abcam

ab309346

Anti-SPIB antibody [EPR26784-117]

Recombinant | RabMAb | 20ul selling size

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	EPR26784-117
Purification technique	Affinity purification Protein A
Concentration	0.531 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Human
Dilution info	1/1000
Notes	We recommend optimizing the protocol to enhance signal intensity by increasing protein loading (30-50 µg/lane), reducing primary antibody dilution (1:500), and utilizing femtogram-level ECL substrates.

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/100
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/50
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/50
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IP

Tested

Species	Human
Dilution info	1/30
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information SPIB

Function Sequence specific transcriptional activator which binds to the PU-box, a purine-rich DNA sequence (5'-GAGGAA-3') that can act as a lymphoid-specific enhancer. Promotes development of plasmacytoid dendritic cells (pDCs), also known as type 2 DC precursors (pre-DC2) or natural interferon (IFN)-producing cells. These cells have the capacity to produce large amounts of interferon and block viral replication. May be required for B-cell receptor (BCR) signaling, which is necessary for normal B-cell development and antigenic stimulation.

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
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

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	The SPIB protein also known as Spi-B transcription factor is a member of the ETS family of transcription factors. Its molecular weight is approximately 31 kDa. SPIB is expressed mainly in lymphoid tissues including the spleen thymus and lymph nodes with high activity observed in B-cells and plasmacytoid dendritic cells. As a transcription factor SPIB binds to specific DNA sequences and influences the transcription of various genes involved in immune response and cellular development.
Biological function summary	SPIB regulates gene expression important for immune system function. It plays a role in hematopoiesis particularly in the differentiation and function of B-cells and plasmacytoid dendritic cells. SPIB does not form complexes with other proteins in a classical sense but it does interact with other transcription factors within the

	cell’s nucleus to modulate gene expression. This regulation is significant for ensuring the immune system's proper response to pathogens.
Pathways	SPIB influences several critical biological pathways. It is an important player in the Toll-like receptor (TLR) signaling pathway which is essential for recognizing pathogens and activating innate immunity. Within this pathway SPIB interacts with proteins such as IRF4 and IRF8 which also play roles in immune system regulation. SPIB's involvement extends to the B-cell receptor signaling pathway influencing the development and function of B-cells.
Associated diseases and disorders	SPIB has associations with certain autoimmune conditions and hematological malignancies. In particular alterations in SPIB expression are linked to systemic lupus erythematosus (SLE) an autoimmune disease characterized by the immune system attacking its own tissues. Furthermore SPIB can influence the pathogenesis of some lymphomas such as diffuse large B-cell lymphoma (DLBCL) in which IRF4 also plays a pivotal role. Understanding SPIB's involvement in these diseases provides potential targets for therapeutic intervention.

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

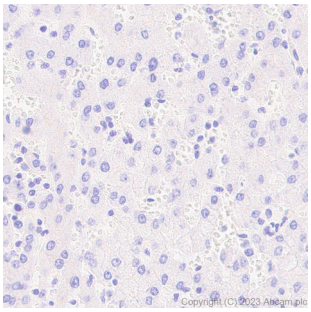
We do not recommend this combination. It is not covered by our product promise.

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.

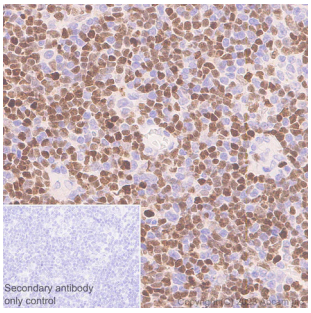
9 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SPIB antibody [EPR26784-117] (ab309346)

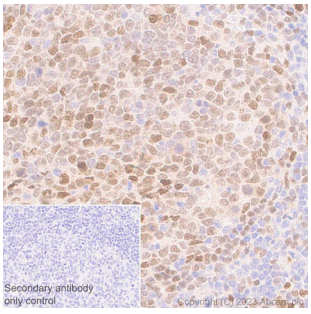
SPIB Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human liver using rabbit Anti-SPIB antibody

