abcam

ab259952

Anti-Oct6 antibody [EPR24057-94]

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	EPR24057-94
Purification technique	Affinity purification Protein A
Concentration	0.522 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Mouse
Dilution info	1/50
Notes	-

Species	Rat

Dilution info	1/50
Notes	-

Expected

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

IP

Not recommended

Species	Mouse, Human, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Mouse
Dilution info	1/50
Notes	-

Species	Rat
Dilution info	1/50
Notes	-

Expected

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

WB

Tested

Species	Mouse
Dilution info	1/1000
Notes	-

Species	Rat
Dilution info	1/1000
Notes	-

Species	Human
Dilution info	1/1000
Notes	-

IHC-Fr

Tested

Species	Mouse
Dilution info	1/100
Notes	Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20)

Species	Rat
Dilution info	1/100
Notes	Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20)

Expected

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

IHC-P

Tested

Species	Mouse
Dilution info	1/2000
Notes	-

Species	Rat
Dilution info	1/2000
Notes	-

Species	Human
Dilution info	1/2000
Notes	-

Target data

See full target information POU3F1

Function	Transcription factor that binds to the octamer motif (5'-ATTTGCAT-3') (By similarity). Acts as a transcriptional activator when binding cooperatively with SOX4, SOX11, or SOX12 to gene promoters (By similarity). Acts as a transcriptional repressor of myelin-specific genes (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

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	Oct6 also known as Pou3f1 is a transcription factor with a molecular mass of approximately 45 kDa. It functions as a DNA-binding protein that influences gene expression during development. Oct6 belongs to the POU domain transcription factor family which plays a significant role in regulating specific genes across different cellular contexts. This protein is expressed mainly in the nervous system specifically in oligodendrocytes Schwann cells and some sensory organs reflecting its involvement in neural development.
Biological function summary	Oct6 regulates important developmental processes by controlling the timing and progression of myelination in the peripheral nervous system. It is a part of a multi-protein complex that includes other transcription factors necessary for glial cell differentiation. Oct6 acts by promoting the expression of genes essential for the development and function of the myelin sheath thereby maintaining proper nerve conduction and insulation.
Pathways	Oct6 interacts within the myelination process specifically the Sonic Hedgehog signaling and WNT pathways. These pathways govern the regulation of cell growth and differentiation important for neural development. Oct6 also shows interaction with other proteins like Sox10 a fellow transcription factor important for Schwann cell development enhancing its regulatory influence in neurogenesis.
Associated diseases and disorders	Oct6 links to conditions such as Charcot-Marie-Tooth disease and Dejerine-Sottas syndrome both affecting peripheral nerves. These disorders often result from malfunction in myelination processes which Oct6 directly influences. The protein collaborates with Sox10 and EGR2 another transcription factor vital in myelination thereby implicating it in neuropathic disease mechanisms. Understanding these interactions may help develop therapeutic strategies for demyelinating diseases.

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.

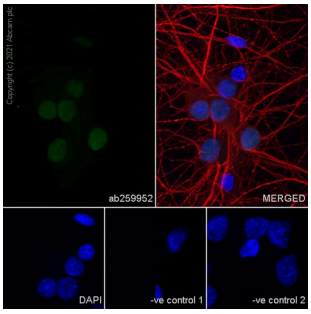
11 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Oct6 antibody [EPR24057-94] (ab259952)

Immunohistochemical analysis of paraffin-embedded Human skin tissue labelling Oct6 with ab259952 at 1/2000 (0.261 ug/ml) dilution followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Nuclear staining on epithelial cells of human skin. The section was incubated with ab259952 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin.
Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins

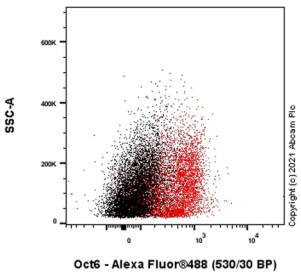


Immunocytochemistry/ Immunofluorescence - Anti-Oct6 antibody [EPR24057-94] (ab259952)

Oct6 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Oct6 antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized rat primary neuron cells labelling Oct6 with ab259952 at 1/50 (10.44 ug/ml) dilution, followed by ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (Green) Confocal image showing nuclear staining in rat primary neuron.Confocal scanning Z step was set as 0.3 µm followed by image processing with maximum Z projection is observed. ab11267 Anti-

