

## Anti-Proteasome 20S beta 7/PSMB7 Antibody Picoband® (monoclonal, 3H6C8)

Catalog Number: M08095-2

### 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

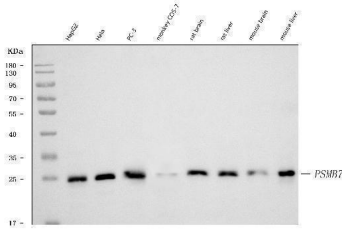
Product Name	Anti-Proteasome 20S beta 7/PSMB7 Antibody Picoband® (monoclonal, 3H6C8)
Reactive Species	Human, Monkey, Mouse, Rat
Description	Boster Bio Anti-Proteasome 20S beta 7/PSMB7 Antibody Picoband® (monoclonal, 3H6C8) catalog # M08095-2. Tested in Flow Cytometry, WB applications. This antibody reacts with Human, Monkey, 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, WB
Clonality	Monoclonal 3H6C8
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na <sub>2</sub> HPO <sub>4</sub> .
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	Q99436

### Technical Details

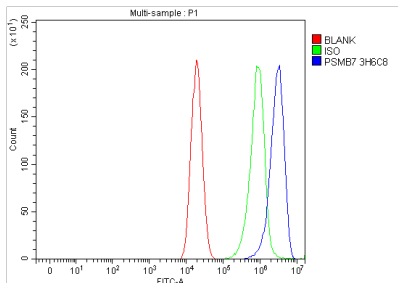
Immunogen	E.coli-derived human Proteasome 20S beta 7/PSMB7 recombinant protein (Position: D17-S277).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Mouse IgG (EK1001) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins.

Isotype	IgG2b
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 µg/ml, Human, Monkey, Mouse, Rat Flow Cytometry (Fixed), 1-3 µg/1x10 <sup>6</sup> cells, Human

## Anti-Proteasome 20S beta 7/PSMB7 Antibody Picoband® (monoclonal, 3H6C8) (M08095-2) Images



Western blot analysis of Proteasome 20S beta 7/PSMB7 using anti-Proteasome 20S beta 7/PSMB7 antibody (M08095-2). 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 HepG2 whole cell lysates, Lane 2: human Hela whole cell lysates, Lane 3: human PC-3 whole cell lysates, Lane 4: monkey COS-7 whole cell lysates, Lane 5: rat brain tissue lysates, Lane 6: rat liver tissue lysates, Lane 7: mouse brain tissue lysates, Lane 8: mouse liver 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-Proteasome 20S beta 7/PSMB7 antigen affinity purified monoclonal antibody (Catalog # M08095-2) 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 Proteasome 20S beta 7/PSMB7 at approximately 25 kDa. The expected band size for Proteasome 20S beta 7/PSMB7 is at 30 kDa.



Flow Cytometry analysis of CACO-2 cells using anti-PSMB7 antibody (M08095-2). Overlay histogram showing CACO-2 cells stained with M08095-2 (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 mouse anti-PSMB7 Antibody (M08095-2, 1 ug/1x10<sup>6</sup> cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10 ug/1x10<sup>6</sup> cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1 ug/1x10<sup>6</sup>) 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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