Immunohistochemical analysis of paraffin-embedded Human liver tissue labeling SPIB with ab309346 at 1/100 (5.31 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Negative control: No staining on human liver (PMID: 26610895).The section was incubated with ab309346 for 30 mins at room temperature.The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



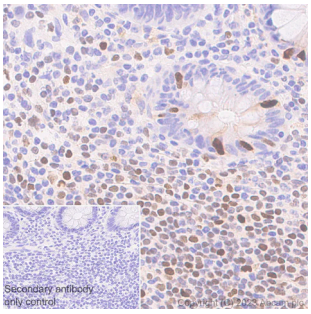
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SPIB antibody [EPR26784-117] (ab309346)

Immunohistochemical analysis of paraffin-embedded Human Non-Hodgkin ly tissue labeling SPIB with ab309346 at 1/100 (5.31 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Nuclear staining on human Non-Hodgkin lymphoma (PMID: 23165482).The section was incubated with ab309346 for 30 mins at room temperature.The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



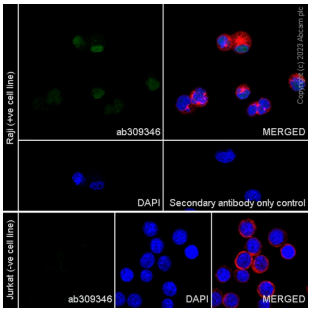
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SPIB antibody [EPR26784-117] (ab309346)

Immunohistochemical analysis of paraffin-embedded Human tonsil tissue labeling SPIB with ab309346 at 1/100 (5.31 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Nuclear staining on human tonsil (PMID: 23165482).The section was incubated with ab309346 for 30 mins at room temperature.The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



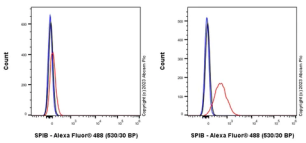
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SPIB antibody [EPR26784-117] (ab309346)

Immunohistochemical analysis of paraffin-embedded Human colon tissue labeling SPIB with ab309346 at 1/100 (5.31 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Nuclear staining on immune cells in human colon (PMID: 23360902).The section was incubated with ab309346 for 30 mins at room temperature.The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



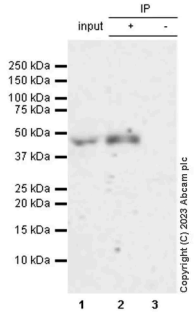
Immunocytochemistry/ Immunofluorescence - Anti-SPIB antibody [EPR26784-117] (ab309346)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized Raji (human Burkitt's lymphoma B lymphocyte) cells labelling SPIB with ab309346 at 1/50 (10.62 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 2ug/ml dilution (Green). Confocal image showing nuclear staining in Raji cell line.Negative control: Jurkat (PMID: 8691135).Image was taken with a confocal microscope(Leica-Microsystems, TCS SP8). is observed. ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 2.5ug/ml dilution (Red). The Nuclear counterstain was DAPI (Blue). Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2ug/ml dilution.



Flow Cytometry (Intracellular) - Anti-SPIB antibody [EPR26784-117] (ab309346)

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized Jurkat (human T cell leukemia T lymphocyte from peripheral blood, Left) / Raji (human Burkitt's lymphoma B lymphocyte, Right) cells labelling SPIB with ab309346 at 1/50 dilution (1 ug)/Red (Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody. Negative control: Jurkat (PMID: 8691135, 11841448).



