

Anti-LMAN1 antibody [EPR6979] - BSA and Azide free ab248096

KO VALIDATED Recombinant RabMAb

8 Images

Overview

Product name	Anti-LMAN1 antibody [EPR6979] - BSA and Azide free
Description	Rabbit monoclonal [EPR6979] to LMAN1 - BSA and Azide free
Host species	Rabbit
Tested applications	Suitable for: Flow Cyt (Intra), ICC/IF, IHC-P, WB
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Jurkat, HEK-293T and HeLa cell lysates; Mouse and Rat spleen and heart lysates; ICC/IF: 293T cells; IHC-P: Human, rat, and mouse kidney tissue sections. Flow Cyt (intra): HeLa cells.
General notes	<p>ab248096 is the carrier-free version of ab125006.</p> <p>Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.</p> <p>This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.</p> <p>Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.</p> <p>This product is compatible with the Maxpar[®] Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar[®] is a trademark of Fluidigm Canada Inc.</p> <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. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR6979
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab248096 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)		Use at an assay dependent concentration.
ICC/IF		Use at an assay dependent concentration.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. See <u>IHC antigen retrieval protocols</u>. Heat up to 98°C, below boiling, and then let cool for 10-20 min.
WB		Use at an assay dependent concentration. Detects a band of approximately 53 kDa (predicted molecular weight: 58 kDa).

Target

Function	Mannose-specific lectin. May recognize sugar residues of glycoproteins, glycolipids, or glycosylphosphatidyl inositol anchors and may be involved in the sorting or recycling of proteins, lipids, or both. The LMAN1-MCFD2 complex forms a specific cargo receptor for the ER-to-Golgi transport of selected proteins.
Tissue specificity	Ubiquitous.
Involvement in disease	Defects in LMAN1 are THE cause of factor V and factor VIII combined deficiency type 1 (F5F8D1) [MIM:227300]; also known as multiple coagulation factor deficiency I (MCFD1). F5F8D1 is an autosomal recessive blood coagulation disorder characterized by bleeding symptoms similar to those in hemophilia or parahemophilia, that are caused by single deficiency of FV or FVIII, respectively. The most common symptoms are epistaxis, menorrhagia, and excessive bleeding during or after trauma. Plasma levels of coagulation factors V and VIII are in

the range of 5 to 30% of normal.

Sequence similarities

Contains 1 L-type lectin-like domain.

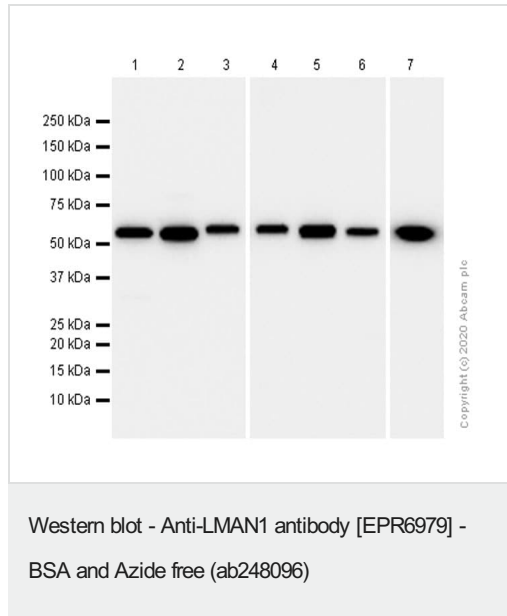
Post-translational modifications

The N-terminal may be partly blocked.

Cellular localization

Endoplasmic reticulum-Golgi intermediate compartment membrane. Golgi apparatus membrane. Endoplasmic reticulum membrane.

