abcam

ab204916

Anti-SC35 antibody [EPR12238]

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	EPR12238
Purification technique	Affinity purification Protein A
Concentration	0.119 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	1/30
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/100
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/400
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/1000
Notes	-

Target data

See full target information SRSF2

Function Necessary for the splicing of pre-mRNA. It is required for formation of the earliest ATP-dependent splicing complex and interacts with spliceosomal components bound to both the 5'- and 3'-splice sites during spliceosome assembly. It also is required for ATP-dependent interactions of both U1 and U2 snRNPs with pre-

mRNA. 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. Binds to purine-rich RNA sequences, either 5'-AGSAGAGTA-3' (S=C or G) or 5'-GTTCGAGTA-3'. Can bind to beta-globin mRNA and commit it to the splicing pathway. The phosphorylated form (by SRPK2) is required for cellular apoptosis in response to cisplatin treatment.

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	SC35 also known as SRSF2 (serine/arginine-rich splicing factor 2) is an essential splicing factor with a molecular mass around 26 kDa. This protein is part of the SR protein family which are known for their roles in splicing regulation due to their serine/arginine-rich domains. SC35 predominantly localizes in the nucleus of cells

	where it accumulates in nuclear speckles areas rich in splicing factors. Biologists often use immunofluorescence techniques and anti-SC antibodies to visualize and study SC35's localization and function within cells.
Biological function summary	SC35 influences various aspects of mRNA processing particularly pre-mRNA splicing. The protein functions as a splicing enhancer by interacting with pre-mRNA at specific sites to assist exon inclusion during splicing. SC35 acts as part of the spliceosomal complex which is critical during the assembly and rearrangement of the spliceosome. Additionally it interacts with other splicing factors to ensure accurate and efficient splicing which is fundamental for gene expression and consequent protein synthesis.
Pathways	The SC35 protein participates in the RNA splicing pathway a significant process in mRNA maturation and gene expression regulation. This protein interacts with other SR proteins like SRSF1 and components of the spliceosomal machinery. SC35's function is also important in the alternative splicing pathway impacting the diversity of mRNA transcripts through the production of different exon combinations. By regulating alternative splicing SC35 helps produce protein diversity vital for numerous cellular processes.
Associated diseases and disorders	Changes in SC35 expression or function have been linked to several human conditions. Notably its dysregulation can contribute to cancer development through altered splicing patterns that impact oncogene and tumor suppressor gene expression. Furthermore SC35 abnormalities are associated with spinal muscular atrophy a neurodegenerative disorder where splicing regulation plays a significant role. In these diseases SC35 may interact with other proteins such as SMN (survival of motor neuron protein) and impact their functions highlighting its relevance in maintaining cellular health.

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

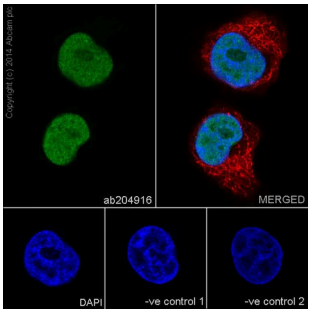
We do not recommend this combination. It is not covered by our product promise.

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.

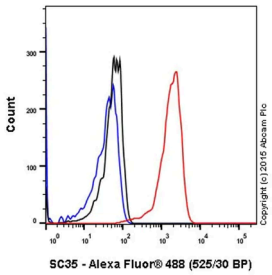
10 product images



Immunocytochemistry/ Immunofluorescence - Anti-SC35 antibody [EPR12238] (ab204916)

SC35 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-SC35 antibody

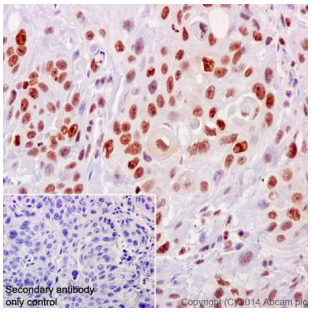
Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (Human epithelial cells from cervix adenocarcinoma) cells labeling SC35 with ab204916 at 1/100 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green). Confocal image showing nuclear staining on HeLa cell line. The nuclear counter stain is DAPI (blue). Tubulin is detected with ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution and ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/1000 dilution (red).
The negative controls are as follows:
-ve control 1: ab204916 at 1/250 dilution followed by ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/1000 dilution.
-ve control 2: ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution followed by ab150077 (Alexa Fluor®488 Goat Anti-Rabbit IgG H&L) at 1/1000 dilution.



Flow Cytometry (Intracellular) - Anti-SC35 antibody [EPR12238] (ab204916)

SC35 Flow Cytometry (Intracellular) staining using rabbit Anti-SC35 antibody

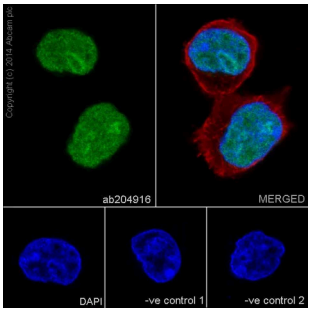
Intracellular flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized HeLa (Human cervix adenocarcinoma epithelial cell) cells labelling SC35 with ab204916 at 1/400 dilution (0.1µg)/ Red compared with a Rabbit monoclonal IgG (ab172730) / Black isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/2000 dilution was used as the secondary antibody.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SC35 antibody [EPR12238] (ab204916)

Immunohistochemical analysis of paraffin-embedded Human cervical carcinoma tissue labeling SC35 with ab204916 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Nuclear staining on Human cervical carcinoma is observed. Counter stained with Hematoxylin.
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

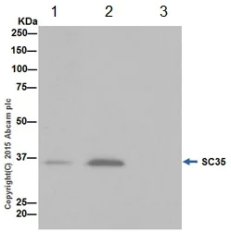
Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-SC35 antibody [EPR12238] (ab204916)

SC35 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-SC35 antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HEK-293 (Human epithelial cells from embryonic kidney) cells labeling SC35 with ab204916 at 1/100 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green). Confocal image showing nuclear staining on HEK-293 cell line. The nuclear counter stain is DAPI (blue). Tubulin is detected with ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution and ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/1000 dilution (red).
The negative controls are as follows:
-ve control 1: ab204916 at 1/250 dilution followed by ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/1000 dilution.
-ve control 2: ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution followed by ab150077 (Alexa Fluor®488 Goat Anti-Rabbit IgG H&L) at 1/1000 dilution.



