

## Product datasheet

# Anti-PSMA antibody ab231319

4 Images

### Overview

<b>Product name</b>	Anti-PSMA antibody
<b>Description</b>	Rabbit polyclonal to PSMA
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Pig <b>Predicted to work with:</b> Human

**Immunogen** Recombinant fragment (His-T7-tag) corresponding to Pig PSMA aa 275-588. (Expressed in E.coli).

Sequence:

```
ANEYAYRLQIAEAVGLPRIPVHPIGYSDAQKLEKMGGSAP
PDDSWKGSL
HVPYNVGPFGFTGNFSTQKVKMHIHSDNKVKRMYNIGTLRG
AVEPDRYVI
LGGHRDSWVFGGIDPQSGAAVVHEMRSFGKLLKKEGWRP
RRTVLFASWDA
EEYGLFGSTEWAEENSRILQERGVAYINADSSIEGNYTLRV
DCTPLMYSL
VYNLTKELQSPDEGFEGKSLFESWNEKSPSPEFSGLPRI
SKLGSGNDFEV
FFQRLGIASGRARYTKDWTNKFSSYPLYHSVYETYELVE
KFYDPTFKYH LAVAQVRGGVFEL
```

Database link: [O77564](#)

[Run BLAST with](#)

[Run BLAST with](#)

**Positive control** IHC-P: Pig kidney tissue. WB: Pig kidney and small intestine lysates; Recombinant pig PSMA protein.

**General notes**

Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.

Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.

We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™

guarantee.

In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.

We are also updating the applications & species that this product has been “predicted to work with,” however this information is not covered by our Abpromise guarantee.

Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.

Please check that this product meets your needs before purchasing. 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, as well as customer reviews and Q&As.

## Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: PBS, 50% Glycerol
<b>Purity</b>	Immunogen affinity purified
<b>Purification notes</b>	ab231319 was purified by antigen-specific affinity chromatography followed by Protein A affinity chromatography.
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

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Our [Abpromise guarantee](#) covers the use of **ab231319** 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
WB		Use a concentration of 0.2 - 2 µg/ml. Predicted molecular weight: 85 kDa.
IHC-P		Use a concentration of 5 - 20 µg/ml.

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## Target

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<b>Function</b>	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
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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

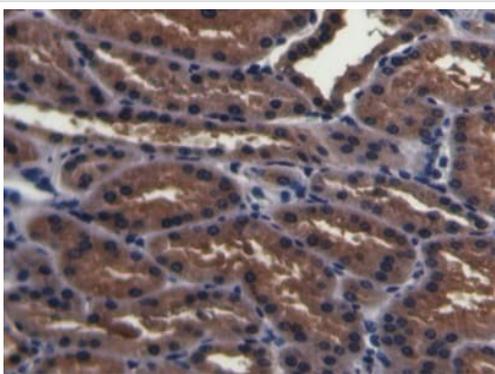
The first two amino acids at the N-terminus of isoform PSMA' appear to be cleaved by limited proteolysis.

The N-terminus is blocked.

### Cellular localization

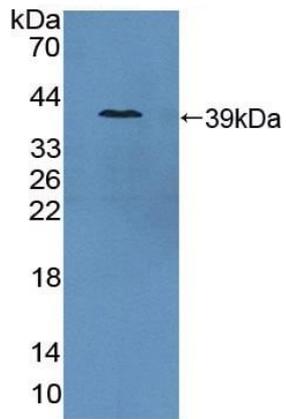
Cytoplasm and Cell membrane.

## Images



Paraffin-embedded pig kidney tissue stained for PSMA using ab231319 at 20 µg/ml in immunohistochemical analysis. DAB staining.

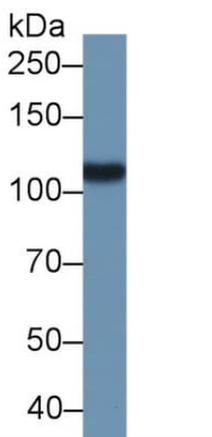
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PSMA antibody (ab231319)



Western blot - Anti-PSMA antibody (ab231319)

Anti-PSMA antibody (ab231319) at 2 µg/ml + Recombinant pig PSMA protein

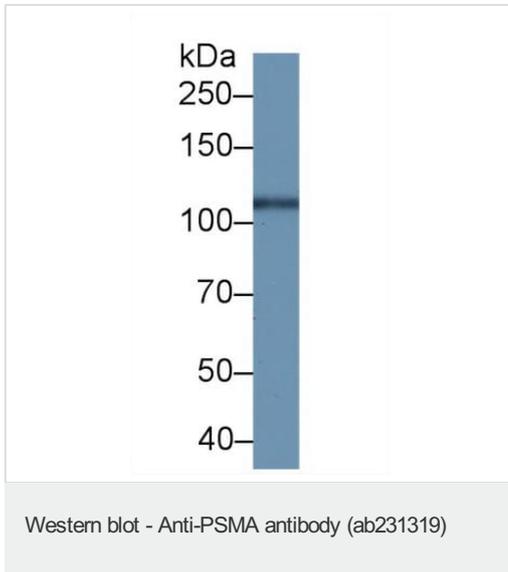
**Predicted band size:** 85 kDa



Western blot - Anti-PSMA antibody (ab231319)

Anti-PSMA antibody (ab231319) at 2 µg/ml + Pig kidney lysate

**Predicted band size:** 85 kDa



Anti-PSMA antibody (ab231319) at 2 µg/ml + Pig small intestine lysate

**Predicted band size:** 85 kDa

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

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