abcam

Product datasheet

Anti-SC35 antibody [SC-35] - Nuclear Speckle Marker ab11826

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Overview

Product name	Anti-SC35 antibody [SC-35] - Nuclear Speckle Marker
Description	Mouse monoclonal [SC-35] to SC35 - Nuclear Speckle Marker
Host species	Mouse
Specificity	This antibody recognizes a phospho-epitope of the non-snRNP (small nuclear ribonucleoprotein particles) factor SC35. The antibody reacts with the splicing factor SC-35 and with the SC-35-related non-snRNP factor SF2/ASF. Recent data suggests this clone may cross-react with additional proteins within the spliceosome complex (PMID: 33095160)
Tested applications	**Suitable for:** ICC/IF **Unsuitable for:** WB
Species reactivity	**Reacts with:** Mouse, Rat, Human **Predicted to work with:** Xenopus laevis, Drosophila melanogaster, Rhesus monkey, Newt
Immunogen	Other Immunogen Type. Fractioned spliceosome complex (PMID: 2137203)
Positive control	ICC/IF: MCF7, NIH3T3 and Rin-5F cells
General notes	This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact **orders@abcam.com**. The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

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 or -80°C. Avoid freeze / thaw cycle.

Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: 93% PBS, 6.97% L-Arginine
Purity	Protein G purified
Clonality	Monoclonal
Clone number	SC-35
Isotype	IgG1

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab11826 in the following tested applications.

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

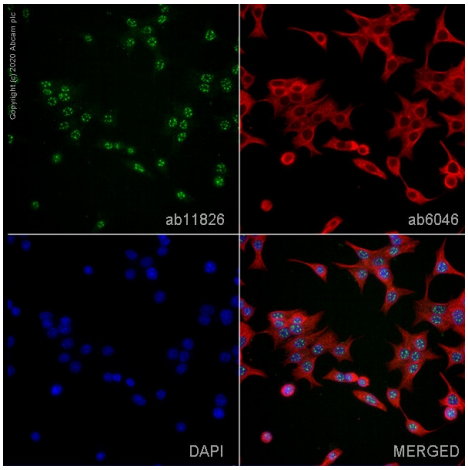
Application	Abreviews	Notes
ICC/IF	★★★★★ (8)	Use a concentration of 5 µg/ml.

Application notes Is unsuitable for WB.

Target

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.
Sequence similarities	Belongs to the splicing factor SR family. Contains 1 RRM (RNA recognition motif) domain.
Post-translational modifications	Extensively phosphorylated on serine residues in the RS domain.
Cellular localization	Nucleus.

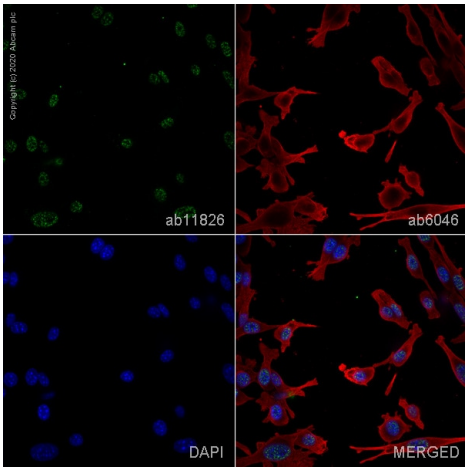
Images



Immunocytochemistry/ Immunofluorescence - Anti-SC35 antibody [SC-35] - Nuclear Speckle Marker (ab11826)

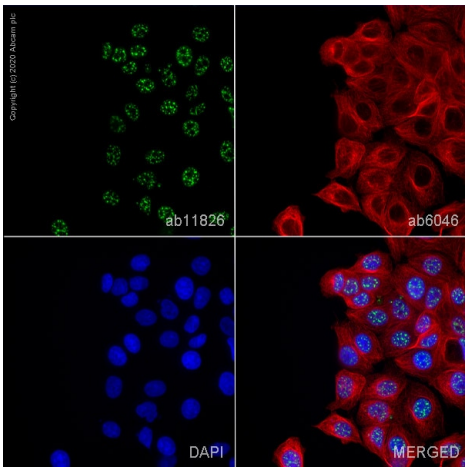
ab11826 staining SC35 - Nuclear Speckle Marker in Rin-5F cells. The cells were fixed with 100% methanol (5 min), permeabilized with 0.1% PBS-Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1%PBS-Tween for 1h. The cells were then incubated overnight at 4°C with ab11826 at 5µg/ml and **ab6046**, Rabbit polyclonal to beta Tubulin - Loading Control. Cells were then incubated with **ab150117**, Goat polyclonal Secondary Antibody to Mouse IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (shown in green) and **ab150080**, Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (Alexa Fluor® 594) at 1/1000 dilution (shown in pseudocolour red). Nuclear DNA was labelled with DAPI (shown in blue).

