abcam

Product datasheet

Anti-SOX10 antibody [EPR4007] ab155279

Recombinant RabMAb

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Overview

Product name	Anti-SOX10 antibody [EPR4007]
Description	Rabbit monoclonal [EPR4007] to SOX10
Host species	Rabbit
Tested applications	**Suitable for:** IHC-Fr, ICC/IF, Flow Cyt (Intra), WB
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Human brain, SH-SY5Y, A375, Mouse brain, Neuro-2a, and Rat brain lysates; ICC/IF: C6 cells. Flow Cyt (intra): A-375 cells. IHC-Fr: Mouse cerebellum
General notes	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 production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

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 long term. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR4007
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab155279 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
IHC-Fr		1/50. Perform heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).
ICC/IF	★★★★★ (3)	1/500. **For unpurified use at 1/250 - 1/500.**
Flow Cyt (Intra)		1/200.
WB	★★★★★ (1)	1/1000 - 1/10000. Predicted molecular weight: 49 kDa.

Target

Function Transcription factor that seems to function synergistically with the POU domain protein TST-1/OCT6/SCIP. Could confer cell specificity to the function of other transcription factors in developing and mature glia.

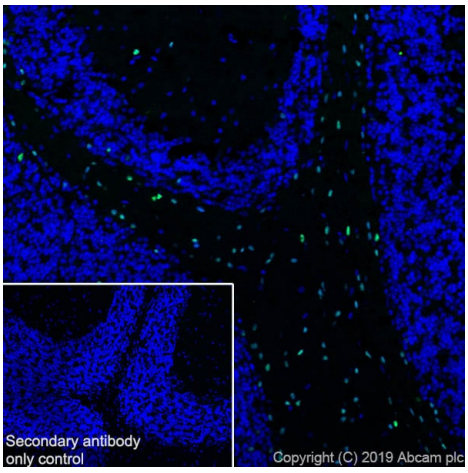
Tissue specificity Expressed in fetal brain and in adult brain, heart, small intestine and colon.

Involvement in disease Defects in SOX10 are the cause of Waardenburg syndrome type 2E (WS2E) [MIM:611584]. WS2 is a genetically heterogeneous, autosomal dominant disorder characterized by sensorineural deafness, pigmentary disturbances, and absence of dystopia canthorum. The frequency of deafness is higher in WS2 than in WS1.
Defects in SOX10 are a cause of Waardenburg syndrome type 4C (WS4C) [MIM:613266]; also known as Waardenburg-Shah syndrome. WS4C is characterized by the association of Waardenburg features (depigmentation and deafness) and the absence of enteric ganglia in the distal part of the intestine (Hirschsprung disease).
Defects in SOX10 are a cause of Yemenite deaf-blind hypopigmentation syndrome (YDBHS) [MIM:601706]. YDBHS consists of cutaneous hypopigmented and hyperpigmented spots and patches, microcornea, coloboma and severe hearing loss. Another case observed in a girl with similar skin symptoms and hearing loss but without microcornea or coloboma is reported as a mild form of this syndrome.
Defects in SOX10 are the cause of peripheral demyelinating neuropathy, central dysmyelinating leukodystrophy, Waardenburg syndrome, and Hirschsprung disease (PCWH) [MIM:609136]; also called neurologic variant of Waardenburg-Shah syndrome. PCWH is a rare, complex and more severe neurocristopathy that includes features of 4 distinct syndromes: peripheral demyelinating neuropathy, central dysmyelinating leukodystrophy, Waardenburg syndrome, and Hirschsprung disease.

Sequence similarities Contains 1 HMG box DNA-binding domain.

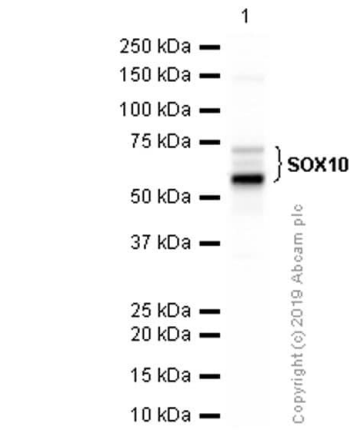
Cellular localization Cytoplasm. Nucleus.

