abcam

ab133689

Anti-SF2 antibody [EPR8240]

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 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	EPR8240
Purification technique	Affinity purification Protein A
Dissociation constant	5.7×10^{-11} M
Concentration	0.447 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	1/50 - 1/100
Notes	

Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IP

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

WB

Tested

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

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

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

ICC/IF

Tested

Species	Human

Dilution info	1/50 - 1/100
Notes	-

Expected

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

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/40
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	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	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

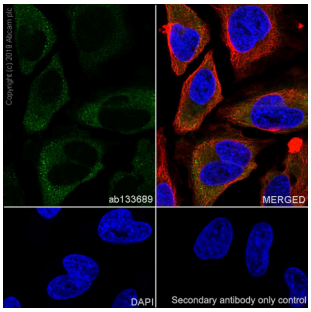
We do not recommend this combination. It is not covered by our product promise.

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.

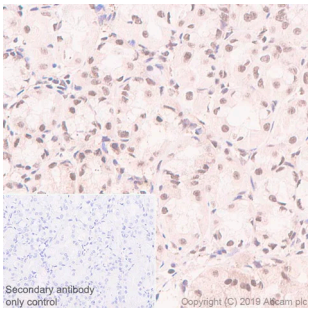
7 product images



Immunocytochemistry/ Immunofluorescence - Anti-SF2 antibody [EPR8240] (ab133689)

SF2 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-SF2 antibody

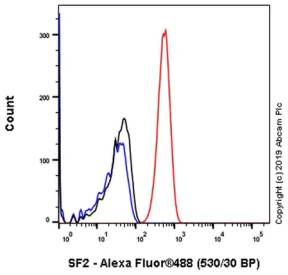
Immunocytochemistry/ Immunofluorescence analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling SF2 with purified ab133689 at 1/50 dilution (8.3 µg/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) was used as the secondary antibody at 1/1000 (2 µg/ml) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SF2 antibody [EPR8240] (ab133689)

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

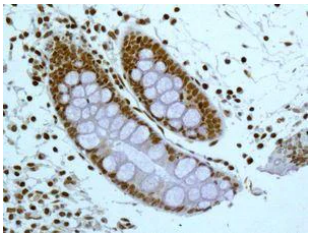
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human stomach tissue sections labeling SF2 with Purified ab133689 at 1/100 dilution (4.16 µg/ml). Heat mediated antigen retrieval was performed using Citrate buffer, pH 6.0. ImmunoHistoProbe one step HRP Polymer (ready to use) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Flow Cytometry (Intracellular) - Anti-SF2 antibody [EPR8240] (ab133689)

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

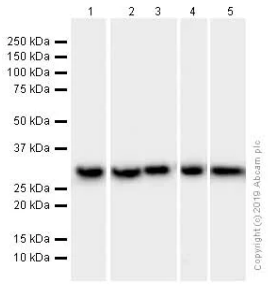
Intracellular Flow Cytometry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling SF2 with purified ab133689 at 1/40 dilution (10µg/ml) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluorr® 488, ab150077) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SF2 antibody [EPR8240] (ab133689)

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

Immunohistochemical analysis of paraffin-embedded Human colon tissue labelling SF2 with unpurified ab133689 at 1/50 dilution.
Heat mediated antigen retrieval was performed with citrate buffer pH 6 before commencing with IHC staining protocol.



Western blot - Anti-SF2 antibody [EPR8240] (ab133689)

All lanes:
Western blot - Anti-SF2 antibody [EPR8240] (ab133689) at 1/1000 dilution

Lane 1:
293T (Human embryonic kidney epithelial cell) whole cell lysates at 20 µg

Lane 2:
HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates at 20 µg

Lane 3:
C6 (Rat glial tumor glial cell) whole cell lysates at 20 µg

Lane 4:
RAW 264.7 (Mouse Abelson murine leukemia virus-induced tumor macrophage) whole cell lysates at 20 µg

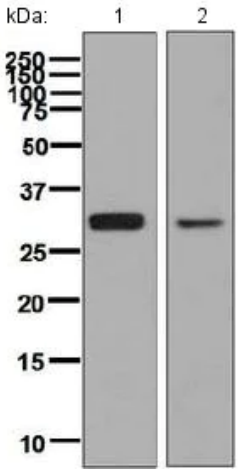
Lane 5:
K-562 (Human chronic myelogenous leukemia lymphoblast) whole cell lysates at 20 µg

Secondary

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

Predicted band size: 28 kDa

Observed band size: 27 kDa



Western blot - Anti-SF2 antibody [EPR8240] (ab133689)

All lanes:
Western blot - Anti-SF2 antibody [EPR8240] (ab133689) at 1/1000 dilution

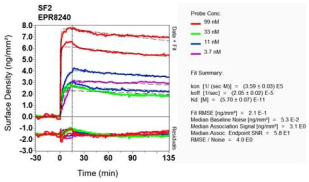
Lane 1:
293T cell lysate at 10 µg

Lane 2:
C6 cell lysate at 10 µg

Secondary

All lanes:
HRP labelled goat anti-rabbit at 1/2000 dilution

Predicted band size: 28 kDa



OI-RD Scanning - Anti-SF2 antibody [EPR8240] (ab133689)

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'.