Also suitable in cells fixed with 4% paraformaldehyde (10 min).



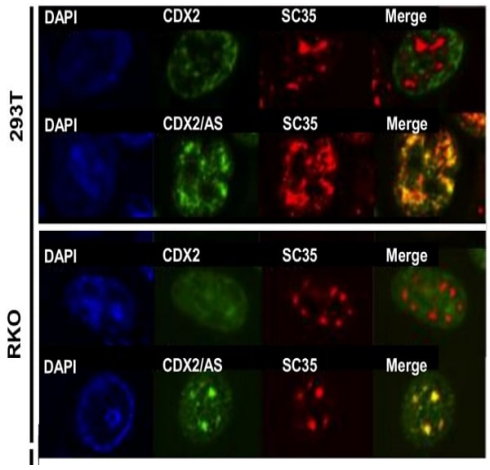
Immunocytochemistry/ Immunofluorescence - Anti-SC35 antibody [SC-35] - Nuclear Speckle Marker (ab11826)

ab11826 staining SC35 - Nuclear Speckle Marker in NIH3T3 cells. The cells were fixed with 4% paraformaldehyde (10 min), permeabilized with 0.1% PBS-Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1%PBS-Tween for 1h. The cells were then incubated overnight at 4°C with ab11826 at 5µg/ml and **ab6046**, Rabbit polyclonal to beta Tubulin - Loading Control. Cells were then incubated with **ab150117**, Goat polyclonal Secondary Antibody to Mouse IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (shown in green) and **ab150080**, Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (Alexa Fluor® 594) at 1/1000 dilution (shown in pseudocolour red). Nuclear DNA was labelled with DAPI (shown in blue).



Immunocytochemistry/ Immunofluorescence - Anti-SC35 antibody [SC-35] - Nuclear Speckle Marker (ab11826)

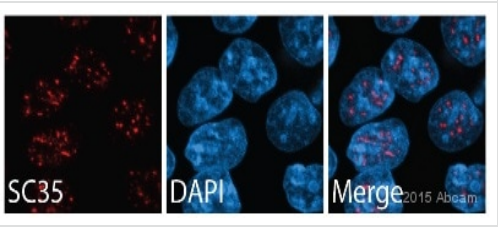
ab11826 staining SC35 - Nuclear Speckled Marker in MCF7 cells. The cells were fixed with 4% paraformaldehyde (10 min), permeabilized with 0.1% PBS-Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1%PBS-Tween for 1h. The cells were then incubated overnight at 4°C with ab11826 at 5µg/ml and **ab6046**, Rabbit polyclonal to beta Tubulin - Loading Control. Cells were then incubated with **ab150117**, Goat polyclonal Secondary Antibody to Mouse IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (shown in green) and **ab150080**, Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (Alexa Fluor® 594) at 1/1000 dilution (shown in pseudocolour red). Nuclear DNA was labelled with DAPI (shown in blue).



Immunocytochemistry/ Immunofluorescence - Anti-SC35 antibody [SC-35] - Nuclear Speckle Marker (ab11826)

Image from Witek, Matthew E. et al. PLoS ONE 9.8 (2014): e104293. doi: 10.1371/journal.pone.0104293. Fig 5. Reproduced under the Creative Commons license http://creativecommons.org/licenses/by/4.0/

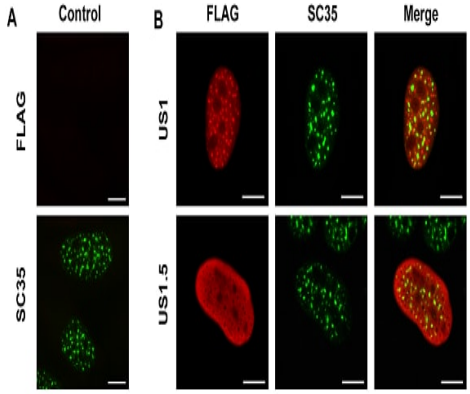
Immunocytochemistry/ Immunofluorescence analysis of HEK-293T and RKO cells transiently transfected with CDX2/AS-His and co-stained for CDX2/AS-His and SC35 (ab11826). All proteins localized to the nucleus and merged images revealed co-localization of CDX2/AS with SC35.



