Product datasheet

Anti-5 Lipoxygenase/5-LO antibody [EP6072(2)]
ab169755

Overview

Product name  Anti-5 Lipoxygenase/5-LO antibody [EP6072(2)]
Description  Rabbit monoclonal [EP6072(2)] to 5 Lipoxygenase/5-LO
Host species  Rabbit
Tested applications  Suitable for: Flow Cyt, WB, IHC-P, ICC/IF
Species reactivity  Reacts with: Mouse, Rat, Human
                  Predicted to work with: Dog
Immunogen  Synthetic peptide within Human 5 Lipoxygenase/5-LO aa 100-200. The exact sequence is proprietary.
            Database link: P09917
Positive control  Fetal thymus, K562 and HUVEC lysates. Human prostate and Human tonsil tissue. HUVEC cells.
General notes  Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.

This product is a recombinant rabbit monoclonal antibody.

Properties

Form  Liquid
Storage buffer  Preservative: 0.01% Sodium azide
               Constituents: 40% Glycerol, 0.05% BSA, PBS
Purity  Protein A purified
Clonality  Monoclonal
Clone number
EP6072(2)

Isotype
IgG

Applications

Our Abpromise guarantee covers the use of ab169755 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>Flow Cyt</td>
<td></td>
<td>Use at an assay dependent concentration. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.</td>
</tr>
<tr>
<td>IHC-P</td>
<td>1/100. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. See IHC antigen retrieval protocols. For unpurified use at 1/100 - 1/250.</td>
<td></td>
</tr>
<tr>
<td>ICC/IF</td>
<td>1/100.</td>
<td></td>
</tr>
</tbody>
</table>

Target

Function
Catalyzes the first step in leukotriene biosynthesis, and thereby plays a role in inflammatory processes.

Pathway
Lipid metabolism; leukotriene A4 biosynthesis.

Sequence similarities
Belongs to the lipoxygenase family.
Contains 1 lipoxygenase domain.
Contains 1 PLAT domain.

Post-translational modifications
Serine phosphorylation by MAPKAPK2 is stimulated by arachidonic acid. Phosphorylation on Ser-523 by PKA has an inhibitory effect. Phosphorylation on Ser-272 prevents export from the nucleus.

Cellular localization
**Western blot** - Anti-5 Lipoxygenase/5-LO antibody [EP6072(2)] (ab169755)

- **All lanes**: Anti-5 Lipoxygenase/5-LO antibody [EP6072(2)] (ab169755) at 1/1000 dilution
- **Lane 1**: Rat heart lysate
- **Lane 2**: Rat kidney lysate
- **Lane 3**: Rat spleen lysate

Lysates/proteins at 20 µg per lane.

**Secondary**

- **All lanes**: Goat Anti-Rabbit IgG, (H+L), HRP-conjugated at 1/1000 dilution

**Predicted band size**: 78 kDa

Blocking buffer and concentration: 5% NFDM/TBST.

Diluting buffer and concentration: 5% NFDM/TBST.

ab169755 staining 5 Lipoxygenase/5-LO in Human tonsil tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed and paraffin-embedded, antigen retrieval was by heat mediation in Tris/EDTA buffer pH9. Samples were incubated with primary antibody (1/100). An undiluted HRP-conjugated mouse anti-rabbit IgG was used as the secondary antibody. Tissue counterstained with Hematoxylin. PBS was used in the negative control rather than the Primary antibody.
Immunohistochemical analysis of paraffin-embedded Human tonsil tissue labeling 5 Lipoxigenase/5-LO with ab169755, unpurified, at 1/100 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Immunohistochemical analysis of paraffin-embedded Human prostate tissue labeling 5 Lipoxigenase/5-LO with ab169755, unpurified, at 1/100 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
Immunocytochemistry/Immunofluorescence - Anti-5 Lipoxygenase/5-LO antibody [EP6072(2)]

(ab169755)

ab169755 staining 5 Lipoxygenase/5-LO in the Raw264.7 cell line by ICC/IF (Immunocytochemistry/Immunofluorescence). Cells were fixed with 4% Paraformaldehyde permeabilized with 0.1% Triton X-100. Samples were incubated with primary antibody (1/100). ab150077 (1/500) an Alexa Fluor® 488-conjugated Goat anti-rabbit IgG was used as the secondary antibody. Nuclei were counterstained with DAPI.

Flow Cytometry - Anti-5 Lipoxygenase/5-LO antibody [EP6072(2)]

(ab169755)

ab169755 staining 5 Lipoxygenase/5-LO in HUVEC (human umbilical vein/vascular endothelium) by flow cytometry. Cells were fixed with 4% paraformaldehyde, permabilised with 90% methanol and the sample was incubated with the primary antibody at a dilution of 1/130. A goat anti rabbit IgG (Alexa Fluor® 488) at a dilution of 1/2000 was used as the secondary antibody.

Isoytype control: Rabbit monoclonal IgG (black).
Unlabelled control: Cell without incubation with primary antibody and secondary antibody (blue).

Western blot - Anti-5 Lipoxygenase/5-LO antibody [EP6072(2)]

(ab169755)

Anti-5 Lipoxygenase/5-LO antibody [EP6072(2)] (ab169755) at 1/1000 dilution + K562 cell Lysate at 10 µg

Secondary

Goat Anti-Rabbit IgG, (H+L), HRP-conjugated at 1/1000 dilution

Predicted band size: 78 kDa

Blocking buffer and concentration: 5% NFDM/TBST.
Diluting buffer and concentration: 5% NFDM/TBST.
Western blot - Anti-5 Lipoxygenase/5-LO antibody [EP6072(2)] (ab169755)

**Human fetal thymus at 10 µg**

**Secondary**

Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/1000 dilution

**Predicted band size:** 78 kDa

Blocking buffer and concentration: 5% NFDM/TBST.

Diluting buffer and concentration: 5% NFDM /TBST.

Immunofluorescent analysis of HUVEC cells labeling 5 Lipoxygenase/5-LO with ab169755, unpurified, at 1/100 dilution.

Immunocytochemistry/ Immunofluorescence - Anti-5 Lipoxygenase/5-LO antibody [EP6072(2)]

(ab169755)

**All lanes**: Anti-5 Lipoxygenase/5-LO antibody [EP6072(2)] (ab169755) at 1/1000 dilution (unpurified)

**Lane 1**: Fetal thymus lysate

**Lane 2**: K562 lysate

**Lane 3**: HUVEC lysate

Lysates/proteins at 10 µg per lane.

**Predicted band size**: 78 kDa

Western blot - Anti-5 Lipoxygenase/5-LO antibody [EP6072(2)] (ab169755)
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