

# Anti-PSME2 Antibody [PSH0-10] - BSA and Azide free

## HA750579



<b>Product Type:</b>	Recombinant Rabbit monoclonal IgG, primary antibodies
<b>Species reactivity:</b>	Human, Mouse, Rat
<b>Applications:</b>	WB, IF-Cell, IHC-P, FC
<b>Molecular Wt:</b>	Predicted band size: 27 kDa
<b>Clone number:</b>	PSH0-10

**Description:** Proteasome activator complex subunit 2 is a protein that in humans is encoded by the PSME2 gene. The 26S proteasome is a multicatalytic proteinase complex with a highly ordered structure composed of 2 complexes, a 20S core and a 19S regulator. The 20S core 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. The 19S regulator is composed of a base, which contains 6 ATPase subunits and 2 non-ATPase subunits, and a lid, which contains up to 10 non-ATPase 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. An essential function of a modified proteasome, the immunoproteasome, is the processing of class I MHC peptides. The immunoproteasome contains an alternate regulator, referred to as the 11S regulator or PA28, that replaces the 19S regulator. Three subunits (alpha, beta and gamma) of the 11S regulator have been identified. This gene encodes the beta subunit of the 11S regulator, one of the two 11S subunits that is induced by gamma-interferon. Three beta and three alpha subunits combine to form a heterohexameric ring. Six pseudogenes have been identified on chromosomes 4, 5, 8, 10 and 13.

**Immunogen:** Recombinant protein within human aa 2-239.

**Positive control:** PC-12 cell lysate, 293T cell lysate, mouse liver tissue lysate, rat thymus tissue lysate, MCF-7 cell lysate, PC-3 cell lysate, HeLa, rat stomach tissue, human rectal carcinoma tissue, HepG2.

**Subcellular location:** Cytosol, Extracellular region or secreted, Nucleus.

**Database links:** SwissProt: Q9UL46 Human | P97372 Mouse | Q63798 Rat

**Recommended Dilutions:**

<b>WB</b>	1:1,000-1:5,000
<b>IF-Cell</b>	1:100
<b>IHC-P</b>	1:4,000
<b>FC</b>	1:500-1:1,000

**Storage Buffer:** 1\*PBS (pH7.4).

**Storage Instruction:** Store at +4°C after thawing. Aliquot store at -20°C. Avoid repeated freeze / thaw cycles.

**Purity:** Protein A affinity purified.

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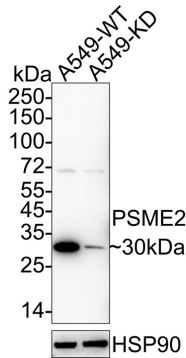
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## Images



**Fig1:** Western blot analysis of PSME2 on different lysates with Rabbit anti-PSME2 antibody (HA750579) at 1/2,000 dilution.

Lane 1: A549-si NT cell lysate

Lane 2: A549-si PSME2 cell lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 27 kDa

Observed band size: 30 kDa

Exposure time: 30 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDN/TBST for 1 hour at room temperature. The primary antibody (HA750579) at 1/2,000 dilution was used in 5% NFDN/TBST at 4°C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

**Fig2:** Western blot analysis of PSME2 on different lysates with Rabbit anti-PSME2 antibody (HA750579) at 1/1,000 dilution.

Lane 1: PC-12 cell lysate (10 µg/Lane)

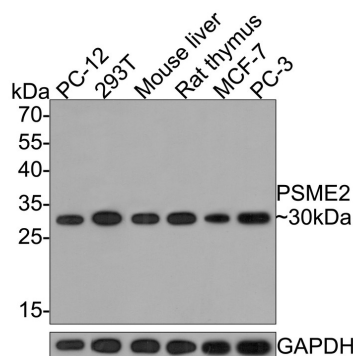
Lane 2: 293T cell lysate (10 µg/Lane)

Lane 3: Mouse liver tissue lysate (20 µg/Lane)

Lane 4: Rat thymus tissue lysate (20 µg/Lane)

Lane 5: MCF-7 cell lysate (10 µg/Lane)

Lane 6: PC-3 cell lysate (10 µg/Lane)



Predicted band size: 27 kDa

Observed band size: 30 kDa

Exposure time: 2 minutes;

12% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDN/TBST for 1 hour at room temperature. The primary antibody (HA750579) at 1/1,000 dilution was used in 5% NFDN/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:300,000 dilution was used for 1 hour at room temperature.

