abcam

ab227680

Anti-SOX10 antibody [SP267]

Anti-SOX10 antibody [SP267] (ab227680) is a rabbit monoclonal antibody detecting SOX10 in **Western Blot, Flow Cytometry (Intra), IHC-P, ICC/IF**. Suitable for **Human, Mouse, Rat**.

- Biophysical QC for unrivalled batch-batch consistency
- Over 10 publications

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.1% Sodium azide Constituents: PBS, 1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	SP267
Purification technique	Affinity purification Protein A
Concentration	0.025 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Mouse
Dilution info	1/100
Notes	Primary antibody incubation for 10 minutes at room temperature. Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Species	Rat
Dilution info	1/100
Notes	Primary antibody incubation for 10 minutes at room temperature. Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Species	Human
Dilution info	1/100
Notes	Primary antibody incubation for 10 minutes at room temperature. Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Predicted

Species	Chicken, Pig
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/400
Notes	Primary antibody incubation for 1 hour at room temperature.

Expected

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

Predicted

Species	Chicken, Pig
Dilution info	-
Notes	-

IHC-FoFr

Tested

Species	Mouse
Dilution info	1/50
Notes	Perform heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).

Expected

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

Predicted

Species	Chicken, Pig
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Mouse
Dilution info	1/25
Notes	-

Species	Rat
Dilution info	1/25

Notes	-

Species	Human
Dilution info	1/25
Notes	-

Predicted

Species	Chicken, Pig
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Mouse
Dilution info	1/20 - 1/200
Notes	-

Species	Rat
Dilution info	1/20 - 1/200
Notes	-

Species	Human
Dilution info	1/20 - 1/200
Notes	-

Predicted

Species	Chicken, Pig
Dilution info	-
Notes	-

Target data

See full target information SOX10

Function	Transcription factor that plays a central role in developing and mature glia (By similarity). Specifically activates expression of myelin genes, during oligodendrocyte (OL) maturation, such as DUSP15 and MYRF, thereby playing a central role in oligodendrocyte maturation and CNS myelination (By similarity). Once induced, MYRF cooperates with SOX10 to implement the myelination program (By similarity). Transcriptional activator of MITF, acting synergistically with PAX3 (PubMed:21965087). Transcriptional activator of MBP, via binding to the gene promoter (By similarity).

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

Anti-SOX10 antibody [SP267] (ab227680) was developed by Abcam using patented rabbit monoclonal antibody technology and is validated for use in Flow Cyt (Intra), ICC/IF, IHC-FoFr IHC-P and WB.

Abcam's high quality manufacturing and validation processes ensure Anti-SOX10 antibody [SP267] (ab227680) has high sensitivity and specificity alongside high lot-to-lot consistency and reproducibility.

Anti-SOX10 antibody [SP267] (ab227680) has 5 independent reviews from customers.

Anti-SOX10 antibody [SP267] (ab227680) specifically detects SOX10 (UniProt ID: P56693; Molecular weight: 50kDa) and is sold in 100 µL, 500 µL and 1 mL selling sizes.

Conjugation-ready, carrier free format available for antibody clone SP267 - ab239752.

Antibody clone SP267 is also available pre-conjugated to a variety of labels for your convenience - Alexa Fluor® 488, Alexa Fluor® 647, PE, Alexa Fluor® 555, APC, Alexa Fluor® 594, Alexa Fluor® 568 (ab270150, ab270151, ab270152, ab307763, ab310845, ab311668, ab313897).

Anti-SOX10 antibody [SP267] (ab227680) is a clone from the portfolio of Spring Bioscience (Roche) SP clones which have been optimised for immunohistochemistry (IHC).

SOX10 is a crucial transcription factor in neuro research, particularly for its role in the development and differentiation of neural crest cells and glial cells. It is essential for the formation of Schwann cells and oligodendrocytes, which are vital for myelination in the peripheral and central nervous systems. Researchers use SOX10 to study neural crest cell fate, myelination processes and related disorders, making it vital for understanding neurodevelopmental diseases and demyelinating conditions.Additionally, SOX10 plays a significant role in melanoma, an aggressive form of skin cancer. It is highly expressed in melanoma cells and is essential for their proliferation and survival. Altered SOX10 expression can influence melanoma progression and drug resistance, making it a critical target for understanding and potentially treating melanoma.

