abcam

ab155279

Anti-SOX10 antibody [EPR4007]

Anti-SOX10 antibody [EPR4007] (ab155279) is a rabbit monoclonal antibody detecting SOX10 in **Western Blot, Flow Cytometry (Intra), IHC-Fr, ICC/IF**. Suitable for **Human, Mouse, Rat**.

- Clone EPR4007 is the most cited clone to SOX10
- Biophysical QC for unrivalled batch-batch consistency
- Over 90 publications

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	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	EPR4007
Purification technique	Affinity purification Protein A
Concentration	0.172 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

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

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

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

IHC-Fr

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	-

ICC/IF

Tested

Species	Rat
Dilution info	1/500
Notes	**For unpurified use at 1/250 - 1/500.**

Species	Human
Dilution info	1/500

Notes	**For unpurified use at 1/250 - 1/500.**

Expected

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

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/200
Notes	-

Expected

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

Product Specifications
Anti-SOX10 antibody [EPR4007] (ab155279) was developed by Abcam using patented rabbit monoclonal antibody technology and is validated for use in Flow Cyt (Intra), ICC/IF, IHC-Fr, WB in human, mouse, rat samples.
Anti-SOX10 antibody [EPR4007] (ab155279) specifically detects SOX10 (UniProt ID: P56693; Molecular weight: 50kDa) and is sold in 100 µL and 1 mL selling sizes.

Quality and Validation
Abcam's high quality manufacturing and validation processes ensure Anti-SOX10 antibody [EPR4007] (ab155279) has high sensitivity and specificity alongside high lot-to-lot consistency and reproducibility.
Anti-SOX10 antibody [EPR4007] (ab155279) has been cited over 93 times in peer reviewed journals and is trusted by the scientific community.
Anti-SOX10 antibody [EPR4007] (ab155279) has 7 independent reviews from customers.

Related Products
Antibody clone EPR4007 is also available pre-conjugated to a variety of labels for your convenience - PE, APC, Alkaline Phosphatase, Alexa Fluor® 488, Alexa Fluor® 647, Alexa Fluor® 594, Alexa Fluor® 555, Alexa Fluor® 568, Alexa Fluor® 750 (ab305382, ab305383, ab309014, ab309657, ab310021, ab310390, ab311916, ab312387, ab321140).
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

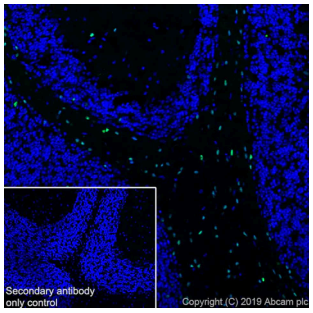
We do not recommend this combination. It is not covered by our product promise.

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.

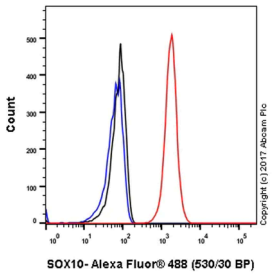
6 product images



Immunohistochemistry (Frozen sections) - Anti-SOX10 antibody [EPR4007] (ab155279)

SOX10 Immunohistochemistry (Frozen sections) staining using rabbit Anti-SOX10 antibody

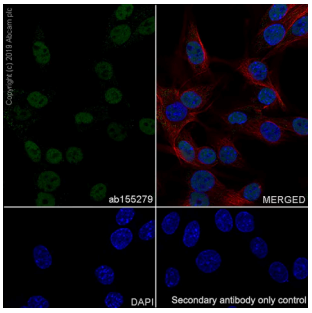
Immunohistochemistry (Frozen) analysis of mouse cerebellum tissue sections labeling SOX10 with purified ab155279 at 1/50 (2.2 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/1000 (2 µg/ml) was used as the secondary antibody. Sections were fixed with 4% paraformaldehyde and permeabilised 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.



Flow Cytometry (Intracellular) - Anti-SOX10 antibody [EPR4007] (ab155279)

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

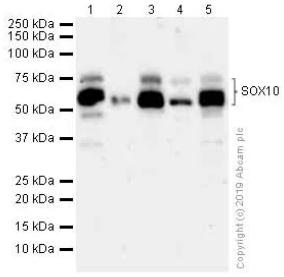
Intracellular Flow Cytometry analysis ofA-375 (human malignant melanoma cell line) cells labeling with purified ab155279 at 1/200 dilution (1ug/ml) (Red). Cells were fixed with4% paraformaldehydeand permeabilised with 90% methanol. A Goat anti rabbit IgG (Alexa Fluor® 488) (ab150077) (1/2000 dilution) was used as the secondary antibody.Rabbit monoclonal IgG (Black) (ab172730) was used as a isotype control.Cell without incubation with primary antibody and secondary antibody (Blue) were used as unlabeled control.



