# **Anti-PSMA3 Antibody [JE51-59]**

### ET7110-20



Product Type: Recombinant Rabbit monoclonal IgG, primary antibodies

Species reactivity: Human, Mouse, Rat
Applications: WB, IF-Cell, IHC-P

Molecular Wt: Predicted band size: 28 kDa

Clone number: JE51-59

**Description:** Component of the 20S core proteasome complex involved in the proteolytic degradation of

most intracellular proteins. This complex plays numerous essential roles within the cell by associating with different regulatory particles. Associated with two 19S regulatory particles, forms the 26S proteasome and thus participates in the ATP-dependent degradation of ubiquitinated proteins. The 26S proteasome plays a key role in the maintenance of protein homeostasis by removing misfolded or damaged proteins that could impair cellular functions, and by removing proteins whose functions are no longer required. Associated with the PA200 or PA28, the 20S proteasome mediates ubiquitin-independent protein degradation. This type of proteolysis is required in several pathways including spermatogenesis (20S-PA200 complex) or generation of a subset of MHC class I-presented antigenic peptides (20S-PA28 complex). Binds to the C-terminus of CDKN1A and thereby mediates its degradation. Negatively regulates the membrane trafficking of the cell-surface thromboxane

A2 receptor (TBXA2R) isoform 2.

Immunogen: Recombinant protein within Human PSMA3 aa 1-189 / 255.

Positive control: A549 cell lysate, PC-12 cell lysate, NIH/3T3 cell lysate, SW620, rat large intestine tissue,

human liver tissue, human breast tissue, human placenta tissue.

**Subcellular location:** Cytoplasm, Nucleus, Proteasome.

Database links: SwissProt: P25788 Human | O70435 Mouse | P18422 Rat

Recommended Dilutions:

WB 1:500-1:2,000 IF-Cell 1:50-1:100 IHC-P 1:50-1:100

Storage Buffer: 1\*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Shipped at  $4^{\circ}$ C. Store at  $+4^{\circ}$ C short term (1-2 weeks). It is recommended to aliquot into

single-use upon delivery. Store at -20 °C long term.

**Purity:** Protein A affinity purified.

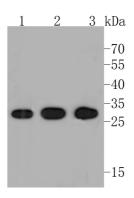
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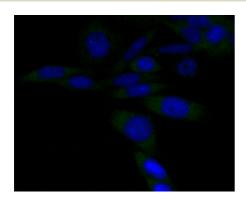
#### **Images**



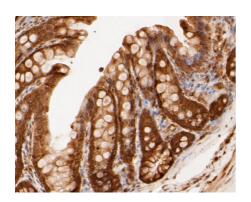
**Fig1:** Western blot analysis of PSMA3 on different lysates. Proteins were transferred to a PVDF membrane and blocked with 5% BSA in PBS for 1 hour at room temperature. The primary antibody (ET7110-20, 1/500) was used in 5% BSA at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:200,000 dilution was used for 1 hour at room temperature.

#### Positive control:

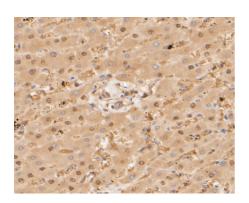
Lane 1: A549 cell lysate Lane 2: PC-12 cell lysate Lane 3: NIH/3T3 cell lysate



**Fig2:** ICC staining of PSMA3 in SW620 cells (green). Formalin fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 10 minutes at room temperature and blocked with 10% negative goat serum for 15 minutes at room temperature. Cells were probed with the primary antibody (ET7110-20, 1/50) for 1 hour at room temperature, washed with PBS. Alexa Fluor®488 conjugate-Goat anti-Rabbit IgG was used as the secondary antibody at 1/1,000 dilution. The nuclear counter stain is DAPI (blue).



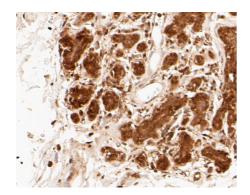
**Fig3:** Immunohistochemical analysis of paraffin-embedded rat large intestine tissue using anti-PSMA3 antibody. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) (high pressure) for 2 minutes. The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (ET7110-20, 1/50) for 30 minutes 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.



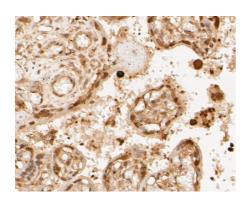
**Fig4:** Immunohistochemical analysis of paraffin-embedded human liver tissue using anti-PSMA3 antibody. The section was pretreated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) (high pressure) for 2 minutes. The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (ET7110-20, 1/50) for 30 minutes 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.

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**Fig5:** Immunohistochemical analysis of paraffin-embedded human breast tissue using anti-PSMA3 antibody. The section was pretreated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) (high pressure) for 2 minutes. The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (ET7110-20, 1/50) for 30 minutes 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:** Immunohistochemical analysis of paraffin-embedded human placenta tissue using anti-PSMA3 antibody. The section was pretreated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) (high pressure) for 2 minutes. The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (ET7110-20, 1/50) for 30 minutes 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.

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

#### **Background References**

- 1. Sasaki M. et. al. Low expression of cell-surface thromboxane A2 receptor beta-isoform through the negative regulation of its membrane traffic by proteasomes. Prostaglandins Other Lipid Mediat. 83:237-249(2007).
- 2. Rut W. et. al. Human 20S proteasome activity towards fluorogenic peptides of various chain lengths. Biol. Chem. 397:921-926(2016)