Overview

Product name: Anti-PSMA antibody
Description: Rabbit polyclonal to PSMA
Host species: Rabbit
Tested applications: Suitable for: WB
Species reactivity: Reacts with: Human
Predicted to work with: Mouse, Rat, Cow, Pig

Immunogen: Synthetic peptide conjugated to KLH derived from within residues 550 - 650 of Human PSMA. Read Abcam’s proprietary immunogen policy (Peptide available as ab97421.)

Positive control: This antibody gave a positive signal in the following lysates: MCF7 Whole Cell; MDA-MB-231 Whole Cell; Human Prostate Tissue; HeLa Whole Cell.

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 or -80°C. Avoid freeze / thaw cycle.
Storage buffer: Preservative: 0.02% Sodium Azide
 Constituents: 1% BSA, PBS, pH 7.4
Purity: Immunogen affinity purified
Clonality: Polyclonal
Isotype: IgG

Applications

Our Abpromise guarantee covers the use of ab71720 in the following tested applications.

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

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>WB</td>
<td></td>
<td>Use a concentration of 1 µg/ml. Detects a band of approximately 84 kDa (predicted molecular weight: 84 kDa).</td>
</tr>
<tr>
<td>Target</td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td><strong>Function</strong></td>
<td>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-acetylaspartylglutamate (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.</td>
<td></td>
</tr>
<tr>
<td><strong>Tissue specificity</strong></td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td><strong>Sequence similarities</strong></td>
<td>Belongs to the peptidase M28 family. M28B subfamily.</td>
<td></td>
</tr>
<tr>
<td><strong>Domain</strong></td>
<td>The NAALADase activity is found in the central region, the dipeptidyl peptidase IV type activity in the C-terminal.</td>
<td></td>
</tr>
<tr>
<td><strong>Post-translational modifications</strong></td>
<td>The first two amino acids at the N-terminus of isoform PSMA’ appear to be cleaved by limited proteolysis. The N-terminus is blocked.</td>
<td></td>
</tr>
<tr>
<td><strong>Cellular localization</strong></td>
<td>Cytoplasm and Cell membrane.</td>
<td></td>
</tr>
</tbody>
</table>

**Images**
**All lanes**: Anti-PSMA antibody (ab71720) at 1 µg/ml

**Lane 1**: MCF7 (Human breast adenocarcinoma cell line) Whole Cell Lysate

**Lane 2**: MDA-MB-231 (Human breast adenocarcinoma cell line) Whole Cell Lysate

**Lane 3**: Prostate (Human) Tissue Lysate

**Lane 4**: HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

**Secondary**

**All lanes**: Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) (ab65484) at 1/3000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size**: 84 kDa

**Observed band size**: 84 kDa

**Exposure time**: 15 minutes

---

**Please note**: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

---

**Our Abpromise to you: Quality guaranteed and expert technical support**

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours

- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

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 [http://www.abcam.com/abpromise](http://www.abcam.com/abpromise) or contact our technical team.
• Guarantee only valid for products bought direct from Abcam or one of our authorized distributors