 antigen affinity purified polyclonal antibody (Catalog # A08095-1) 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 Proteasome 20S Beta 7/PSMB7 at approximately 26 kDa. The expected band size for Proteasome 20S Beta 7/PSMB7 is at 26 kDa.

IHC analysis of Proteasome 20S Beta 7/PSMB7 using anti-

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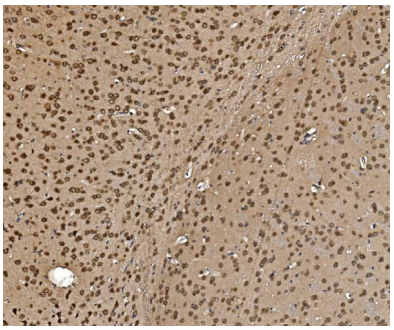
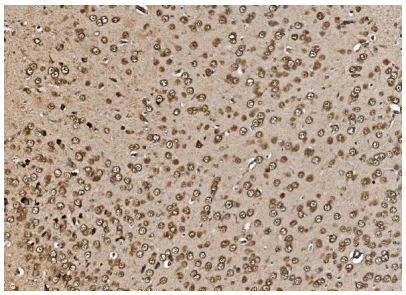
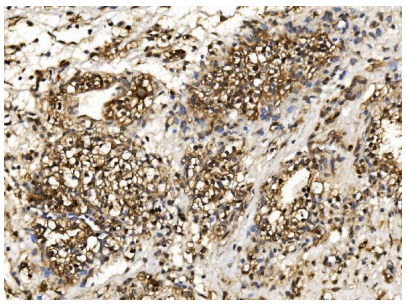


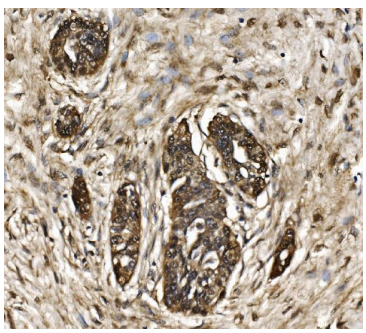
Proteasome 20S Beta 7/PSMB7 antibody (A08095-1). Proteasome 20S Beta 7/PSMB7 was detected in a paraffin-embedded section of mouse brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-Proteasome 20S Beta 7/PSMB7 Antibody (A08095-1) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IHC analysis of Proteasome 20S Beta 7/PSMB7 using anti-Proteasome 20S Beta 7/PSMB7 antibody (A08095-1). Proteasome 20S Beta 7/PSMB7 was detected in a paraffin-embedded section of rat brain 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 rabbit anti-Proteasome 20S Beta 7/PSMB7 Antibody (A08095-1) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IHC analysis of Proteasome 20S Beta 7/PSMB7 using anti-Proteasome 20S Beta 7/PSMB7 antibody (A08095-1). Proteasome 20S Beta 7/PSMB7 was detected in a paraffin-embedded section of human renal clear cell carcinoma 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 rabbit anti-Proteasome 20S Beta 7/PSMB7 Antibody (A08095-1) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IHC analysis of Proteasome 20S Beta 7/PSMB7 using anti-Proteasome 20S Beta 7/PSMB7 antibody (A08095-1). Proteasome 20S Beta 7/PSMB7 was detected in a paraffin-embedded section of human cervical intraepithelial neoplasia 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 rabbit anti-Proteasome 20S Beta 7/PSMB7 Antibody (A08095-1) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