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.

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

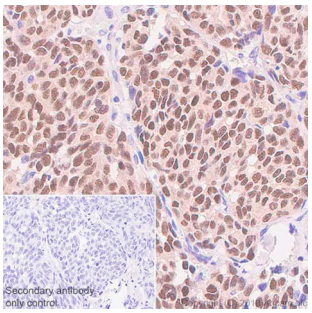
We do not recommend this combination. It is not covered by our product promise.

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.

14 product images

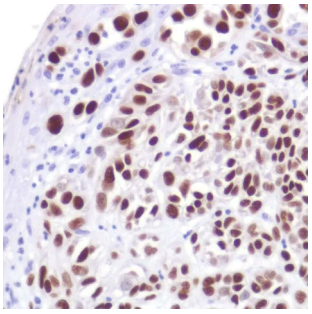


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SOX10 antibody [SP267] (ab227680)

SOX10 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-SOX10 antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human melanoma tissue sections labeling SOX10 with ab227680 at 1/100 dilution (0.25 µg/ml). Heat mediated antigen retrieval with Citrate buffer (pH 6.0, epitope retrieval solution 1) for 10mins. Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used as the secondary antibody. Hematoxylin was used as a counterstain. Mainly nuclear staining on the human melanoma, performed on a Leica Biosystems BOND™ RX instrument.

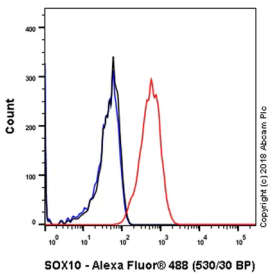
The section was incubated with ab227680 for 10 mins at room temperature.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SOX10 antibody [SP267] (ab227680)

SOX10 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-SOX10 antibody

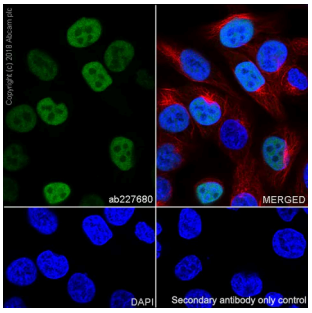
Formalin-fixed, paraffin-embedded human melanoma tissue stained for SOX10 using ab227680 at 1/100 dilution in immunohistochemical analysis.



Flow Cytometry (Intracellular) - Anti-SOX10 antibody [SP267] (ab227680)

SOX10 Flow Cytometry (Intracellular) staining using rabbit Anti-SOX10 antibody

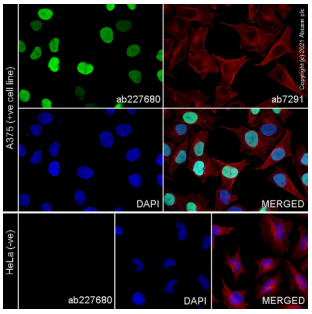
Intracellular Flow Cytometry analysis of A-375 (Human malignant melanoma epithelial cell) cells labeling SOX10 with purified ab227680 at 1/200 dilution (0.375µg/ml) Red. Cells were fixed with 4% paraformaldehyde . A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) secondary antibody was used at 1/2000 dilution. Isotype control - Rabbit monoclonal IgG (ab172730) / Black. Unlabeled control - Unlabelled cells / Blue.



Immunocytochemistry/ Immunofluorescence - Anti-SOX10 antibody [SP267] (ab227680)

SOX10 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-SOX10 antibody

Immunocytochemistry/ Immunofluorescence analysis of A-375 (human malignant melanoma epithelial cell) cells labeling SOX10 with purified ab227680 at 1:25 (3 µg/ml). Cells were fixed in 4% paraformaldehyde and permeabilized with 0.1% Triton X-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 nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.

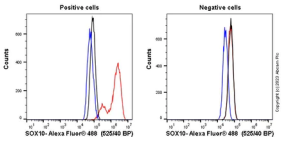


Immunocytochemistry/ Immunofluorescence - Anti-SOX10 antibody [SP267] (ab227680)

SOX10 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-SOX10 antibody

ab227680 staining SOX10 in A375 cells, with negative expression in HeLa cells. The cells were fixed with 4% formaldehyde (10 min), permeabilised with 0.1% 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 ab227680 at 1 µg/ml and ab7291, Mouse monoclonal [DM1A] to alpha Tubulin at 0.5 µg/ml. Cells were then incubated with ab150081, Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (Alexa Fluor® 488), pre-adsorbed at 1/1000 dilution (shown in green) and ab150119, Goat polyclonal Secondary Antibody to Mouse IgG - H&L (Alexa Fluor® 647), pre-adsorbed at 1/1000 dilution (shown in red). Nuclear DNA was labelled with DAPI (shown in blue).
Image was acquired with a high-content analyser (Operetta CLS, Perkin Elmer) and a maximum intensity projection of confocal sections is shown.

This product also work with 100% methanol (5 min) fixation under the same testing conditions.



Flow Cytometry (Intracellular) - Anti-SOX10 antibody [SP267] (ab227680)

SOX10 Flow Cytometry (Intracellular) staining using rabbit Anti-SOX10 antibody

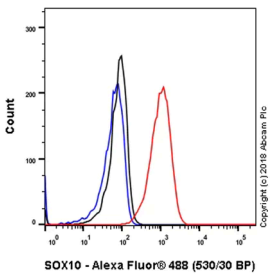
Flow cytometry overlay histogram showing left A-375 positive cells and right negative HeLa stained with ab227680 (red line). The cells were fixed with 4% formaldehyde (10 min) and then permeabilised with 0.1% PBS-Triton X-100 for 15 min. The cells were then incubated in 1x PBS containing 10% normal goat serum to block non-specific protein-protein interaction followed by the antibody (ab227680) (1x 106 in 100µl at 0.2µg/ml (1/10250)) for 30min at 22°C.

The secondary antibody Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed was incubated at 1/4000 for 30min at 22°C

Isotype control antibody (black line) was Recombinant Rabbit IgG, monoclonal [EPR25A] - Isotype Control used at the same concentration and conditions as the primary antibody. Unlabelled sample (blue line) was also used as a control.

Acquisition of >5000 events were collected using a 50 mW Blue laser (488nm) and 525/40 bandpass filter.

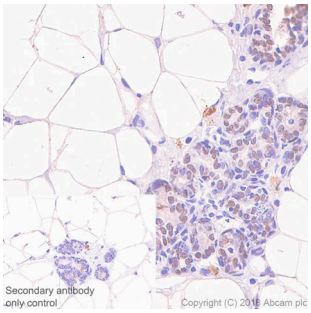
This antibody gave a positive signal in A-375 Fixed with 80% methanol (5 min) / permeabilised with 0.1% PBS-Triton X-100 for 15 min under the same conditions.



Flow Cytometry (Intracellular) - Anti-SOX10 antibody [SP267] (ab227680)

SOX10 Flow Cytometry (Intracellular) staining using rabbit Anti-SOX10 antibody

Intracellular Flow Cytometry analysis of C6 (Rat glial tumor glial cell) cells labeling SOX10 with purified ab227680 at 1/20 dilution (3.75µg/ml) Red. Cells were fixed with 4% paraformaldehyde . A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) secondary antibody was used at 1/2000 dilution. Isotype control - Rabbit monoclonal IgG (ab172730) / Black. Unlabeled control - Unlabelled cells / Blue.

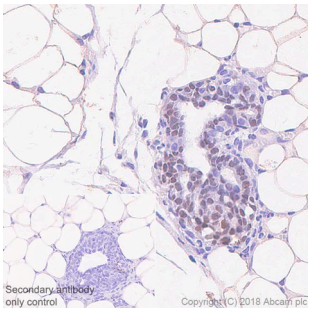


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SOX10 antibody [SP267] (ab227680)

SOX10 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-SOX10 antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of rat breast tissue sections labeling SOX10 with ab227680 at 1/100 dilution (0.25 µg/ml). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 6.0, epitope retrieval solution 1) for 10mins. Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used as the secondary antibody. Hematoxylin was used as a counterstain. Nuclear staining on the rat breast, performed on a Leica Biosystems BOND™ RX instrument.

The section was incubated with ab227680 for 10 mins at room temperature.

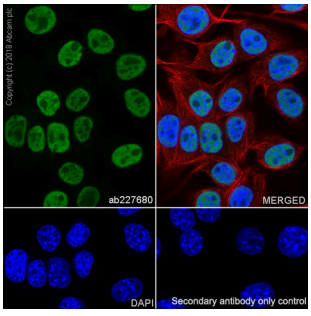


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SOX10 antibody [SP267] (ab227680)

SOX10 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-SOX10 antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse breast tissue sections labeling SOX10 with ab227680 at 1/100 dilution (0.25 µg/ml). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 6.0, epitope retrieval solution 1) for 10 mins. Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used as the secondary antibody. Hematoxylin was used as a counterstain. Nuclear staining on the mouse breast, performed on a Leica Biosystems BOND™ RX instrument.

The section was incubated with ab227680 for 10 mins at room temperature.

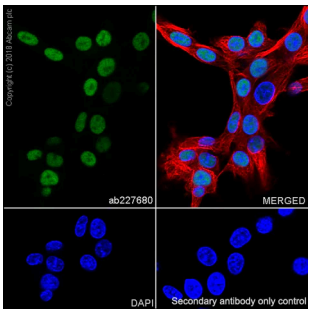


Immunocytochemistry/ Immunofluorescence - Anti-SOX10 antibody [SP267] (ab227680)

SOX10 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-SOX10 antibody

Immunocytochemistry/ Immunofluorescence analysis of B16-F0 (mouse melanoma epithelial cell-like) cells labeling SOX10 with purified ab227680 at 1:25 (3 µg/ml). Cells were fixed in 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. Cells were counterstained with

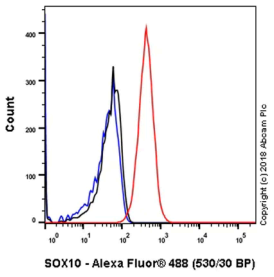
ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1:200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) was used as the secondary antibody at 1:1000 (2 µg/ml) dilution. DAPI nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Immunocytochemistry/ Immunofluorescence - Anti-SOX10 antibody [SP267] (ab227680)

SOX10 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-SOX10 antibody

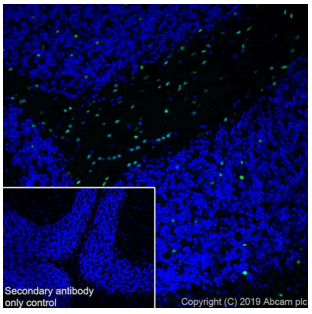
Immunocytochemistry/ Immunofluorescence analysis of C6 (rat glial tumor glial cell) cells labeling SOX10 with purified ab227680 at 1:25 (3 µg/ml). Cells were fixed in 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. Cells were counterstained with ab195889 Anti-alpha Tubulin antibody [DM1A] - 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 nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Flow Cytometry (Intracellular) - Anti-SOX10 antibody [SP267] (ab227680)

SOX10 Flow Cytometry (Intracellular) staining using rabbit Anti-SOX10 antibody

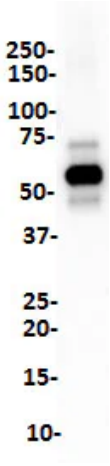
Intracellular Flow Cytometry analysis of B16-F0 (Mouse melanoma epithelial cell-like) cells labeling SOX10 with purified ab227680 at 1/200 dilution (0.375µg/ml) Red. Cells were fixed with 4% paraformaldehyde . A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) secondary antibody was used at 1/2000 dilution. Isotype control - Rabbit monoclonal IgG (ab172730) / Black. Unlabeled control - Unlabelled cells / Blue.



Immunohistochemistry (PFA perfusion fixed frozen sections) - Anti-SOX10 antibody [SP267] (ab227680)

SOX10 Immunohistochemistry (PFA perfusion fixed frozen sections) staining using rabbit Anti-SOX10 antibody

Immunohistochemistry (Frozen) analysis of mouse cerebellum tissue sections labeling SOX10 with purified ab227680 at 1/50 (1.4 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/1000 (2 µg/ml) was used as the secondary antibody. Sections were fixed with 4% paraformaldehyde and permeabilised with 0.2% Triton X-100. Negative control: PBS instead of the primary antibody. DAPI (blue) was used as nuclear counterstain. Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20) was performed.



Western blot - Anti-SOX10 antibody [SP267] (ab227680)

All lanes:
Western blot - Anti-SOX10 antibody [SP267] (ab227680) at 1/400 dilution

All lanes:
A-375 (human malignant melanoma cell line) cell lysate

Predicted band size: 49 kDa

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