Product datasheet

Anti-LAMP1 antibody - Lysosome Marker ab24170

87 Abreviews  245 References  6 Images

Overview

Product name  Anti-LAMP1 antibody - Lysosome Marker
Description  Rabbit polyclonal to LAMP1 - Lysosome Marker
Host species  Rabbit
Tested applications  Suitable for: IP, IHC-P, WB, IHC-Fr
Species reactivity  Reacts with: Mouse, Rat, Chicken, Hamster, Cat, Dog, Human, Xenopus laevis, Zebrafish, African green monkey
Predicted to work with: Cow

Immunogen  Synthetic peptide conjugated to KLH derived from within residues 350 to the C-terminus of Human LAMP1. Read Abcam's proprietary immunogen policy (Peptide available as ab25744.)

Positive control  WB: Jurkat (Human T cell lymphoblast-like cell line), A431 (Human epithelial carcinoma cell line), HEK293 (Human embryonic kidney cell line) and MCF7 (Human breast adenocarcinoma cell line) whole cell lysates. IHC-P: FFPE human normal kidney tissue sections.

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 ab24170 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.
Function
Presents carbohydrate ligands to selectins. Also implicated in tumor cell metastasis.

Sequence similarities
Belongs to the LAMP family.

Post-translational modifications
O- and N-glycosylated; some of the 18 N-linked glycans are polylactosaminoglycans.

Cellular localization

Application | Abreviews | Notes
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IP |  | Use at an assay dependent concentration. PubMed: 21152024

IHC-P | ★★★★★ | Use a concentration of 1 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

WB | ★★★★☆ | Use a concentration of 1 µg/ml. Detects a band of approximately 90-130 kDa (predicted molecular weight: 120 kDa).
Some variability in MW may be observed due to differing levels of glycosylation of the target protein in different cell/tissue types. Abcam recommends using Milk as the blocking agent.

IHC-Fr | ★★★★★ | Use at an assay dependent concentration.

Target

Images
IHC image of LAMP1 staining in a section of formalin-fixed paraffin-embedded normal human kidney* performed on a Leica BOND™ system using the standard protocol B. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20mins. The section was then incubated with ab24170, 1ug/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX. The inset secondary-only control image is taken from an identical assay without primary antibody.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre
**Western blot - Anti-LAMP1 antibody - Lysosome Marker (ab24170)**

**All lanes**: Anti-LAMP1 antibody - Lysosome Marker (ab24170) at 1 µg/ml

**Lane 1**: Jurkat (Human) Whole Cell Lysate

**Lane 2**: HEK293 (Human) Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

**Secondary**

**All lanes**: Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed at 1/50000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size**: 120 kDa

**Observed band size**: 120 kDa

**Additional bands at**: 20 kDa. We are unsure as to the identity of these extra bands.

**Exposure time**: 8 minutes

This blot was produced using a 4-12% Bis-tris gel under the MOPS buffer system. The gel was run at 200V for 50 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 3% Milk before being incubated with ab24170 overnight at 4°C. Antibody binding was detected using an anti-rabbit antibody conjugated to HRP, and visualised using ECL development solution ab133406.

Abcam recommends using milk as the blocking agent. Abcam welcomes customer feedback and would appreciate any comments regarding this product and the data presented above.
ab24170 staining LAMP1 in human kidney tissue sections. Staining correlates with lysosomal specificity, particularly in the proximal convoluted tubules where lysosomes are enriched. Formalin/PFA-fixed human kidney tissue sections were incubated with ab24170 (1/200) for 2 hours. Antigen retrieval was performed by heat induction in citrate buffer pH 6. Please see accompanying abreview for additional information.

**Western blot**

- **All lanes**: Anti-LAMP1 antibody - Lysosome Marker (ab24170) at 1 µg/ml
- **Lane 1**: Jurkat (Human T cell lymphoblast-like cell line) Whole Cell Lysate
- **Lane 2**: A431 (Human epithelial carcinoma cell line) Whole Cell Lysate
- **Lane 3**: HEK293 Human embryonic kidney cell line Whole Cell Lysate
- **Lane 4**: MCF7 (Human breast adenocarcinoma cell line) Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

**Secondary**

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

Performed under reducing conditions.

**Predicted band size**: 120 kDa
**Observed band size**: 120 kDa
**Additional bands at**: 23 kDa, 35 kDa, 45 kDa. We are unsure as to the identity of these extra bands.
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LAMP1 antibody - Lysosome Marker (ab24170)

This image is courtesy of an abreview submitted by Dr. Martin Broadstock (King's College London, United Kingdom)

IHC-P image of LAMP1 staining on human Cortex sections using ab24170 (1:400). The sections were deparaffinized and subjected to heat mediated antigen retrieval using citric acid. The sections were then permeabilized using 0.05% Tween-20 and blocking was performed using 3% BSA for 1 hour at 21°C. The primary antibody ab24170 was diluted using 3% BSA with 0.05% Tween-20 in PBS and incubated with the sections for 18 hours at 4°C. The secondary antibody used was Goat polyclonal to rabbit IgG conjugated to biotin (1:500).

Anti-LAMP1 antibody - Lysosome Marker (ab24170) at 1/700 dilution (in 5% milk for 4 hours at 20°C) + Rat Kidney - whole tissue lysate at 18 µg

Secondary
An HRP-conjugated Goat anti-rabbit IgG polyclonal at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 120 kDa
Observed band size: 120 kDa

Exposure time: 5 minutes

Blocking Step: 5% Milk for 1 hour at 20°C

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