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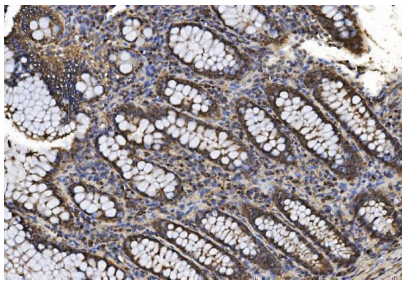
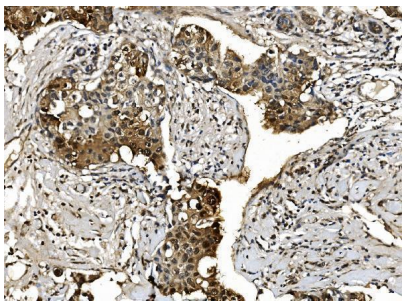
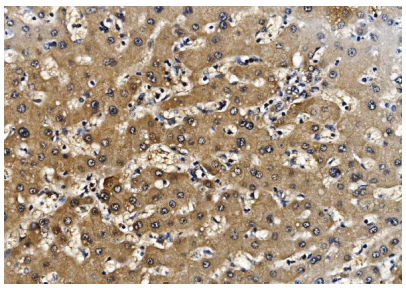


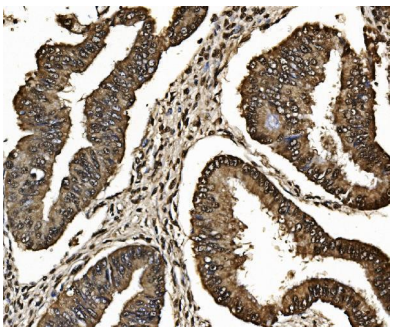
IHC analysis of Proteasome 20S Beta 7/PSMB7 using anti-Proteasome 20S Beta 7/PSMB7 antibody (A08095-1). Proteasome 20S Beta 7/PSMB7 was detected in a paraffin-embedded section of human colorectal cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-Proteasome 20S Beta 7/PSMB7 Antibody (A08095-1) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IHC analysis of Proteasome 20S Beta 7/PSMB7 using anti-Proteasome 20S Beta 7/PSMB7 antibody (A08095-1). Proteasome 20S Beta 7/PSMB7 was detected in a paraffin-embedded section of human invasive breast carcinoma 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 rabbit anti-Proteasome 20S Beta 7/PSMB7 Antibody (A08095-1) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IHC analysis of Proteasome 20S Beta 7/PSMB7 using anti-Proteasome 20S Beta 7/PSMB7 antibody (A08095-1). Proteasome 20S Beta 7/PSMB7 was detected in a paraffin-embedded section of human liver 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 rabbit anti-Proteasome 20S Beta 7/PSMB7 Antibody (A08095-1) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IHC analysis of Proteasome 20S Beta 7/PSMB7 using anti-Proteasome 20S Beta 7/PSMB7 antibody (A08095-1). Proteasome 20S Beta 7/PSMB7 was detected in a paraffin-embedded section of human ovarian serous adenocarcinoma 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 rabbit anti-Proteasome 20S Beta 7/PSMB7 Antibody (A08095-1) overnight at 4°C. Peroxidase Conjugated Goat

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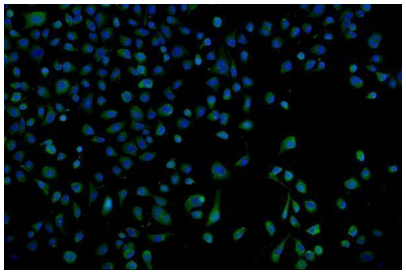
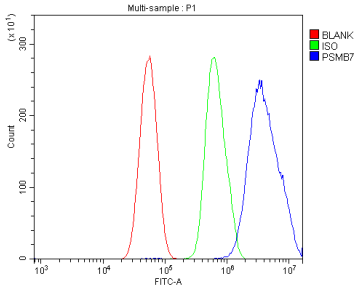
Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IF analysis of Proteasome 20S Beta 7/PSMB7 using anti-Proteasome 20S Beta 7/PSMB7 antibody (A08095-1). Proteasome 20S Beta 7/PSMB7 was detected in an immunocytochemical section of Hela 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-Proteasome 20S Beta 7/PSMB7 Antibody (A08095-1) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) 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 U87 cells using anti-Proteasome 20S Beta 7/PSMB7 antibody (A08095-1). Overlay histogram showing U87 cells stained with A08095-1 (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-Proteasome 20S Beta 7/PSMB7 Antibody (A08095-1, 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.

Anti-Proteasome 20S beta 7/PSMB7 Antibody

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