

Product datasheet

Anti-PSMA antibody ab58779

2 Images

Overview

Product name	Anti-PSMA antibody
Description	Rabbit polyclonal to PSMA
Host species	Rabbit
Tested applications	Suitable for: IHC-P, ICC/IF
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide within Human PSMA aa 700 to the C-terminus (C terminal). The exact sequence is proprietary. Database link: Q04609
Positive control	Prostate carcinoma tissue. This antibody gave a positive result when used in the following formaldehyde-fixed cell lines: DU145.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	pH: 7.6 Preservative: 0.1% Sodium azide Constituents: PBS, 1% BSA
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab58779** in the following tested applications.

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

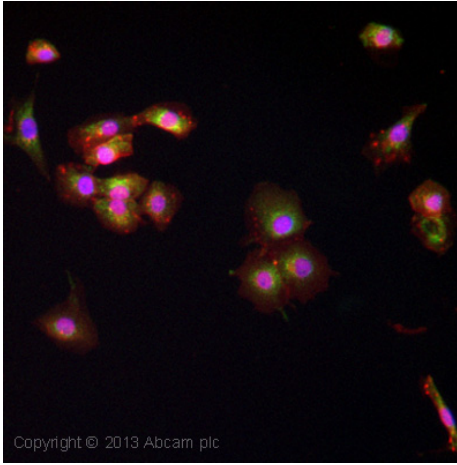
Application	Abreviews	Notes
IHC-P		1/100. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

Application	Abreviews	Notes
ICC/IF		Use a concentration of 5 µg/ml.

Target

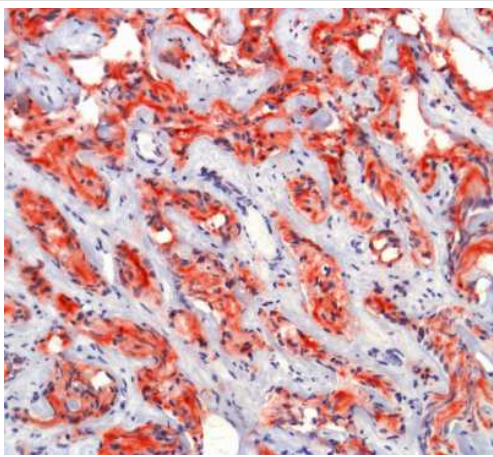
Function	<p>Has both folate hydrolase and N-acetylated-alpha-linked-acidic dipeptidase (NAALADase) activity. Has a preference for tri-alpha-glutamate peptides. In the intestine, required for the uptake of folate. In the brain, modulates excitatory neurotransmission through the hydrolysis of the neuropeptide, N-aceylaspartylglutamate (NAAG), thereby releasing glutamate. Isoform PSM-4 and isoform PSM-5 would appear to be physiologically irrelevant. Involved in prostate tumor progression.</p> <p>Also exhibits a dipeptidyl-peptidase IV type activity. In vitro, cleaves Gly-Pro-AMC.</p>
Tissue specificity	<p>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.</p>
Sequence similarities	<p>Belongs to the peptidase M28 family. M28B subfamily.</p>
Domain	<p>The NAALADase activity is found in the central region, the dipeptidyl peptidase IV type activity in the C-terminal.</p>
Post-translational modifications	<p>The first two amino acids at the N-terminus of isoform PSMA' appear to be cleaved by limited proteolysis.</p> <p>The N-terminus is blocked.</p>
Cellular localization	<p>Cytoplasm and Cell membrane.</p>

Images



ICC/IF image of ab58779 stained DU145 cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody ab58779 at 5 ug/mL overnight at +4°C. The secondary antibody (green) was DyLight® 488 goat anti-rabbit IgG (H+L) (ab96899) used at a 1/250 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

Immunocytochemistry/ Immunofluorescence - Anti-PSMA antibody (ab58779)



Human prostate carcinoma stained with ab58779 at a dilution of 1/100

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PSMA antibody (ab58779)

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