abcam

ab248306

Anti-SF2 antibody [EPR8239] - 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	EPR8239
Purification technique	Affinity purification Protein A
Dissociation constant	8 x 10^{-12} M
Concentration	1.069 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Mouse, Rat, Human
Dilution info	-

Notes	-

WB

Tested

Species	Mouse, Human
Dilution info	-
Notes	-

Expected

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

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information SRSF1

Function Plays a role in preventing exon skipping, ensuring the accuracy of splicing and regulating alternative splicing. Interacts with other spliceosomal components, via the RS domains, to form a bridge between the 5'- and 3'-splice site binding components, U1 snRNP and U2AF. Can stimulate binding of U1 snRNP to a 5'-splice site-containing pre-mRNA. Binds to purine-rich RNA sequences, either the octamer, 5'-RGAAGAAC-3' (r=A or G) or the decamers, AGGACAGAGC/AGGACGAAGC. Binds preferentially to the 5'-CGAGGCG-3' motif in vitro. Three copies of the octamer constitute a powerful splicing enhancer in vitro, the ASF/SF2 splicing enhancer (ASE) which can specifically activate ASE-dependent splicing. Isoform ASF-2 and isoform ASF-3 act as splicing repressors. May function as export adapter involved in mRNA nuclear export through the TAP/NXF1 pathway.

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

ab248306 is the carrier-free version of ab129108.

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	SF2 also known as Splicing Factor 2 or Alternative Splicing Factor 1 (ASF1) is a prototypical member of the SR protein family involved in mRNA splicing. It is approximately 33 kDa in mass. SF2 is expressed ubiquitously in the nucleus of eukaryotic cells where it plays a central role in the regulation of constitutive and alternative splicing processes.
Biological function summary	SF2 acts as an important regulator of gene expression by facilitating the splicing of pre-mRNA participating in spliceosome assembly. It interacts with other splicing factors and RNA to form spliceosomal complexes essential for splicing fidelity and efficiency. The precise modulation of splicing by SF2 allows for the generation of diverse protein isoforms from a single gene contributing to protein diversity within the cell.
Pathways	SF2 integrates into the RNA splicing pathway and is critical for splice site selection. It interacts with proteins such as U1 snRNP and U2AF65 influencing their binding to pre-mRNA. SF2 also plays roles in other key pathways like mRNA transport and translation thereby linking the splicing machinery with nuclear export and protein synthesis processes.
Associated diseases and disorders	Abnormalities in SF2 levels or functions have been linked to various cancers and spinal muscular atrophy (SMA). Cancer cells often show altered SF2 expression leading to splicing anomalies that promote tumorigenesis. Additionally SF2's interaction with proteins like hnRNP A1 influences disease mechanisms as splicing factor dysregulation can disrupt normal cellular processes and facilitate the progression of disorders such as SMA.

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

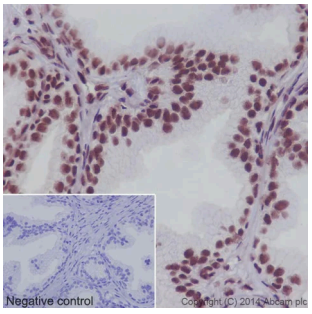
We do not recommend this combination. It is not covered by our product promise.

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.

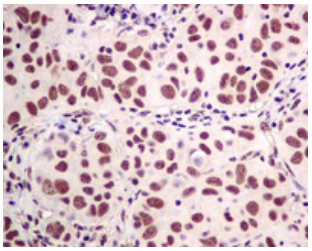
9 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SF2 antibody [EPR8239] - BSA and Azide free (ab248306)

SF2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-SF2 antibody

This data was developed using ab129108, the same antibody clone in a different buffer formulation.
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human prostatic hyperplasia tissue labelling SF2 with purified ab129108 at 1/800. Heat mediated antigen retrieval was performed using Tris/EDTA buffer, pH 9. ab97051, a HRP-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody (1/500). Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.

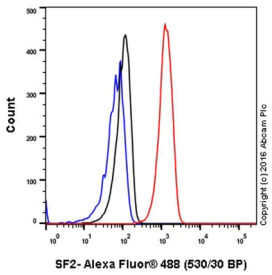


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SF2 antibody [EPR8239] - BSA and Azide free (ab248306)

SF2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-SF2 antibody

This data was developed using ab129108, the same antibody clone in a different buffer formulation.
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human breast carcinoma tissue labelling SF2 with unpurified ab129108 at 1/100.

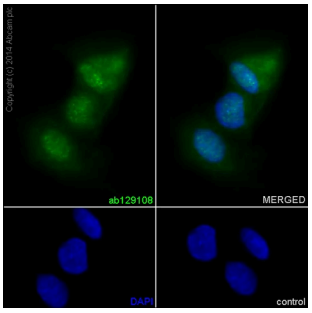
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-SF2 antibody [EPR8239] - BSA and Azide free (ab248306)

SF2 Flow Cytometry (Intracellular) staining using rabbit Anti-SF2 antibody

This data was developed using ab129108, the same antibody clone in a different buffer formulation.
Intracellular Flow Cytometry analysis of HeLa cells labelling SF2 with purified ab129108 at a dilution of 1/70 (red). Cells were fixed with 4% paraformaldehyde and permeabilized with 90% methanol. An Alexa Flour® 488-conjugated goat anti-rabbit IgG (1/2000) was used as the secondary antibody. Black - Isotype control, rabbit monoclonal IgG. Blue - Unlabelled control, cells without incubation with primary and secondary antibodies.

