abcam

ab181972

Anti-SLBP antibody [EPR12673]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	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	EPR12673
Purification technique	Affinity purification Protein A
Concentration	0.161 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	1/20
Notes	For unpurified use at 1/50

WB

Tested

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

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/20
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody. For unpurified use at 1/30

Target data

See full target information SLBP

Function

RNA-binding protein involved in the histone pre-mRNA processing (PubMed:12588979, PubMed:19155325, PubMed:8957003, PubMed:9049306). Binds the stem-loop structure of replication-dependent histone pre-mRNAs and contributes to efficient 3'-end processing by stabilizing the complex between histone pre-mRNA and U7 small nuclear ribonucleoprotein (snRNP), via the histone downstream element (HDE) (PubMed:12588979, PubMed:19155325, PubMed:8957003, PubMed:9049306). Plays an important role in targeting mature histone mRNA from the nucleus to the cytoplasm and to the translation machinery (PubMed:12588979, PubMed:19155325, PubMed:8957003, PubMed:9049306). Stabilizes mature histone mRNA and could be involved in cell-cycle regulation of histone gene expression (PubMed:12588979, PubMed:19155325, PubMed:8957003, PubMed:9049306). Involved in the mechanism by which growing oocytes accumulate histone proteins that support early embryogenesis (By similarity). Binds to the 5' side of the stem-loop structure of histone pre-mRNAs (By similarity).

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	Stem-loop binding protein (SLBP) also known as histone stem-loop binding protein is critical in the processing and regulation of histone mRNA. SLBP is a 31 kDa protein and it is found in the nucleus where it facilitates histone mRNA processing specifically the maturation and stabilization of histone pre-mRNA. This protein binds to the stem-loop structure found at the 3’ end of replication-dependent histone mRNA which is essential for proper histone production during the S phase of the cell cycle.
Biological function summary	Stem-loop binding protein interacts with histone pre-mRNA processing machinery. It is not part of any large complex but plays an important role in association with the 3' end processing mechanism. By binding the stem-loop structure SLBP participates in ensuring the stability of histone mRNA ultimately influencing histone protein synthesis. The regulation of these mRNAs is important for DNA packaging and chromosome stability which are critical processes for normal cell function and division.
Pathways	SLBP is involved in the histone mRNA processing pathway which is pivotal for eukaryotic cell replication. This pathway includes notable participants like the U7 small nuclear ribonucleoprotein (snRNP). SLBP influences the balance of histone proteins in relation to DNA synthesis. The correct function in this pathway

	maintains the balance between DNA replication and nucleosome assembly which is related to the cell cycle and genome integrity maintenance.
Associated diseases and disorders	Irregularities in SLBP function or expression link to certain cancers such as breast cancer where abnormal histone mRNA processing can occur. It is also associated with developmental disorders due to its role in cell division and DNA replication. In cases of cancer SLBP interacts with proteins like the p53 pathway where disruptions can lead to uncontrolled cell proliferation and tumor growth.

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

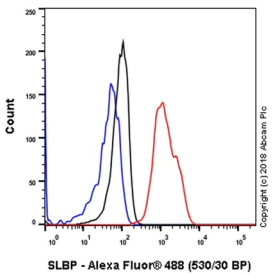
We do not recommend this combination. It is not covered by our product promise.

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.

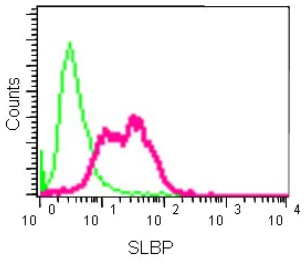
6 product images



Flow Cytometry (Intracellular) - Anti-SLBP antibody [EPR12673] (ab181972)

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

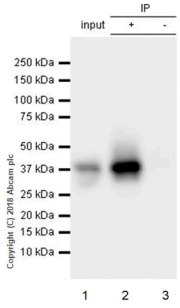
Intracellular Flow Cytometry analysis of MCF7 (Human breast adenocarcinoma epithelial cell) cells labeling SLBP with Purified ab181972 at 1/20 dilution (10µg/ml) (red). Cells were fixed with 4% Paraformaldehyde. A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Flow Cytometry (Intracellular) - Anti-SLBP antibody [EPR12673] (ab181972)