Images



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

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.



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

Anti-SOX10 antibody [EPR4007] (ab155279) at 1/2000 dilution + A375 (Human malignant melanoma epithelial cell) whole cell lysate at 15 µg

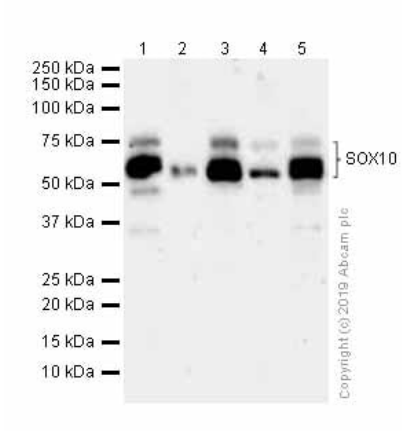
Secondary

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: 3 seconds

Blocking and diluting buffer: 5% NFDM/TBST



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

All lanes : Anti-SOX10 antibody [EPR4007] (ab155279) at 1/1000 dilution (Purified)

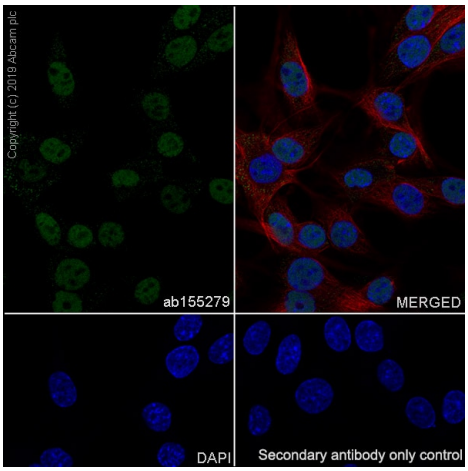
Lane 1 : Human brain lysates
Lane 2 : SH-SY5Y (Human neuroblastoma epithelial cell) whole cell lysates
Lane 3 : Mouse brain lysates
Lane 4 : Neuro-2a (Mouse neuroblastoma neuroblast) whole cell lysates
Lane 5 : Rat brain lysates

Lysates/proteins at 20 µg per lane.

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

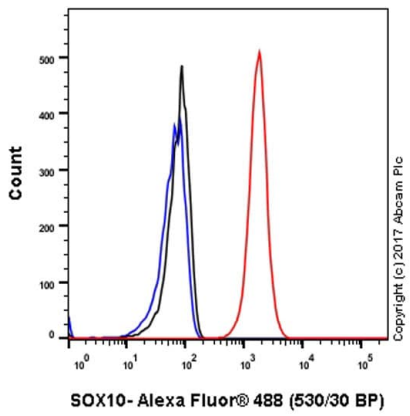
Predicted band size: 49 kDa
Observed band size: 56-75 kDa

The bands observed are consistent with what have been described in PMID: 21423190



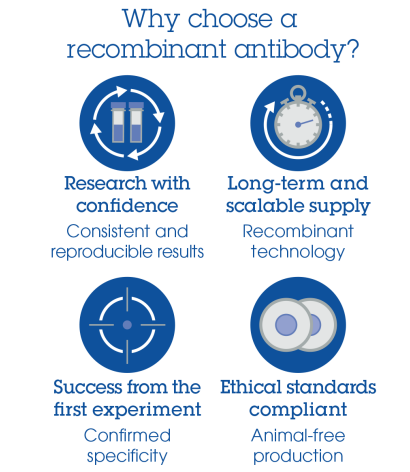
Immunocytochemistry/ Immunofluorescence - Anti-SOX10 antibody [EPR4007] (ab155279)

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.



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

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.



Anti-SOX10 antibody [EPR4007] (ab155279)

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