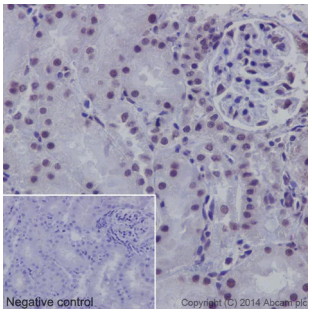


Immunocytochemistry/ Immunofluorescence - Anti-SF2 antibody [EPR8239] - BSA and Azide free (ab248306)

SF2 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-SF2 antibody

This data was developed using ab129108, the same antibody clone in a different buffer formulation.
Immunocytochemistry/Immunofluorescence analysis of HeLa cells labelling SF2 with purified ab129108 at 1/150. Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. ab150077, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/500) was used as the secondary antibody. Counterstained with DAPI.

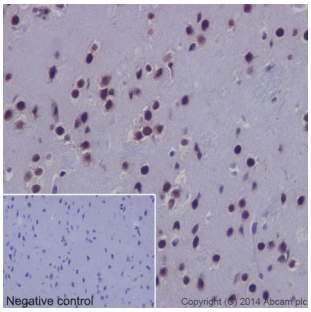
Control - primary antibody (1/150), secondary antibody ab150120 an Alexa Fluor® 594-conjugate goat anti-mouse IgG (1/500).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SF2 antibody [EPR8239] - BSA and Azide free (ab248306)

SF2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-SF2 antibody

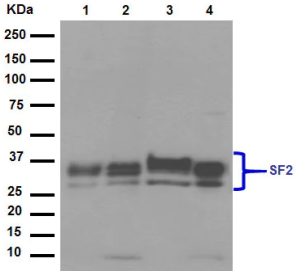
This data was developed using ab129108, the same antibody clone in a different buffer formulation.
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of rat kidney tissue labelling SF2 with purified ab129108 at 1/800. Heat mediated antigen retrieval was performed using Tris/EDTA buffer, pH 9. ab97051, a HRP-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody (1/500). Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SF2 antibody [EPR8239] - BSA and Azide free (ab248306)

SF2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-SF2 antibody

This data was developed using ab129108, the same antibody clone in a different buffer formulation.
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse cerebral cortex tissue labelling SF2 with purified ab129108 at 1/800. Heat mediated antigen retrieval was performed using Tris/EDTA buffer, pH 9. ab97051, a HRP-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody (1/500). Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.



Western blot - Anti-SF2 antibody [EPR8239] - BSA and Azide free (ab248306)

SF2 Western blot staining using rabbit Anti-SF2 antibody

This data was developed using ab129108, the same antibody clone in a different buffer formulation.
Blocking and dilution buffer: 5% NFDM/TBST.

All lanes:
Western blot - Anti-SF2 antibody [EPR8239] (ab129108) at 1/10000 dilution

Lane 1:
HepG2 cell lysate at 20 µg

Lane 2:
Raji cell lysate at 20 µg

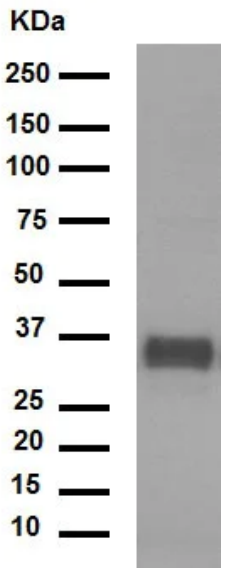
Lane 3:
HeLa cell lysate at 20 µg

Lane 4:
293T cell lysate at 20 µg

Secondary

All lanes:
Peroxidase conjugated goat anti-rabbit IgG (H+L) at 1/1000 dilution

Predicted band size: 28 kDa



Western blot - Anti-SF2 antibody [EPR8239] - BSA and Azide free (ab248306)

SF2 Western blot staining of Mouse spleen tissue using rabbit Anti-SF2 antibody

This data was developed using ab129108, the same antibody clone in a different buffer formulation.
Blocking and dilution buffer: 5% NFDM/TBST.

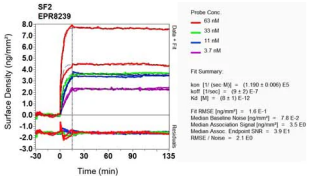
All lanes:
Western blot - Anti-SF2 antibody [EPR8239] (ab129108) at 1/10000 dilution

All lanes:
Mouse spleen tissue at 20 µg

Secondary

All lanes:
Peroxidase-conjugated goat anti-rabbit IgG (H+L) at 1/1000 dilution

Predicted band size: 28 kDa



OI-RD Scanning - Anti-SF2 antibody [EPR8239] - BSA and Azide free (ab248306)

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'.