Immunoprecipitation - Anti-SPIB antibody [EPR26784-117] (ab309346)

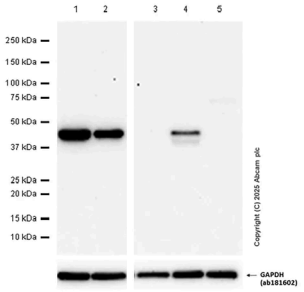
SPIB was immunoprecipitated from 0.35 mg Raji (human Burkitt's lymphoma B lymphocyte) whole cell lysate with ab309346 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab309346 at 1/1000 dilution. VeriBlot for IP secondary antibody(HRP)(ab131366) was used at 1/5000 dilution. Lane 1: Raji (human Burkitt's lymphoma B lymphocyte) whole cell lysate Lane 2: ab309346 IP in Raji (human Burkitt's lymphoma B lymphocyte) whole cell lysate Lane 3:Rabbit monoclonal IgG (ab172730) instead of ab309346 in Raji whole cell lysate Blocking and dilution buffer and concentration: 5% NFDM/TBST. Exposure time: 180 seconds
All lanes:
Immunoprecipitation - Anti-SPIB antibody [EPR26784-117] (ab309346) at 1/30 dilution

All lanes:
Raji (human Burkitt's lymphoma B lymphocyte) whole cell lysate

Secondary

All lanes:
Immunoprecipitation - VeriBlot for IP Detection Reagent (HRP) (ab131366) at 1/5000 dilution

Exposure time: 180s



Western blot - Anti-SPIB antibody [EPR26784-117] (ab309346)

In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/1000 dilution.

We recommend optimizing the protocol to enhance signal intensity by increasing protein loading (30-50 µg/lane), reducing primary antibody dilution (1:500), and utilizing femtogram-level ECL substrates.

All lanes:
Western blot - Anti-SPIB antibody [EPR26784-117] (ab309346) at 1/1000 dilution

Lane 1:
Raji (human Burkitts lymphoma B lymphocyte) whole cell lysate at 20 µg

Lane 2:
Daudi (human Burkitts lymphoma lymphoblast) whole cell lysate at 20 µg

Lane 3:
Human colon tissue lysate at 20 µg

Lane 4:
Human tonsil tissue lysate at 20 µg

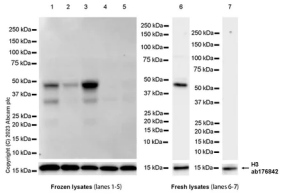
Lane 5:
Human spleen tissue lysate at 20 µg

Secondary

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

Observed band size: 46 kDa

Exposure time: 180s



Western blot - Anti-SPIB antibody [EPR26784-117] (ab309346)

Blocking and diluting buffer and concentration: 5% NFDM/TBST.
Negative control: Jurkat (PMID: 8691135, 11841448), HEK-293.

The expression profile/ molecular weight observed is consistent with what has been described in the literature (PMID: 8691135).

In lanes 1-5, the lysates were stored at -80☒ prior to Western Blotting. The bands beneath the target band (46 kDa) are likely to be degradation products. In lanes 6-7, the lysates were freshly made and used for Western Blotting immediately to minimize protein degradation.

This blot was developed using a high sensitivity ECL substrate. The high-sensitivity ECL substrate used allows for the detection of proteins in the mid-femtogram range.

In Western blot, anti- H3 antibody (ab176842) loading control staining at 1/100000 dilution.

Exposure time:

Lanes 1-5: 48 seconds

Lanes 6-7: 26 seconds

All lanes:
Western blot - Anti-SPIB antibody [EPR26784-117] (ab309346) at 1/1000 dilution

Lane 1:
Daudi (human Burkitts lymphoma lymphoblast) whole cell lysate at 20 µg

Lane 2:
HDLM-2 (human Hodgkin lymphoma) whole cell lysate at 20 µg

Lane 3:
Raji (human Burkitts lymphoma B lymphocyte) whole cell lysate at 20 µg

Lane 4:
Jurkat (human T cell leukemia T lymphocyte) whole cell lysate at 20 µg

Lane 5:
HEK-293 (human embryonic kidney epithelial cell) whole cell lysate at 20 µg

Lane 6:
Raji whole cell lysate at 20 µg

Lane 7:
Jurkat whole cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Developed using the ECL technique.

Observed band size: 46 kDa

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