

Anti-PSMA antibody [GCP-05] ab66912

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Overview

Product name	Anti-PSMA antibody [GCP-05]
Description	Mouse monoclonal [GCP-05] to PSMA
Host species	Mouse
Tested applications	Suitable for: Flow Cyt
Species reactivity	Reacts with: Human
Immunogen	Recombinant fragment, corresponding to amino acids 44-750 of Human PSMA
Epitope	This antibody recognizes the extracellular domain of PSMA.
Positive control	LNCaP cells.
General notes	<p>This product was changed from ascites to tissue culture supernatant on 24th January 2018. Please note that the dilutions may need to be adjusted accordingly. If you have any questions, please do not hesitate to contact our scientific support team.</p> <p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	<p>pH: 7.4</p> <p>Preservative: 0.097% Sodium azide</p> <p>Constituent: PBS</p>
Purity	Protein A purified
Purification notes	Purity: > 95% Purified from TCS
Clonality	Monoclonal
Clone number	GCP-05

Isotype

IgG1

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab66912 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt		Use a concentration of 1 - 4 µg/ml. ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Target

Function

Has both folate hydrolase and N-acetylated-alpha-linked-acidic dipeptidase (NAALADase) activity. Has a preference for tri-alpha-glutamate peptides. In the intestine, required for the uptake of folate. In the brain, modulates excitatory neurotransmission through the hydrolysis of the neuropeptide, N-aceylaspartylglutamate (NAAG), thereby releasing glutamate. Isoform PSM-4 and isoform PSM-5 would appear to be physiologically irrelevant. Involved in prostate tumor progression.

Also exhibits a dipeptidyl-peptidase IV type activity. In vitro, cleaves Gly-Pro-AMC.

Tissue specificity

Highly expressed in prostate epithelium. Detected in urinary bladder, kidney, testis, ovary, fallopian tube, breast, adrenal gland, liver, esophagus, stomach, small intestine, colon and brain (at protein level). Detected in the small intestine, brain, kidney, liver, spleen, colon, trachea, spinal cord and the capillary endothelium of a variety of tumors. Expressed specifically in jejunum brush border membranes. In the brain, highly expressed in the ventral striatum and brain stem. Also expressed in fetal liver and kidney. Isoform PSMA' is the most abundant form in normal prostate. Isoform PSMA-1 is the most abundant form in primary prostate tumors. Isoform PSMA-2 is also found in normal prostate as well as in brain and liver. Isoform PSMA-9 is specifically expressed in prostate cancer.

Sequence similarities

Belongs to the peptidase M28 family. M28B subfamily.

Domain

The NAALADase activity is found in the central region, the dipeptidyl peptidase IV type activity in the C-terminal.

Post-translational modifications

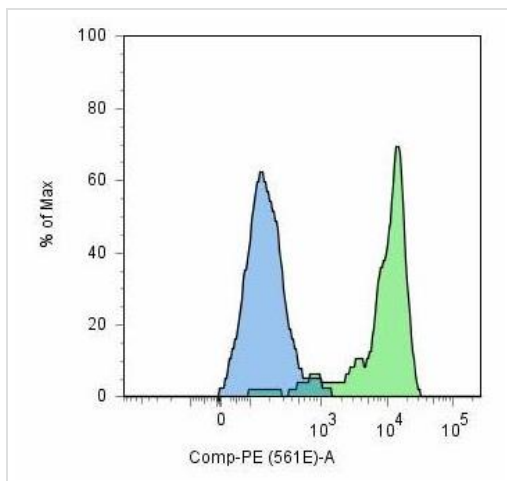
The first two amino acids at the N-terminus of isoform PSMA' appear to be cleaved by limited proteolysis.

The N-terminus is blocked.

Cellular localization

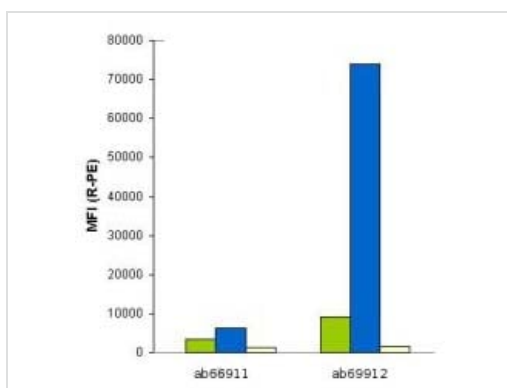
Cytoplasm and Cell membrane.

Images



Flow cytometry analysis of PSMA positive LNCaP cells stained with ab66912 (green) and PSMA negative HeLa cells (blue)

Flow Cytometry - Anti-PSMA antibody [GCP-05]
(ab66912)



This image shows LNCaP cell line stained by **ab66911** and ab66912. Green column - antibodies at 1µg/ml; Blue column - antibodies at 5µg/ml; Yellow column - negative cell line.

Flow Cytometry - Anti-PSMA antibody [GCP-05]
(ab66912)

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