abcam

ab75829

Anti-SLP76 (phospho Y145) antibody [EP2853Y]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EP2853Y
Purification technique	Affinity purification Protein A
Concentration	0.406 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Dot

Tested

Species	Synthetic peptide
Dilution info	1/1000
Notes	-

Expected

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

WB

Tested

Species	Human
Dilution info	1/1000 - 1/10000
Notes	-

Not recommended

Species	Synthetic peptide
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Human, Synthetic peptide
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/500
Notes	-

Not recommended

Species	Synthetic peptide
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/100
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Not recommended

Species	Synthetic peptide
Dilution info	-
Notes	-

Target data

See full target information LCP2 pY145

Function Adapter protein primarily involved in signaling pathways within T-cells, as well as other immune cells such as platelets, mast cells, and natural killer (NK) cells (PubMed:11313406, PubMed:33159816). Plays a crucial role for transducing signal from the T-cell receptor (TCR) after antigen recognition leading to T-cell activation. Mechanistically, once phosphorylated by the kinase ZAP70, mediates interactions with the guanine-nucleotide exchange factor VAV1, the adapter protein NCK and the kinase ITK (PubMed:8673706, PubMed:8702662). In turn, stimulates the activation of PKC-theta/PRKCQ and NF-kappa-B transcriptional activity in response to CD3 and CD28 costimulation (PubMed:11313406). Also plays an essential role in AGER-induced signaling pathways including p38 MAPK and ERK1/2 activation leading to cytokine release and pro-inflammatory responses (PubMed:33436632).

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage conditions	+4°C

Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

Species reactivity
Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

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.

Supplementary info

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

Activity summary	SLP76 also known as Src homology 2 domain-containing leukocyte phosphoprotein of 76 kDa plays a pivotal role in intracellular signaling. This adaptor protein weighs approximately 76 kilodaltons and is predominantly expressed in hematopoietic cells particularly T cells NK cells mast cells and platelets. SLP76 functions to relay signals from the cell surface to the nucleus affecting cellular responses including activation proliferation and differentiation.
Biological function summary	This adaptor protein serves as a scaffold linking membrane-proximal signaling to downstream cellular effectors. SLP76 forms part of a larger signaling complex with proteins such as LAT (Linker for Activation of T cells) and Gads facilitating the assembly of multi-protein complexes necessary for signal transduction. It coordinates the recruitment and activation of several enzymes and substrates which leads to robust immune cell responses.
Pathways	The function of SLP76 integrates into T cell receptor (TCR) signaling and integrin signaling pathways. In TCR signaling SLP76 interacts closely with proteins LAT and ZAP-70 which are triggered upon antigen recognition. This interaction propagates the immune response by activating downstream effectors like MAP kinases and

	NF-kB. In integrin signaling SLP76 helps mediate cytoskeletal rearrangements which are important for cell migration and adhesion.
Associated diseases and disorders	Mutations or dysregulation of SLP76 associate with immunodeficiencies and hematologic malignancies. Aberrant SLP76 activity can lead to inappropriate activation or inactivation of immune responses contributing to disorders as SCID (Severe Combined Immunodeficiency) and some types of leukemia. Additionally it connects with proteins such as LAT in disease contexts reflecting a shared pathway disruption contributing to the pathophysiology of these conditions.

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

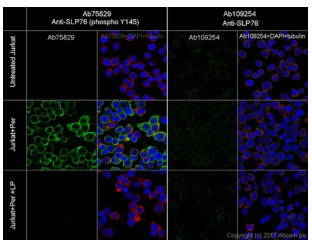
We do not recommend this combination. It is not covered by our product promise.

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.

6 product images

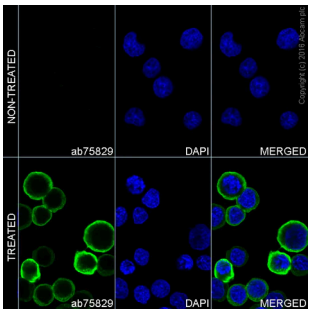


Immunocytochemistry/ Immunofluorescence - Anti-SLP76 (phospho Y145) antibody [EP2853Y] (ab75829)

SLP76 (phospho Y145) Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-SLP76 (phospho Y145) antibody

ab75829 staining SLP76 in Jurkat by Immunocytochemistry. Tissue was fixed with 4% paraformaldehyde. Samples were incubated with primary antibody (4.5 µg/ml). ab150077 AlexaFluor®488 Goat anti-Rabbit (1/1000) was used as the secondary antibody. ab195889 Anti-

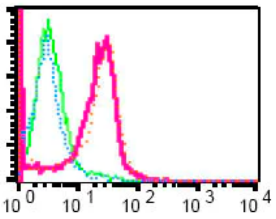
alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) **at** 2.5 µg/ml and DAPI were used as counter stains.
Confocal image showing the expression was increased after treatment with pervanadate (1mM 30min) and then decreased after treatment with the Lambda Protein Phosphatase 31°C for 2h