Images



All lanes : Anti-LMAN1 antibody [EPR6979] ([ab125006](#)) at 1/1000 dilution

Lane 1 : Jurkat (Human T cell leukemia T lymphocyte) whole cell lysate

Lane 2 : HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate

Lane 3 : Mouse spleen lysate

Lane 4 : Mouse heart lysate

Lane 5 : Rat spleen lysate

Lane 6 : Rat heart lysate

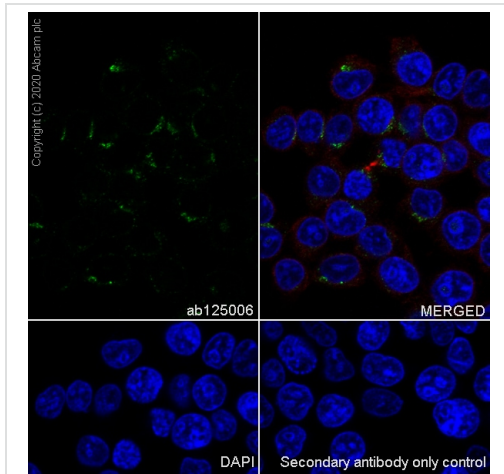
Lane 7 : HEK-293 (Human embryonic kidney epithelial cell) whole cell lysate

Lysates/proteins at 20 µg per lane.

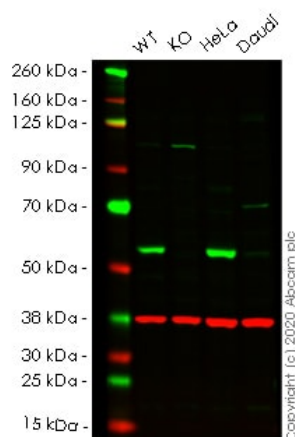
Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution (Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated)

Predicted band size: 58 kDa



Immunocytochemistry/ Immunofluorescence - Anti-LMAN1 antibody [EPR6979] - BSA and Azide free (ab248096)



Western blot - Anti-LMAN1 antibody [EPR6979] - BSA and Azide free (ab248096)

This data was developed using **ab125006**, the same antibody clone in a different buffer formulation.

Immunocytochemistry analysis of 293T (Human embryonic kidney epithelial cell) cells labeling LMAN1 with Purified **ab125006** at 1/50 dilution (2 µg/mL). Cells were fixed in 100% Methanol and permeabilized with None. Cells were counterstained with Ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200 dilution (2.5 µg/mL). Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) was used as the secondary antibody at 1/1000 dilution (2 µg/mL). DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.

All lanes : Anti-LMAN1 antibody [EPR6979] (**ab125006**) at 1/1000 dilution

Lane 1 : Wild-type HEK-293T cell lysate

Lane 2 : LMAN1 knockout HEK-293T cell lysate

Lane 3 : HeLa cell lysate

Lane 4 : Daudi cell lysate

Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 58 kDa

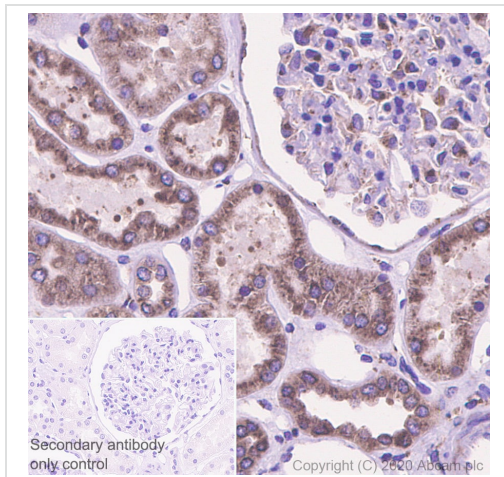
Observed band size: 55 kDa

This data was developed using the same antibody clone in a different buffer formulation (**ab125006**).

