abcam

Product datasheet

Anti-SLBP antibody [EPR12673] ab181972

Recombinant RabMAb

1 References 7 Images

Overview

Product name	Anti-SLBP antibody [EPR12673]
Description	Rabbit monoclonal [EPR12673] to SLBP
Host species	Rabbit
Tested applications	**Suitable for:** Flow Cyt (Intra), WB, IP
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HeLa, 293T and Jurkat whole cell lysate (**ab7899**); HeLa cells; Flow Cyt (intra): MCF7 and Jurkat cells. IP: 293T
General notes	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 production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.01% Sodium azide Constituents: 40% Glycerol, PBS, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR12673
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab181972 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		1/20. **ab172730** - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody. For unpurified use at 1/30
WB		1/1000 - 1/10000. Detects a band of approximately 40 kDa (predicted molecular weight: 31 kDa).
IP		1/20. For unpurified use at 1/50

Target

Function RNA-binding protein involved in the histone pre-mRNA processing. 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). Plays an important role in targeting mature histone mRNA from the nucleus to the cytoplasm and to the translation machinery. Stabilizes mature histone mRNA and could be involved in cell-cycle regulation of histone gene expression. Involved in the mechanism by which growing oocytes accumulate histone proteins that support early embryogenesis. Binds to the 5' side of the stem-loop structure of histone pre-mRNAs.

Tissue specificity Widely expressed.

Sequence similarities Belongs to the SLBP family.

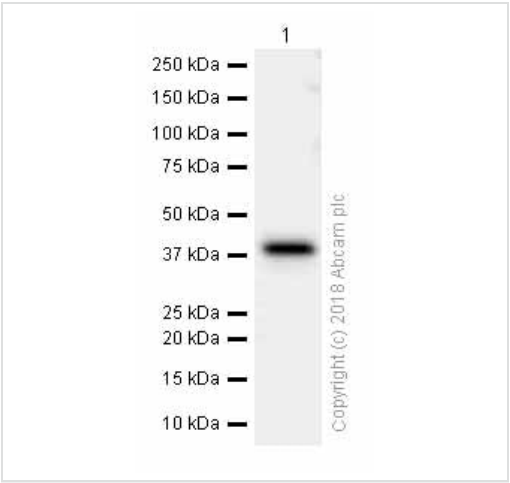
Developmental stage Regulated during the cell cycle: protein levels increase 10 to 20 fold in the late G1 and decrease at the S/G2 border.

Domain Amino acids 31-34, 96-99 and 241-244 are necessary for interaction with the Importin alpha/Importin beta receptor. The first 18 amino acids, amino acids 69-76 and 179-182 are necessary for interaction with TNPO3. Amino acids 31-34, 96-99 and 241-244 are necessary for nuclear localization.

Post-translational modifications Phosphorylated on Thr-61 and Thr-62 in the S-phase. Phosphorylation of Thr-62 by CDK1 primes phosphorylation of Thr-61 by CK2. Phosphorylation of Thr-62 is required for its degradation by the proteasome at the end of the S phase. Its degradation is not required for histone mRNA degradation at the end of the S phase. All the phosphorylated forms detected are present in the cytoplasm. Both unphosphorylated and phosphorylated forms bind the stem-loop structure of histone mRNAs.

Cellular localization Cytoplasm. Nucleus. Polyribosome-associated. Localizes predominantly in the nucleus at the G1/G2 phases and the beginning of S phase. Through the S phase, partially redistributes to the cytoplasm. Binding to histone mRNA is necessary for cytoplasmic localization. Shuttles between the nucleus and the cytoplasm. Imported in the nucleus by the Importin alpha/Importin beta receptor.

Images



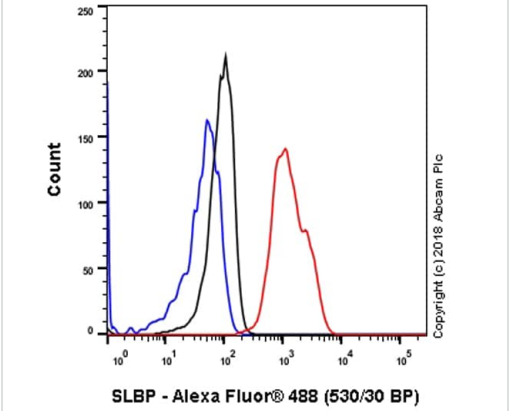
Western blot - Anti-SLBP antibody [EPR12673] (ab181972)

Anti-SLBP antibody [EPR12673] (ab181972) at 1/5000 dilution + 293T (Human embryonic kidney epithelial cell) whole cell lysates at 15 µg

