abcam

ab248307

Anti-SSRP1 antibody [EPR7894] - 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	EPR7894
Purification technique	Affinity purification
Dissociation constant	1.87 x 10^{-11} M

Reactivity data

IP

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information SSRP1

Function

Component of the FACT complex, a general chromatin factor that acts to reorganize nucleosomes. The FACT complex is involved in multiple processes that require DNA as a template such as mRNA elongation, DNA replication and DNA repair. During transcription elongation the FACT complex acts as a histone chaperone that both destabilizes and restores nucleosomal structure. It facilitates the passage of RNA polymerase II and transcription by promoting the dissociation of one histone H2A-H2B dimer from the nucleosome, then subsequently promotes the reestablishment of the nucleosome following the passage of RNA polymerase II. The FACT complex is probably also involved in phosphorylation of 'Ser-392' of p53/TP53 via its association with CK2 (casein kinase II). Binds specifically to double-stranded DNA and at low levels to DNA modified by the antitumor agent cisplatin. May potentiate cisplatin-induced cell death by blocking replication and repair of modified DNA. Also acts as a transcriptional coactivator for p63/TP63.

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

ab248307 is the carrier-free version of ab129109.

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	SSRP1 also known as Structure-Specific Recognition Protein 1 has an important role in DNA-related processes. This protein with a molecular weight of about 80 kDa binds DNA to regulate its structure during transcription and replication. SSRP1 localizes in the nucleus and expresses widely across various tissues indicating its broad functional significance. SSRP1 often pairs with SPT16 to form the FACT (Facilitates Chromatin Transcription) complex which aids in nucleosome disassembly and reassembly.
Biological function summary	SSRP1 is integral to processes involving chromatin reorganization and transcriptional regulation. It operates as a component of the FACT complex facilitating the modification of chromatin structure enabling access to the underlying DNA for active transcription. By altering nucleosome structure it assists RNA polymerase II in transcribing through chromatin directly influencing gene expression regulation.
Pathways	SSRP1 participates actively in DNA transcription and repair mechanisms. It is an essential player in the transcription elongation pathway interacting with RNA polymerase II. Additionally it influences the DNA repair pathways working in concert with proteins such as SPT16 and histones to maintain genomic stability. Its function ensures efficient transcription and protection against DNA damage.
Associated diseases and disorders	SSRP1 connections emerge in the context of cancer and Alzheimer's disease. In cancer SSRP1 expression levels can correlate with tumor progression influencing the behavior of cancer cells through its role in transcriptional regulation. In Alzheimer's alterations in chromatin structure involving SSRP1 may link to disease progression. The activity of SSRP1 interacts with proteins such as p53 in cancer highlighting its role in disease mechanisms and potential as a therapeutic target.

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.

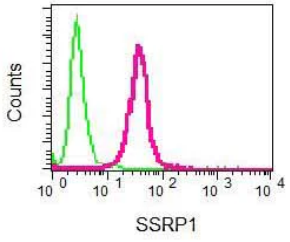
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

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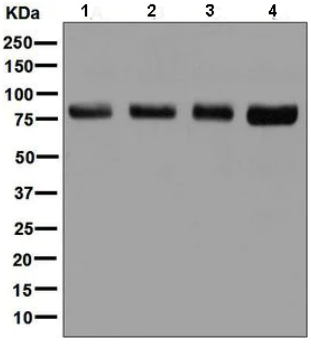
3 product images



Flow Cytometry (Intracellular) - Anti-SSRP1 antibody [EPR7894] - BSA and Azide free (ab248307)

SSRP1 Flow Cytometry (Intracellular) staining using rabbit Anti-SSRP1 antibody

This data was developed using ab129109, the same antibody clone in a different buffer formulation.
ab129109, at 1/100 dilution, staining SSRP1 in permeabilized MOLT4 cells by intracellular flow cytometry (red) or Rabbit IgG negative control (green).



Western blot - Anti-SSRP1 antibody [EPR7894] - BSA and Azide free (ab248307)

SSRP1 Western blot staining using rabbit Anti-SSRP1 antibody

This data was developed using ab129109, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-SSRP1 antibody [EPR7894] - BSA and Azide free (ab248307) at 1/10000 dilution

Lane 1:
K562 cell lysate at 10 µg

Lane 2:
HeLa cell lysate at 10 µg

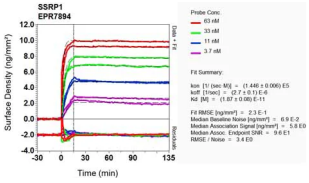
Lane 3:
MOLT4 cell lysate at 10 µg

Lane 4:
293T (Human embryonic kidney epithelial cell) cell lysate at 10 µg

Secondary

All lanes:
Goat anti-Rabbit HRP at 1/2000 dilution

Predicted band size: 81 kDa



OI-RD Scanning - Anti-SSRP1 antibody [EPR7894] - BSA and Azide free (ab248307)

We have systematically measured KD (the equilibrium dissociation constant between the antibody and its antigen), of more than 840 recombinant antibodies to assess not only their individual KD values but also to see the average affinity of antibody. Based on the comparison with published literature values for mouse monoclonal antibodies, Recombinant antibodies appear to be on average 1-2 order of magnitude higher affinity.

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