Lanes 1-4: Merged signal (red and green). Green - **ab125006** observed at 55 kDa. Red - loading control **ab8245** observed at 37 kDa.

ab125006 Anti-LMAN1 antibody [EPR6979] was shown to specifically react with Protein ERGIC-53 in wild-type HEK-293T cells. Loss of signal was observed when knockout cell line **ab266248** (knockout cell lysate **ab257505**) was used. Wild-type and Protein ERGIC-53 knockout samples were subjected to SDS-PAGE. **ab125006** and Anti-GAPDH antibody [6C5] - Loading

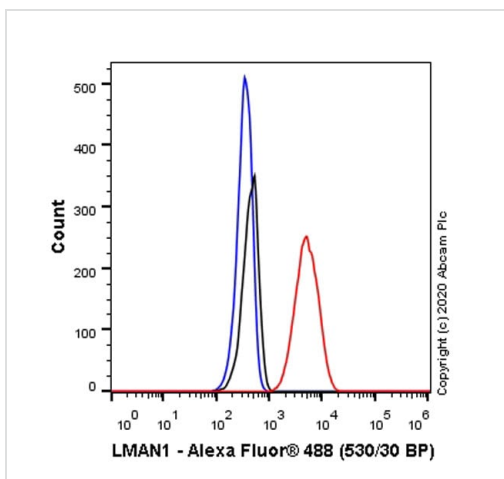
Control (**ab8245**) were incubated overnight at 4°C at 1 in 1000 Dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LMAN1 antibody [EPR6979] - BSA and Azide free (ab248096)

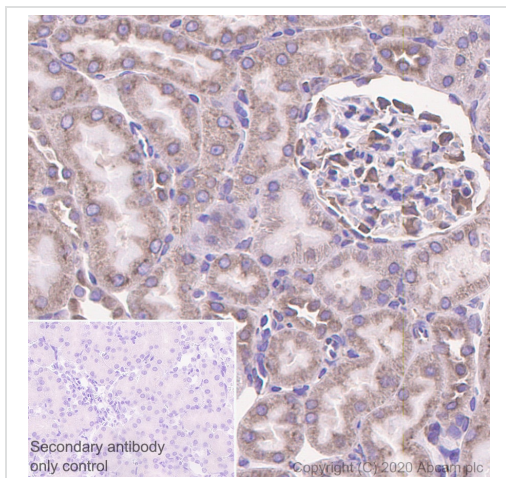
This data was developed using **ab125006**, the same antibody clone in a different buffer formulation.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human kidney tissue sections labeling LMAN1 with Purified **ab125006** at 1/500 dilution (0.21 µg/mL). Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0). Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Flow Cytometry (Intracellular) - Anti-LMAN1 antibody [EPR6979] - BSA and Azide free (ab248096)

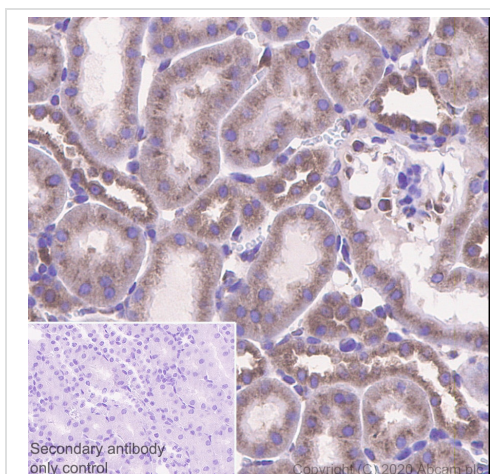
This data was developed using **ab125006**, the same antibody clone in a different buffer formulation. Intracellular Flow Cytometry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling LMAN1 with Purified **ab125006** at 1/20 dilution (10 µg/mL) (Red). Cells were fixed with 4% 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).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LMAN1 antibody [EPR6979] - BSA and Azide free (ab248096)

This data was developed using [ab125006](#), the same antibody clone in a different buffer formulation.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of rat kidney tissue sections labeling LMAN1 with Purified [ab125006](#) at 1/500 dilution (0.21 µg/mL). Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0). Rabbit specific IHC polymer detection kit HRP/DAB ([ab209101](#)) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LMAN1 antibody [EPR6979] - BSA and Azide free (ab248096)

This data was developed using [ab125006](#), the same antibody clone in a different buffer formulation.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse kidney tissue sections labeling LMAN1 with Purified [ab125006](#) at 1/500 dilution (0.21 µg/mL). Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0). Rabbit specific IHC polymer detection kit HRP/DAB ([ab209101](#)) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.

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

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