Immunocytochemistry/ Immunofluorescence - Anti-SC35 antibody [SC-35] - Nuclear Speckle Marker (ab11826)

This image is courtesy of an abreview submitted by Dr Sam Nowitzki, Barrow Neurological Institute.

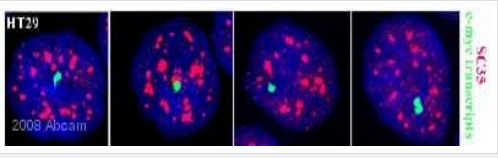
Immunocytochemistry/ Immunofluorescence analysis of HEK-293 human kidney cells labeling SC35 with ab11826 at 1/400 dilution. Cells were fixed with methanol and blocked with PBS for 1 hour at 4°C. Staining with ab11826 was carried out in PBS buffer for 2 hours at 4°C. An undiluted goat anti-mouse Alexa Fluor® 594 secondary antibody was used.



Immunocytochemistry/ Immunofluorescence - Anti-SC35 antibody [SC-35] - Nuclear Speckle Marker (ab11826)

Image from Salsman, Jayme et al. PLoS Pathogens 4.7 (2008): e1000100. doi: 10.1371/journal.ppat.1000100. Fig S4. Reproduced under the Creative Commons license http://creativecommons.org/licenses/by/4.0/

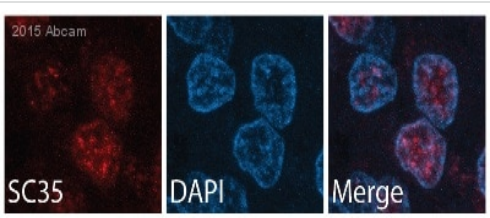
Immunocytochemistry/ Immunofluorescence analysis of untransfected U-2 OS cells (A) and cells transfected with HSV US1 or US1.5 fixed and stained for FLAG (red) and SC35 (green) to identify viral proteins and nuclear speckles respectively. Transfected cells were fixed 40 h post transfection with 3.7% formaldehyde in PBS (20 min), permeabilized with 0.5% Triton X-100 in PBS (10 min), and blocked with 4% BSA in PBS (20 min) prior to incubation with Anti-SC35 antibody [SC-35] - Nuclear Speckle Marker (ab11826) and secondary antibodies in 4% BSA in PBS. DAPI was used for visualization of nuclear DNA. Scale bar = 10 µm.



Immunocytochemistry/ Immunofluorescence - Anti-SC35 antibody [SC-35] - Nuclear Speckle Marker (ab11826)

This image is courtesy of an Abreview submitted by Dr Eva Bartova

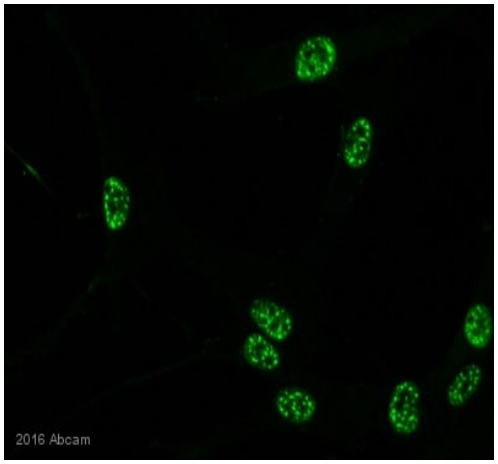
Immunocytochemistry/ Immunofluorescence analysis of human adenocarcinoma HT-29 (Human colorectal adenocarcinoma cell line) cells labeling SC35 with ab11826 at 1/200 dilution. Cells were fixed in paraformaldehyde and permeabilized with Triton X-100 and Saponin. Blocking of the cells was done with 1% BSA for 1 hour at 37°C; staining with ab11826 at 1/200 was carried out for 16 hours at 4°C in PBS buffer. An anti-mouse IgG3 (Alexa Fluor® 594) secondary antibody was used at 1/200 dilution.



Immunocytochemistry/ Immunofluorescence - Anti-SC35 antibody [SC-35] - Nuclear Speckle Marker (ab11826)

This image is courtesy of an abreview submitted by Dr Sam Nowitzki, Barrow Neurological Institute.