Immunocytochemistry/ Immunofluorescence - Anti-SLP76 (phospho Y145) antibody [EP2853Y] (ab75829)

SLP76 (phospho Y145) Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-SLP76 (phospho Y145) antibody

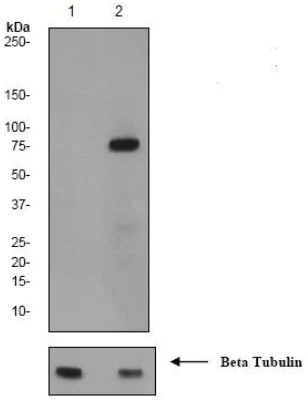
ab75829 staining SLP76 (phospho Y145) antibody in both treated (50mM of pervanadate for 5 minutes) and untreated Jurkat (human acute T cell leukemia) cells by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with 4% Paraformaldehyde and permeabilized with 0.1% Triton X-100. Samples were incubated with primary antibody at a dilution of 1/500. A goat anti rabbit IgG (Alexa Fluor® 488) (ab150077) was used as the secondary antibody at a dilution of 1/1000.
DAPI was used as a nuclear counterstain.



Flow Cytometry (Intracellular) - Anti-SLP76 (phospho Y145) antibody [EP2853Y] (ab75829)

SLP76 (phospho Y145) Flow Cytometry (Intracellular) staining using rabbit Anti-SLP76 (phospho Y145) antibody

Intracellular flow cytometric analysis of permeabilized Jurkat cells, untreated (green) or pervanadate treated (red) using ab75829 at a 1/100 dilution. Also, pervanadate Jurkat cells using the same antibody preincubated with phospho SLP76 peptide (blue) or non phospho SLP76 peptide (orange).



Western blot - Anti-SLP76 (phospho Y145) antibody [EP2853Y] (ab75829)

SLP76 (phospho Y145) Western blot staining using rabbit Anti-SLP76 (phospho Y145) antibody

All lanes:
Western blot - Anti-SLP76 (phospho Y145) antibody [EP2853Y] (ab75829) at 1/200000 dilution

Lane 1:
Jurkat cell lysate un-treated at 10 µg

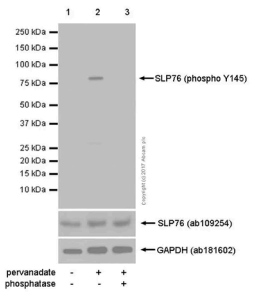
Lane 2:
Jurkat cell lysate treated with pervanadate at 10 µg

Secondary

All lanes:
HRP labelled goat anti-rabbit at 1/2000 dilution

Predicted band size: 60 kDa

Observed band size: 76 kDa



Western blot - Anti-SLP76 (phospho Y145) antibody [EP2853Y] (ab75829)

SLP76 (phospho Y145) Western blot staining using rabbit Anti-SLP76 (phospho Y145) antibody

Blocking buffer 5% NFDM/TBST. Diluting buffer 5% NFDM/TBST
All lanes:
Western blot - Anti-SLP76 (phospho Y145) antibody [EP2853Y] (ab75829) at 1/5000 dilution

Lane 1:
Jurkat (Human T cell leukemia T lymphocyte) whole cell lysates at 15 µg

Lane 2:
Jurkat (Human T cell leukemia T lymphocyte) whole cell lysates. treated with pervanadate at 50nM for 5 min at 15 µg

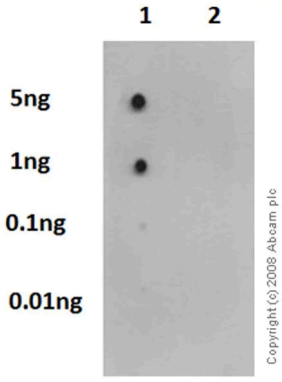
Lane 3:
Jurkat (Human T cell leukemia T lymphocyte) whole cell lysates. Treated with pervanadate at 50nM for 5 min. Then the membrane was incubated with phosphatase at 15 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 60 kDa

Observed band size: 76 kDa



Dot Blot - Anti-SLP76 (phospho Y145) antibody [EP2853Y] (ab75829)

SLP76 (phospho Y145) Dot Blot staining using rabbit Anti-SLP76 (phospho Y145) antibody

Dot blot analysis of SLP76 (phospho Y145) phospho peptide (Lane 1) SLP76 Non-phospho peptide (Lane 2) labelling SLP76 (phospho Y145) with ab75829 at a dilution of 1/1000. Peroxidase conjugated goat anti-rabbit IgG (H+L)) was used as the secondary antibody at a dilution of 1/2500. Blocking and diluting buffer: 5% NFDM/TBST.

Exposure time: 3 minutes.

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