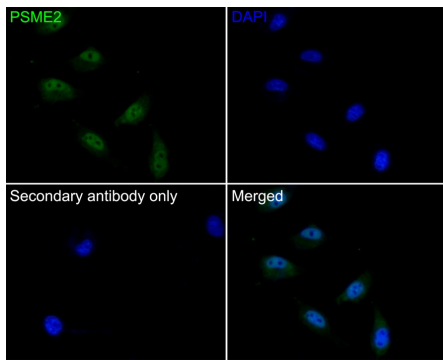
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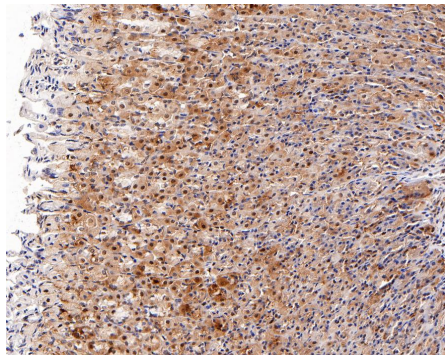
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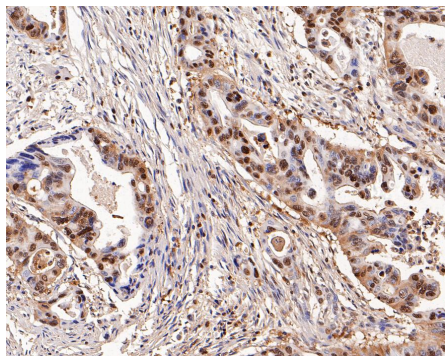
**Fig3:** Immunocytochemistry analysis of HeLa cells labeling PSME2 with Rabbit anti-PSME2 antibody (HA750579) at 1/100 dilution.

Cells were fixed in 4% paraformaldehyde for 10 minutes at 37 °C, permeabilized with 0.05% Triton X-100 in PBS for 20 minutes, and then blocked with 2% negative goat serum for 30 minutes at room temperature. Cells were then incubated with Rabbit anti-PSME2 antibody (HA750579) at 1/100 dilution in 2% negative goat serum overnight at 4 °C. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.



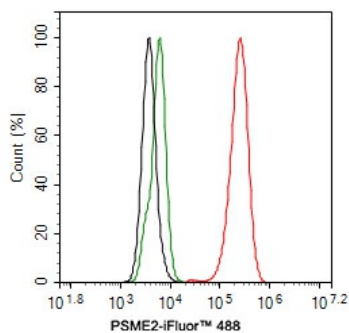
**Fig4:** Immunohistochemical analysis of paraffin-embedded rat stomach tissue with Rabbit anti-PSME2 antibody (HA750579) at 1/4,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (HA750579) at 1/4,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.



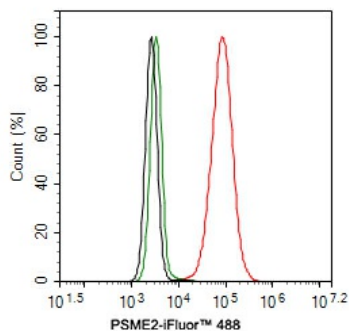
**Fig5:** Immunohistochemical analysis of paraffin-embedded human rectal carcinoma tissue with Rabbit anti-PSME2 antibody (HA750579) at 1/4,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (HA750579) at 1/4,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.



**Fig6:** Flow cytometric analysis of HeLa cells labeling PSME2.

Cells were fixed and permeabilized. Then stained with the primary antibody (HA750579, 1ug/ml) (red) compared with Rabbit IgG Isotype Control (green). After incubation of the primary antibody at +4°C for an hour, the cells were stained with a iFluor™ 488 conjugate-Goat anti-Rabbit IgG Secondary antibody (HA1121) at 1/1,000 dilution for 30 minutes at +4°C. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).



**Fig7:** Flow cytometric analysis of HepG2 cells labeling PSME2.

Cells were fixed and permeabilized. Then stained with the primary antibody (HA750579, 1ug/ml) (red) compared with Rabbit IgG Isotype Control (green). After incubation of the primary antibody at +4°C for an hour, the cells were stained with a iFluor™ 488 conjugate-Goat anti-Rabbit IgG Secondary antibody (HA1121) at 1/1,000 dilution for 30 minutes at +4°C. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

**Note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

## Background References

1. Ahn JY, Tanahashi N, Akiyama K, Hisamatsu H, Noda C, Tanaka K, Chung CH, Shibmara N, Willy PJ, Mott JD (Jul 1995).

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