

Product datasheet

Anti-PSMA antibody [EP3253] ab76104

Recombinant RabMAb

[1 References](#) [5 Images](#)

Overview

Product name	Anti-PSMA antibody [EP3253]
Description	Rabbit monoclonal [EP3253] to PSMA
Host species	Rabbit
Tested applications	Suitable for: Flow Cyt (Intra), ICC/IF, WB, IP
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide within Human PSMA (N terminal). The exact sequence is proprietary.
Positive control	WB: LNCaP cell lysate. IP: LNCaP cell lysate. Flow Cyt (intra): LNCaP cells. ICC/IF: LNCaP cells.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

Properties

Form	Liquid
Storage instructions	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.
Storage buffer	<p>pH: 7.2</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: 0.05% BSA, 40% Glycerol (glycerin, glycerine), 59% PBS</p>
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EP3253
Isotype	IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab76104 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 (Intra)		1/20. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
ICC/IF		1/50.
WB		1/1000. Predicted molecular weight: 84 kDa.
IP		1/20.

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

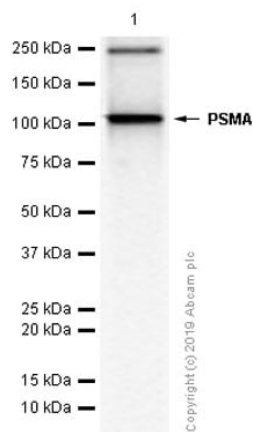
The first two amino acids at the N-terminus of isoform PSMA' appear to be cleaved by limited proteolysis.

The N-terminus is blocked.

Cellular localization

Cytoplasm and Cell membrane.

Images



Western blot - Anti-PSMA antibody [EP3253]
(ab76104)

Anti-PSMA antibody [EP3253] (ab76104) at 1/1000 dilution
(Purified) + LNCaP (Human prostate carcinoma epithelial cell)
whole cell lysates at 15 µg

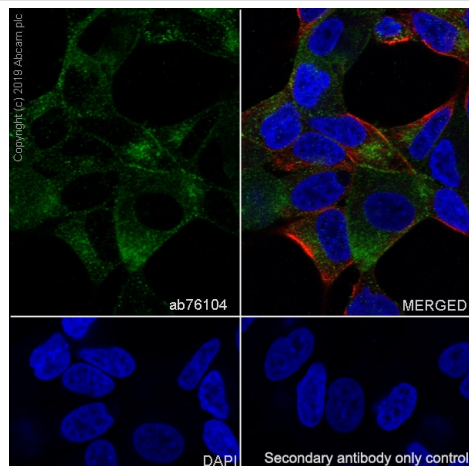
Secondary

Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

Predicted band size: 84 kDa

Observed band size: 110 kDa

Blocking/Diluting buffer: 5% NFDm/TBST



Immunocytochemistry/ Immunofluorescence - Anti-
PSMA antibody [EP3253] (ab76104)

Immunocytochemistry/ Immunofluorescence analysis of LNCaP
(Human prostate carcinoma epithelial cell) cells labeling PSMA with
Purified ab76104 at 1/50 (3.36 µg/mL). Cells were fixed in 4%
Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells
were counterstained with [ab195889](#) Anti-alpha Tubulin antibody
[DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200 (2.5 µg/mL).
Goat anti rabbit IgG (Alexa Fluor® 488, [ab150077](#)) was used as
the secondary antibody at 1/1000 (2 µg/mL) dilution. DAPI (blue)
was used as nuclear counterstain. PBS instead of the primary
antibody was used as the secondary antibody only control.



Immunoprecipitation - Anti-PSMA antibody [EP3253]
(ab76104)

Purified ab76104 at 1/20 dilution (1ug) immunoprecipitating PSMA in LNCaP whole cell lysate.

Lane 1 (input): LNCaP (Human prostatecarcinoma epithelial cell) whole cell lysate (10µg)

Lane 2 (+): ab76104 + LNCaP whole cell lysate.

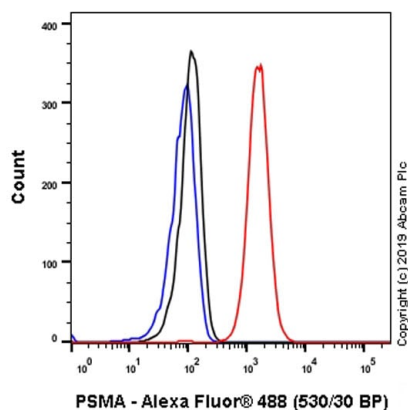
Lane 3 (-): Rabbit monoclonal IgG (**ab172730**) instead of ab76104 in LNCaP whole cell lysate.

VeriBlot for IP Detection Reagent (HRP) (**ab131366**) (1/1000) was used for Western blotting.

Blocking Buffer and concentration: 5% NFDm/TBST.

Diluting buffer and concentration: 5% NFDm/TBST.

Observed band size: 110 kDa



Flow Cytometry (Intracellular) - Anti-PSMA antibody
[EP3253] (ab76104)

Intracellular Flow Cytometry analysis of LNCaP (Human prostatecarcinoma epithelial cell) cells labeling PSMA with Purified ab76104 at 1/20 dilution (10 µg/mL) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).

Why choose a recombinant antibody?



Research with
confidence
Consistent and
reproducible results



Long-term and
scalable supply
Recombinant
technology



Success from the
first experiment
Confirmed
specificity



Ethical standards
compliant
Animal-free
production

Anti-PSMA antibody [EP3253] (ab76104)

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- Response to your inquiry within 24 hours

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