Immunocytochemistry/ Immunofluorescence - Anti-SOX10 antibody [EPR4007] (ab155279)

SOX10 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-SOX10 antibody

Immunocytochemistry/ Immunofluorescence analysis of C6 (Rat glial tumor glial cell) cells labeling SOX10 with purified ab155279 at 1:50 dilution (3.6 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.



Western blot - Anti-SOX10 antibody [EPR4007] (ab155279)

SOX10 Western blot staining using rabbit Anti-SOX10 antibody

The bands observed are consistent with what have been described in PMID: 21423190
All lanes:
Western blot - Anti-SOX10 antibody [EPR4007] (ab155279) at 1/1000 dilution

Lane 1:
Human brain lysates at 20 µg

Lane 2:
SH-SY5Y (Human neuroblastoma epithelial cell) whole cell lysates at 20 µg

Lane 3:
Mouse brain lysates at 20 µg

Lane 4:
Neuro-2a (Mouse neuroblastoma neuroblast) whole cell lysates at 20 µg

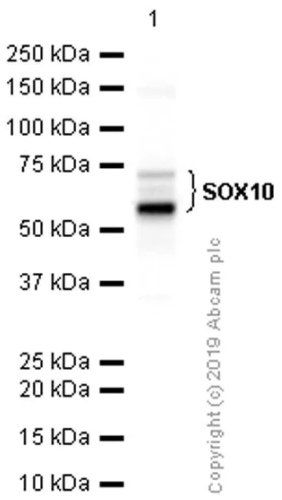
Lane 5:
Rat brain lysates at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

Predicted band size: 49 kDa

Observed band size: 56-75 kDa



Western blot - Anti-SOX10 antibody [EPR4007] (ab155279)

SOX10 Western blot staining of A375 (Human malignant melanoma epithelial cell) whole cell lysate using rabbit Anti-SOX10 antibody

Blocking and diluting buffer: 5% NFDM/TBST
All lanes:
Western blot - Anti-SOX10 antibody [EPR4007] (ab155279) at 1/2000 dilution

All lanes:
A375 (Human malignant melanoma epithelial cell) whole cell lysate at 15 µg

Secondary

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

Predicted band size: 49 kDa

Observed band size: 56-75 kDa

Exposure time: 3s

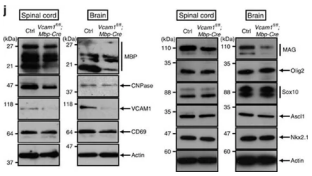


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Western blot - Anti-SOX10 antibody [EPR4007] (ab155279)

SOX10 western blot using anti-SOX10 antibody [EPR4007] ab155279. Publication image and figure legend from Miyamoto, Y., Torii, T., et al., 2016, Nat Commun, PubMed 27876794.

ab155279 was used in this publication in western blot. This may not be the same as the application(s) guaranteed by Abcam. For a full list of applications guaranteed by Abcam for ab155279 please see the product overview.

Knockout of VCAM1 in oligodendrocytes decreases myelin marker protein expression in mice.(a,b) MBP-Cre-driven VCAM1 conditional knockout (VCAM1fl/fl; Mbp-Cre) and control mouse spinal cord cross sections at postnatal day 7 were stained with an antibody against GFAP (green) or NeuN (red). Data are representative. Scale bar, 200 µm (a); 100 µm (b). (c) The intensity of GFAP staining per one square millimetre was semi-quantified at postnatal days 7, 14 and 21. Data were evaluated using Student’ s t-test (non-significance; n=6 slices of two independent experiments). (d) The number of NeuN+ cells per field was counted. Data were evaluated using Student’ s t-test (non-significance; n=5 slices of two independent experiments). (e) Spinal cord cross sections of VCAM1fl/fl; Mbp-Cre and control mice at postnatal day 7 were co-stained with an antibody against CC1 (red) and DAPI (blue). Data are representative. Scale bar, 100 µm. (f,g) Antibodies against CC1 (red) and Olig2 (green) were used for co-staining in spinal cord cross sections at postnatal days 7, 14, 21 and 28. Data are representative. Scale bar, 100 µm. The percentage of CC1+ cells among the Olig2+ cells is shown. Data were evaluated using Student’ s t-test (**P=0.00638 (P7), 0.000961 (P14), 0.00111 (P21) or 2.11E-09 (P28); n=6–10 slices of two independent experiments). (h,i) Corpus callosum sections of VCAM1fl/fl; Mbp-Cre and control mouse (h) or VCAM1fl/fl; Ng2-Cre and control mouse (i) at postnatal day 11 were co-stained with an anti-MBP antibody (red) and DAPI (blue). Data are representative of six slices of two independent experiments. Scale bar, 200 µm. (j) Tissue lysates from 7-day-old spinal cords or 11-day-old brains were immunoblotted with an antibody against MBP, CNPase, VCAM1, CD69, MAG, Olig2, Sox10, Ascl1, Nkx2.1 or actin. Data are representative of three experiments.

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