Immunoprecipitation - Anti-SC35 antibody [EPR12238] (ab204916)

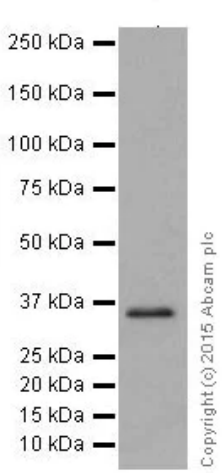
SC35 was immunoprecipitated from 1mg of HeLa (Human epithelial cells from cervix adenocarcinoma) whole cell lysate with ab204916 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab204916 at 1/1000 dilution. Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG, was used as secondary antibody at 1/1500.
Lane 1: HeLa whole cell lysate 10ug (Input). Lane 2: ab204916 IP in HeLa whole cell lysate. Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab204916 in HeLa whole cell lysate.

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 1 second.

All lanes:
Immunoprecipitation - Anti-SC35 antibody [EPR12238] (ab204916)

Predicted band size: 25 kDa



Western blot - Anti-SC35 antibody [EPR12238] (ab204916)

Blocking/Dilution buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-SC35 antibody [EPR12238] (ab204916) at 1/5000 dilution

All lanes:
Human thymus lysate at 10 µg

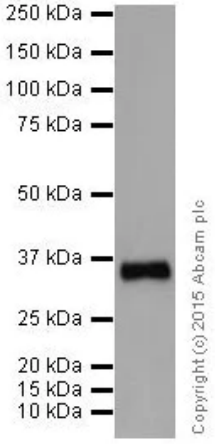
Secondary

All lanes:
Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/1000 dilution

Predicted band size: 25 kDa

Observed band size: 35 kDa

Exposure time: 5s



Western blot - Anti-SC35 antibody [EPR12238] (ab204916)

SC35 Western blot staining of HepG2 (Human liver hepatocellular carcinoma) whole cell lysate using rabbit Anti-SC35 antibody

Blocking/Dilution buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-SC35 antibody [EPR12238] (ab204916) at 1/1000 dilution

All lanes:
HepG2 (Human liver hepatocellular carcinoma) whole cell lysate at 20 µg

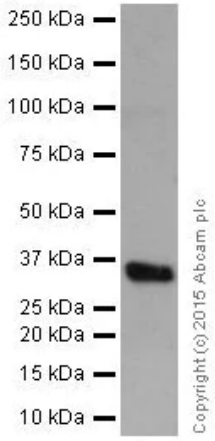
Secondary

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

Predicted band size: 25 kDa

Observed band size: 35 kDa

Exposure time: 30s



Western blot - Anti-SC35 antibody [EPR12238] (ab204916)

Blocking/Dilution buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-SC35 antibody [EPR12238] (ab204916) at 1/1000 dilution

All lanes:
Human fetal kidney lysate at 10 µg

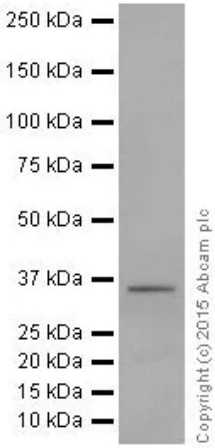
Secondary

All lanes:
Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/1000 dilution

Predicted band size: 25 kDa

Observed band size: 35 kDa

Exposure time: 30s



Western blot - Anti-SC35 antibody [EPR12238] (ab204916)

Blocking/Dilution buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-SC35 antibody [EPR12238] (ab204916) at 1/1000 dilution

All lanes:
Human fetal brain lysate at 10 µg

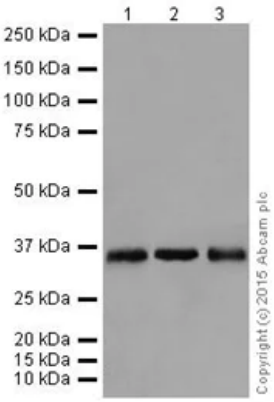
Secondary

All lanes:
Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/1000 dilution

Predicted band size: 25 kDa

Observed band size: 35 kDa

Exposure time: 3min



Western blot - Anti-SC35 antibody [EPR12238] (ab204916)

SC35 Western blot staining using rabbit Anti-SC35 antibody

Blocking/Dilution buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-SC35 antibody [EPR12238] (ab204916) at 1/1000 dilution

Lane 1:
K562 (Human chronic myelogenous leukemia cells from bone marrow) whole cell lysate at 20 µg

Lane 2:
HeLa (Human epithelial cells from cervix adenocarcinoma) whole cell lysate at 20 µg

Lane 3:
293 (Human epithelial cells from embryonic kidney) whole cell lysate at 20 µg

Secondary

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

Predicted band size: 25 kDa

Observed band size: 35 kDa

Exposure time: 10s

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