Product datasheet

Anti-PKC alpha (phospho T497) antibody [EP2608Y] ab76016

Overview

<table>
<thead>
<tr>
<th>Product name</th>
<th>Anti-PKC alpha (phospho T497) antibody [EP2608Y]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Rabbit monoclonal [EP2608Y] to PKC alpha (phospho T497)</td>
</tr>
<tr>
<td>Host species</td>
<td>Rabbit</td>
</tr>
<tr>
<td>Specificity</td>
<td>Detects PKC alpha only when phosphorylated on threonine 497.</td>
</tr>
<tr>
<td>Tested applications</td>
<td>Suitable for: Dot blot, WB, IP, IHC-P</td>
</tr>
<tr>
<td></td>
<td>Unsuitable for: Flow Cyt or ICC/IF</td>
</tr>
<tr>
<td>Species reactivity</td>
<td>Reacts with: Mouse, Rat, Human</td>
</tr>
<tr>
<td>Immunogen</td>
<td>Synthetic peptide (the amino acid sequence is considered to be commercially sensitive) within Human PKC alpha (phospho T497). The exact sequence is proprietary. (Peptide available as ab178734)</td>
</tr>
<tr>
<td>Positive control</td>
<td>WB: Jurkat cell lysate. IHC-P: Human kidney tissue.</td>
</tr>
<tr>
<td>General notes</td>
<td>Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.</td>
</tr>
</tbody>
</table>

Properties

<table>
<thead>
<tr>
<th>Form</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage instructions</td>
<td>Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.</td>
</tr>
</tbody>
</table>
| Storage buffer | pH: 7.20  
Preservative: 0.05% Sodium azide  
Constituents: 0.1% BSA, 40% Glycerol, 9.85% Tris glycine, 50% Tissue culture supernatant |
| Purity        | Tissue culture supernatant |
| Clonality     | Monoclonal |
| Clone number  | EP2608Y   |
| Isotype       | IgG      |
Our Abpromise guarantee covers the use of ab\textbf{76016} 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>Dot blot</td>
<td>Use at an assay dependent concentration.</td>
<td></td>
</tr>
<tr>
<td>WB</td>
<td>1/50000 - 1/100000. Predicted molecular weight: 77 kDa.</td>
<td></td>
</tr>
<tr>
<td>IP</td>
<td>1/50.</td>
<td></td>
</tr>
<tr>
<td>IHC-P</td>
<td>1/100 - 1/250. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.</td>
<td></td>
</tr>
</tbody>
</table>

**Application notes**

Is unsuitable for Flow Cyt or ICC/IF.

**Target**

**Function**

This is a calcium-activated, phospholipid-dependent, serine- and threonine-specific enzyme. May play a role in cell motility by phosphorylating CSPG4. PKC is activated by diacylglycerol which in turn phosphorylates a range of cellular proteins. PKC also serves as the receptor for phorbol esters, a class of tumor promoters.

**Sequence similarities**

Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family. PKC subfamily. Contains 1 AGC-kinase C-terminal domain. Contains 1 C2 domain. Contains 2 phorbol-ester/DAG-type zinc fingers. Contains 1 protein kinase domain.

**Cellular localization**


**Images**

All lanes: Anti-PKC alpha (phospho T497) antibody [EP2608Y] (ab76016) at 1/20000 dilution

Lane 1: Untreated K562 (human chronic myelogenous leukemia) whole cell lysates

Lane 2: K562 (human chronic myelogenous leukemia) cells treated with Calyculin A whole cell lysates

Lane 3: K562 (human chronic myelogenous leukemia) cells were treated with Calyculin A whole cell lysates. Then the membrane was incubated with Alkaline phosphatase.

Lysates/proteins at 10 µg per lane.

**Secondary**
**All lanes**: Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

**Predicted band size**: 77 kDa

**Observed band size**: 77 kDa

**Exposure time**: 3 minutes

Blocking and diluting buffer - 5% NFDM/TBST

ab76016, at 1/100 dilution, staining PKC alpha in human kidney by immunohistochemistry using paraffin-embedded tissue.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

---

**All lanes**: Anti-PKC alpha (phospho T497) antibody [EP2608Y] (ab76016) at 1/20000 dilution

**Lane 1**: Untreated HeLa (human cervix adenocarcinoma) whole cell lysates

**Lane 2**: HeLa (human cervix adenocarcinoma) cells treated with Calyculin A whole cell lysates

**Lane 3**: HeLa (human cervix adenocarcinoma) cells were treated with Calyculin A whole cell lysates. Then the membrane was incubated with Alkaline phosphatase.

Lysates/proteins at 10 µg per lane.

**Secondary**

**All lanes**: Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

**Predicted band size**: 77 kDa

**Observed band size**: 77 kDa

**Exposure time**: 3 minutes
Blocking/Diluting Buffer - 5% NFDM/TBST

**All lanes**: Anti-PKC alpha (phospho T497) antibody [EP2608Y] (ab76016) at 1/100000 dilution

**Lane 1**: Jurkat cell lysate - untreated
**Lane 2**: Jurkat cell lysate - treated with LP

Lysates/proteins at 10 µg per lane.

**Secondary**
**All lanes**: HRP-conjugated goat anti-rabbit IgG at 1/1000 dilution

**Predicted band size**: 77 kDa
**Observed band size**: 80 kDa

Why is the actual band size different from the predicted?

LP is Lambda Phosphatase. It is not an inducer of phosphorylation but is essential to treat the membrane (not the cells).

Dot blot analysis of PKC alpha (pT497) peptide (Lane 1) and PKC alpha non-phospho peptide (Lane 2) labelling PKC alpha (phospho T497) with ab76016 at a dilution of 1/1000. A peroxidase-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody at a dilution of 1/2500.

Blocking and dilution buffer: 5% NFDM/TBST.

Exposure time: 3 minutes.

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

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 https://www.abcam.com/abpromise or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors