abcam

ab240063

Anti-LSP1 antibody [EPR5997] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR5997
Purification technique	Affinity purification Protein A
Dissociation constant	1.02 x 10^{-10} M
Concentration	0.994 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Mouse
Dilution info	-

Notes	-

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Rat
Dilution info	-
Notes	-

IP

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

WB

Expected

Species	Mouse, Rat, Human
Dilution info	Use at an assay dependent concentration.
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Rat
Dilution info	-
Notes	-

Target data

See full target information LSP1

Function	May play a role in mediating neutrophil activation and chemotaxis.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab240063 is the carrier-free version of ab133506.

Patented technology

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?

This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Conjugation ready

Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. 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.

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.

Compatibility

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.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Lymphocyte-specific protein 1 also known as LSP1 is a 52 kDa intracellular F-actin binding protein. It plays a role in cytoskeletal organization and cell motility. This protein has significant expression in lymphocytes neutrophils macrophages and endothelial cells. LSP1 modulates several cellular functions including adhesion and migration by interacting with the actin cytoskeleton. Known alternatively as pp52 and WD-40 repeat-containing protein 1 LSP1 acts as a link connecting signal transduction from cell surface receptors to cytoskeletal regions.
Biological function summary	LSP1 influences immune cell regulation and inflammatory response. By acting as an important player in the modulation of actin polymerization it contributes to leukocyte chemotaxis and transmigration. LSP1 forms part of a larger protein complex involved in reorganizing the cytoskeleton facilitating cellular dynamics necessary for immune response. Additionally interactions with adapter proteins like 14-3-3 add another level of functional regulation.
Pathways	LSP1 integrates into the chemokine signaling pathway and the P38 MAPK signaling pathway. In these pathways it exerts influence on cellular processes such as migration and response to external stimuli. It shows connections with proteins such as CXCR4 and MAPK highlighting its role in conveying chemotactic signals that direct immune cells toward inflammatory sites. These interactions are integral in establishing directionality and speed of cell movement in response to chemokine gradients.
Associated diseases and disorders	Aberrations in LSP1 function or expression link to autoimmune conditions like systemic lupus erythematosus and vascular disorders like atherosclerosis. Its role in mediating vascular permeability and leukocyte migration suggests that dysregulation can contribute to pathogenic inflammation. Related proteins like MCP-1 and ICAM-1 participate in these disease pathways highlighting the involvement of LSP1 in modulating endothelial responses and immune cell recruitment at sites of inflammation.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

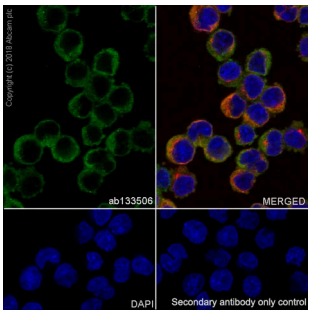
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

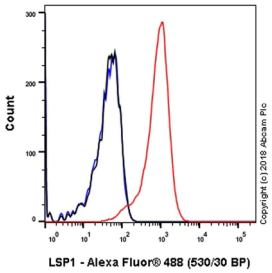
8 product images



Immunocytochemistry/ Immunofluorescence - Anti-LSP1 antibody [EPR5997] - BSA and Azide free (ab240063)

LSP1 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-LSP1 antibody

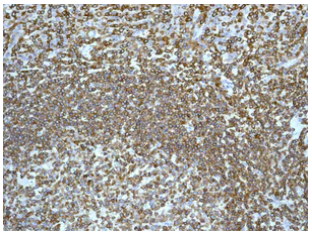
Immunocytochemistry/ Immunofluorescence analysis of Daudi (Human Burkitt's lymphoma lymphoblast) cells labeling LSP1 with purified ab133506 at 1:100 dilution (9.8 µg/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1:200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) was used as the secondary antibody at 1:1000 (2 µg/ml) dilution. DAPI nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Flow Cytometry (Intracellular) - Anti-LSP1 antibody [EPR5997] - BSA and Azide free (ab240063)

LSP1 Flow Cytometry (Intracellular) staining using rabbit Anti-LSP1 antibody

Intracellular Flow Cytometry analysis of Daudi (Human Burkitt's lymphoma lymphoblast) cells labeling LSP1 with purified ab133506 at 1/100 dilution (10 µg/ml) (red). Cells were fixed with 4% Paraformaldehyde. 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).

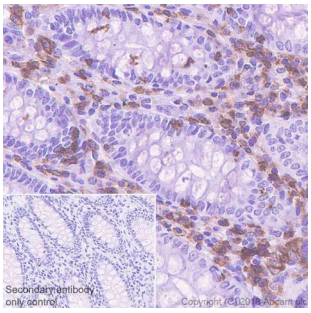


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LSP1 antibody [EPR5997] - BSA and Azide free (ab240063)

LSP1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-LSP1 antibody

Immunohistochemical analysis of paraffin-embedded Human tonsil tissue labelling LSP1 with ab133506 at 1/250 dilution.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab133506).

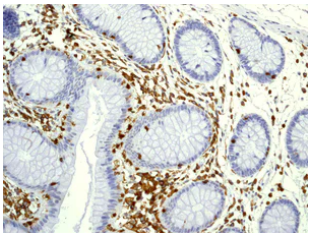
Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LSP1 antibody [EPR5997] - BSA and Azide free (ab240063)

LSP1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-LSP1 antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human colon tissue sections labeling LSP1 with purified ab133506 at 1:500 dilution (1.954 µg/ml). Heat mediated antigen retrieval was performed using ab93684 (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use)was used as the secondary antibody. Negative control:PBS instead of the primary antibody. Hematoxylin was used as a counterstain.

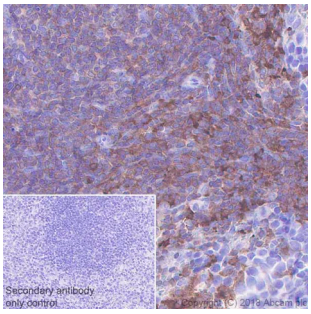


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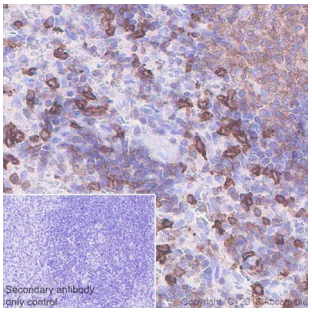
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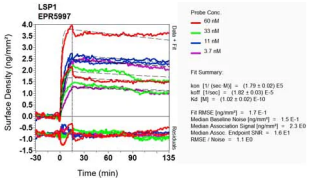
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Mouse spleen tissue sections labeling LSP1 with purified ab133506 at 1:500 dilution (1.954 µg/ml). Heat mediated antigen retrieval was performed using ab93684 (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use)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-LSP1 antibody [EPR5997] - BSA and Azide free (ab240063)

LSP1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-LSP1 antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Rat spleen tissue sections labeling LSP1 with purified ab133506 at 1:500 dilution (1.954 µg/ml). Heat mediated antigen retrieval was performed using ab93684 (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use)was used as the secondary antibody. Negative control:PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



OI-RD Scanning - Anti-LSP1 antibody [EPR5997] - BSA and Azide free (ab240063)

We have systematically measured KD (the equilibrium dissociation constant between the antibody and its antigen), of more than 840 recombinant antibodies to assess not only their individual KD values but also to see the average affinity of antibody. Based on the comparison with published literature values for mouse monoclonal antibodies, Recombinant antibodies appear to be on average 1-2 order of magnitude higher affinity.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.