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

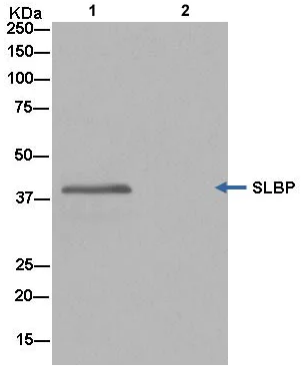
Intracellular flow cytometric analysis of2% paraformaldehyde-fixed Jurkat cells labeling SLBP with ab181972 at 1/30 dilution (red) compared to aRabbit monoclonal IgG Isotype control (greeen), followed byGoat anti rabbit IgG (FITC) secondary antibody at 1/150 dilution.



Immunoprecipitation - Anti-SLBP antibody [EPR12673] (ab181972)

ab181972 (purified) at 1:20 dilution (1µg) immunoprecipitating SLBP in 293T whole cell lysate.
Lane 1 (input): 293T (Human embryonic kidney epithelial cell) whole cell lysate 10µg
Lane 2 (+): ab181972 & 293T whole cell lysate
Lane 3 (-): Rabbit monoclonal IgG (ab172730) instead of ab181972 in 293T whole cell lysate
For western blotting, VeriBlot for IP Detection Reagent (HRP) (ab131366) was used for detection at 1:1000 dilution.
Blocking and diluting buffer: 5% NFDM/TBST.
All lanes:
Immunoprecipitation - Anti-SLBP antibody [EPR12673] (ab181972)

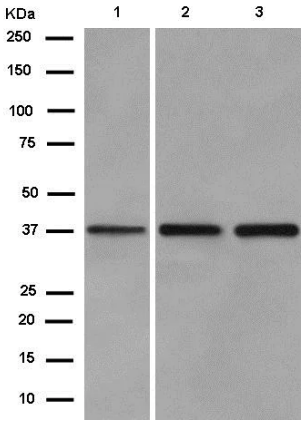
Predicted band size: 31 kDa



Immunoprecipitation - Anti-SLBP antibody [EPR12673] (ab181972)

Western blot analysis of Jurkat cell lysate immunoprecipitated with ab181972 at 1/50 dilution (Lane 1). Lane 2: Negative control. Anti-Rabbit IgG (HRP) secondary antibody, specific to the non-reduced form of IgG used at 1/1500 dilution.
All lanes:
Immunoprecipitation - Anti-SLBP antibody [EPR12673] (ab181972)

Predicted band size: 31 kDa



Western blot - Anti-SLBP antibody [EPR12673] (ab181972)

All lanes:
Western blot - Anti-SLBP antibody [EPR12673] (ab181972) at 1/5000 dilution

Lane 1:
HeLa cell lysate at 20 µg

Lane 2:
293T cell lysate at 20 µg

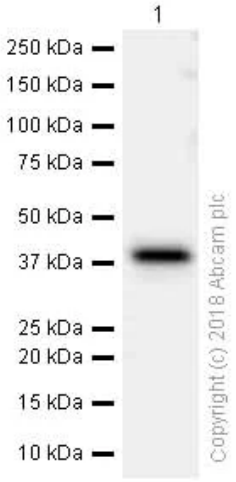
Lane 3:
Jurkat cell lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugate at 1/1000 dilution

Predicted band size: 31 kDa

Observed band size: 40 kDa



Western blot - Anti-SLBP antibody [EPR12673] (ab181972)

All lanes:
Western blot - Anti-SLBP antibody [EPR12673] (ab181972) at 1/5000 dilution

All lanes:
293T (Human embryonic kidney epithelial cell) whole cell lysates at 15 µg

Secondary

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

Predicted band size: 31 kDa

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