Secondary

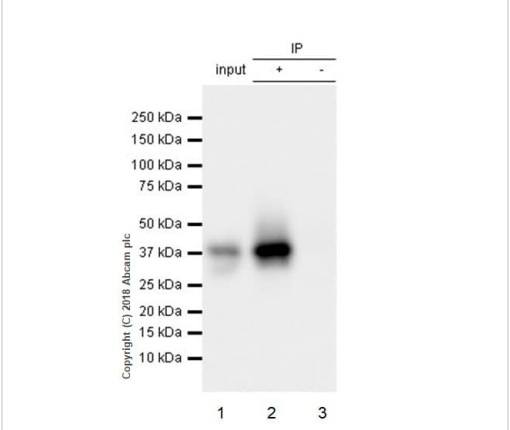
Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

Predicted band size: 31 kDa



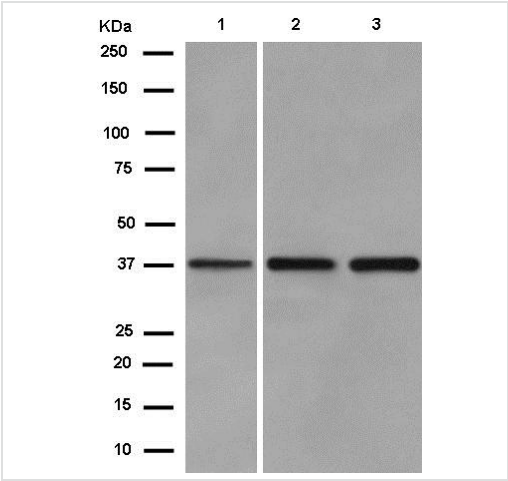
Flow Cytometry (Intracellular) - Anti-SLBP antibody [EPR12673] (ab181972)

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).



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.



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

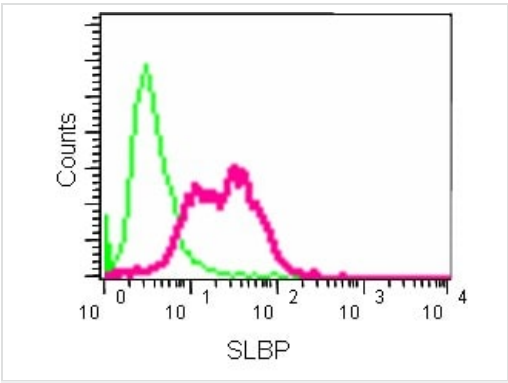
All lanes : Anti-SLBP antibody [EPR12673] (ab181972) at 1/5000 dilution

Lane 1 : HeLa cell lysate
Lane 2 : 293T cell lysate
Lane 3 : Jurkat cell lysate

Lysates/proteins at 20 µg per lane.

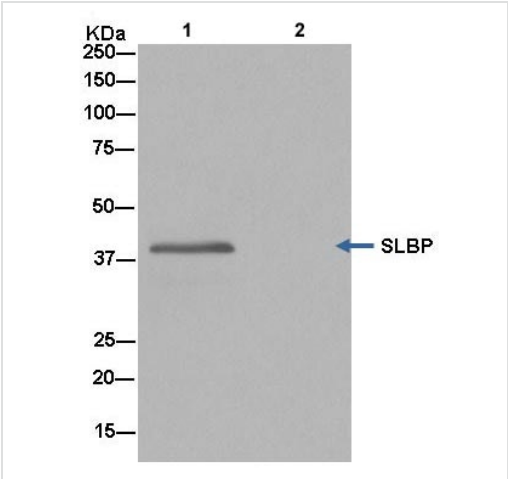
Secondary
All lanes : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugate at 1/1000 dilution

Predicted band size: 31 kDa
Observed band size: 40 kDa



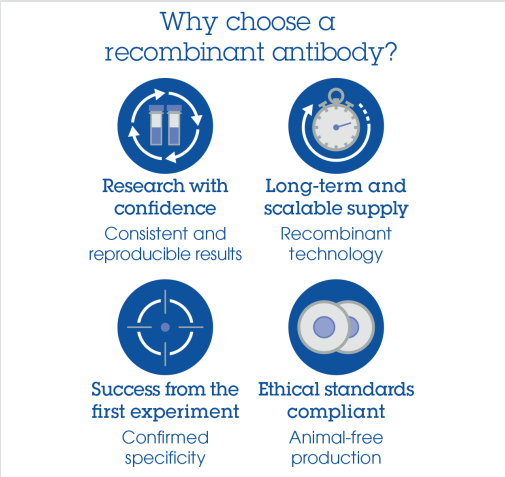
Flow Cytometry (Intracellular) - Anti-SLBP antibody [EPR12673] (ab181972)

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)

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.



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