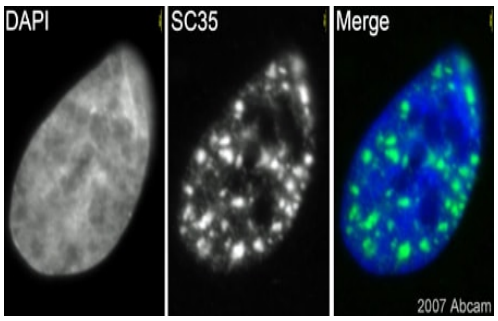
Immunocytochemistry/ Immunofluorescence analysis of human hippocampus cells labeling SC35 with ab11826 at 1/200 dilution. Cells were fixed with formaldehyde and blocked with PBS for 1 hour at 4°C. Staining with ab11826 was carried out in PBS buffer for 12 hours at 4°C. A goat anti-mouse Alexa Fluor® 594 secondary antibody was used at 1/1000 dilution.



Immunocytochemistry/ Immunofluorescence - Anti-SC35 antibody [SC-35] - Nuclear Speckle Marker (ab11826)

This image is courtesy of an anonymous Abreview.

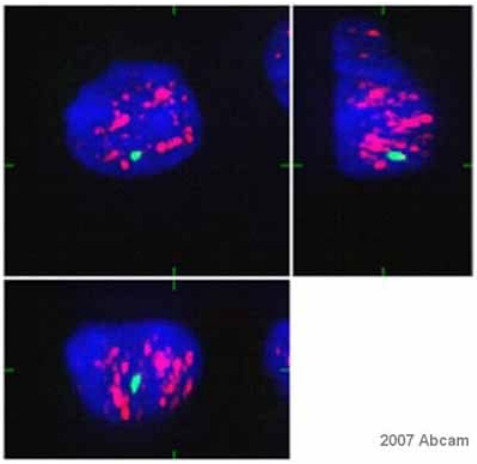
ab11826 staining SC35 in human fibroblast cells by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with paraformaldehyde, permeabilized with 0.3% Triton X-100 in PBS and blocked with 5% Normal Goat Serum/0.3% Triton X-100 in PBS for 60 minutes at 25°C. Samples were incubated with primary antibody (1/500 in 1% BSA/ 0.3% Triton X-100 in PBS) for 16 hours at 4°C. An Alexa Flour® 488 goat anti-mouse IgG (H+L), F(ab')2 Fragment Ig was used as the secondary antibody at a dilution of 1/1000.



Immunocytochemistry/ Immunofluorescence - Anti-SC35 antibody [SC-35] - Nuclear Speckle Marker (ab11826)

This image is courtesy of an Abreview submitted by Dr Kirk McManus

ab11826 (1/1000) staining SC35 (phospho) in human retinal pigment epithelial (RPE) cells (green). Cells were fixed in paraformaldehyde, permeabilized with 0.5% Triton X-100/PBS and counterstained with DAPI in order to highlight the nucleus (blue). Please refer to abreview for further experimental details.

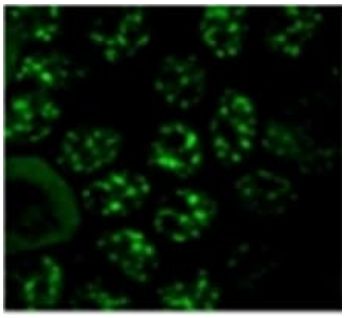


Immunocytochemistry/ Immunofluorescence - Anti-SC35 antibody [SC-35] - Nuclear Speckle Marker (ab11826)

This image is courtesy of an Abreview submitted by Dr Eva Bartova

ab11826 staining cultured human colon adenocarcinoma HT-29 cells.

Cells were PFA fixed and permeabilized in Triton X-100 and saponin prior to blocking with 1% BSA for 1 hour at RT. The primary antibody was diluted 1/200 and incubated with the sample for 16 hours at 4°C. An Alexa Fluor® 594 conjugated goat anti-mouse IgG3 antibody was used as the secondary.



Immunocytochemistry/ Immunofluorescence - Anti-SC35 antibody [SC-35] - Nuclear Speckle Marker (ab11826)

Image from de Chiara C et al, PLoS One. 2009 Dec 23;4(12):e8372, Fig 3.

HeLa (Human epithelial cell line from cervix adenocarcinoma) cells were fixed 24–48 hours after transfection using 4% paraformaldehyde, permeabilized with 0.2% triton X-100/PBS and probed with ab11826 followed by FITC conjugated secondary antibodies (green). After washing with PBS, slides were mounted using Citifluor and analysed by confocal microscopy. Cells were visualized under a Leica laser scanning confocal microscope equipped with a DM-RXE microscope and an argon-krypton laser.

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