abcam

ab238997

Anti-SLBP antibody [EPR12673] - 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	EPR12673
Purification technique	Affinity purification Protein A
Concentration	0.982 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	-
Notes	-

WB

Expected

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

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

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	Blue Ice
Appropriate short-term storage conditions	+4°C

Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab238997 is the carrier-free version of ab181972.

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	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

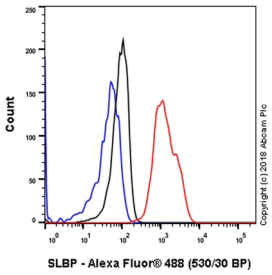
We do not recommend this combination. It is not covered by our product promise.

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.

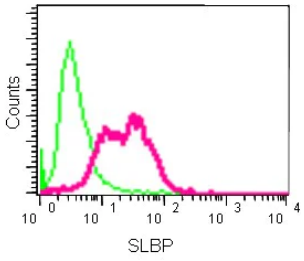
4 product images



Flow Cytometry (Intracellular) - Anti-SLBP antibody [EPR12673] - BSA and Azide free (ab238997)

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

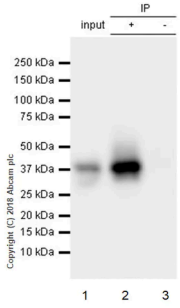
Intracellular Flow Cytometry analysis of MCF7 (Human breast adenocarcinoma epithelial cell) cells labeling SLBP with Purified ab181972 at 1/20 dilution (10 µg/ml) (red). Cells were fixed with 4% Paraformaldehyde. A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab181972).



Flow Cytometry (Intracellular) - Anti-SLBP antibody [EPR12673] - BSA and Azide free (ab238997)

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

Intracellular flow cytometric analysis of 2% paraformaldehyde-fixed Jurkat cells labeling SLBP with ab181972 at 1/30 dilution (red) compared to a Rabbit monoclonal IgG Isotype control (greeen), followed by Goat anti rabbit IgG (FITC) secondary antibody at 1/150 dilution.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab181972).

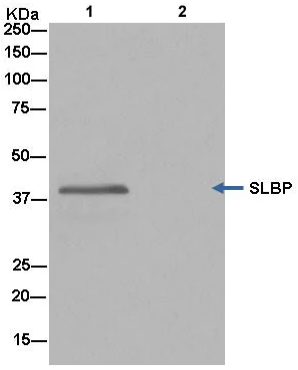


Immunoprecipitation - Anti-SLBP antibody [EPR12673] - BSA and Azide free (ab238997)

ab181972 (purified) at 1:20 dilution (1µ) immunoprecipitating SLBP in 293T whole cell lysate.
Lane 1 (input): 293T (Human embryonic kidney epithelial cell) whole cell lysate 10µ
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.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab181972).

All lanes:
Immunoprecipitation - Anti-SLBP antibody [EPR12673] (ab181972)

Predicted band size: 31 kDa



Immunoprecipitation - Anti-SLBP antibody [EPR12673] - BSA and Azide free (ab238997)

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.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab181972).

All lanes:
Immunoprecipitation - Anti-SLBP antibody [EPR12673] (ab181972)

Predicted band size: 31 kDa

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