abcam

Product datasheet

Anti-PSMA antibody [SP29] ab64082

Recombinant RabMAb

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Overview

Product name	Anti-PSMA antibody [SP29]
Description	Rabbit monoclonal [SP29] to PSMA
Host species	Rabbit
Tested applications	**Suitable for:** IHC-P
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide. This information is considered to be commercially sensitive.
Positive control	Human prostate carcinoma
General notes	ab64082 was switched from a hybridoma to recombinant production method on 17th September 2019. This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**. **This product is FOR RESEARCH USE ONLY. For commercial use, please contact partnerships@abcam.com.**

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	pH: 7.20 Preservative: 0.1% Sodium azide Constituents: 1% BSA, PBS
Purity	Protein A purified
Clonality	Monoclonal

Clone number	SP29
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab64082 in the following tested applications.

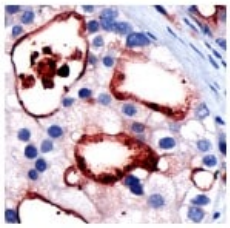
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P	★★★★☆ (1)	1/100. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. 1/100 for 30 min at room temperature. Staining of formalin fixed tissues requires boiling tissue sections in 10mM citrate buffer, pH 6.0 for 10 min followed by cooling at room temperature for 20 min.

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



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PSMA antibody [SP29] (ab64082)

Immunohistochemical analysis of PSMA expression in paraffin embedded formalin fixed human prostate carcinoma tissue using ab64082 at a 1/100 dilution.

This image was generated from the hybridoma version.

Anti-PSMA antibody [SP29] (ab64082)

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