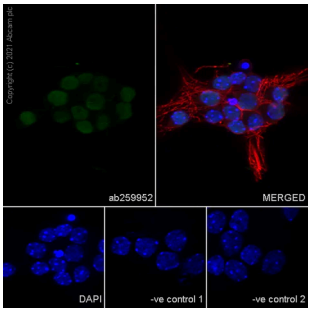
MAP2 mouse monoclonal antibody was used to counterstain tubulin at 1/500 dilution (Red). The Nuclear counterstain was DAPI (Blue).
Secondary antibody only control: Secondary antibody is ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 dilution.



Flow Cytometry (Intracellular) - Anti-Oct6 antibody [EPR24057-94] (ab259952)

Oct6 Flow Cytometry (Intracellular) staining using rabbit Anti-Oct6 antibody

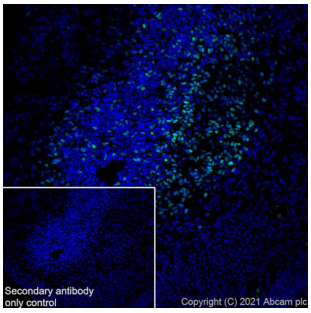
Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized Mouse primary neuron cells cells labelling Oct6 with ab259952 at 1/50 dilution (1ug)/(Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control. A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/2000 dilution was used as the secondary antibody.



Immunocytochemistry/ Immunofluorescence - Anti-Oct6 antibody [EPR24057-94] (ab259952)

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Secondary antibody only control: Secondary antibody is ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 dilution.

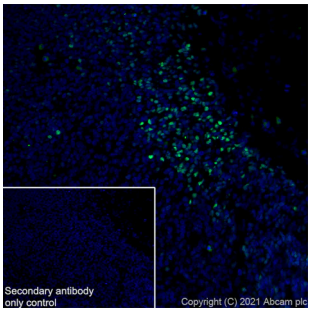


Immunohistochemistry (Frozen sections) - Anti-Oct6 antibody [EPR24057-94] (ab259952)

Oct6 Immunohistochemistry (Frozen sections) staining using rabbit Anti-Oct6 antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Mouse E14.5 embryonic tissue labeling Oct6 with ab259952 at 1/100 (5.22 ug/ml) dilution followed by ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 dilution (Green). Nuclear staining on mouse E14.5 embryonic brain is observed. The nuclear counterstain was DAPI (Blue).
Secondary antibody control: Secondary antibody is ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488)at 1/1000 dilution.

Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).

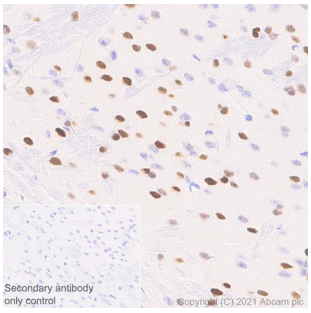


Immunohistochemistry (Frozen sections) - Anti-Oct6 antibody [EPR24057-94] (ab259952)

Oct6 Immunohistochemistry (Frozen sections) staining using rabbit Anti-Oct6 antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Rat E14.5 embryonic tissue labeling Oct6 with ab259952 at 1/100 (5.22 ug/ml) dilution followed by ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 dilution (Green). Nuclear staining on rat E14.5 embryonic brain is observed. The nuclear counterstain was DAPI (Blue).
Secondary antibody control: Secondary antibody is ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488)at 1/1000 dilution.

Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).

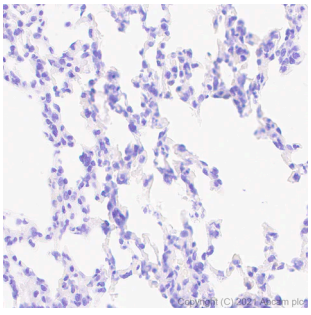


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Oct6 antibody [EPR24057-94] (ab259952)

Oct6 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Oct6 antibody

Immunohistochemical analysis of paraffin-embedded Mouse cerebrum tissue labelling Oct6 with ab259952 at 1/2000 (0.261 ug/ml) dilution followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Nuclear staining on mouse cerebrum. The section was incubated with ab259952 for 30 mins at room temperature.The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin.
Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins

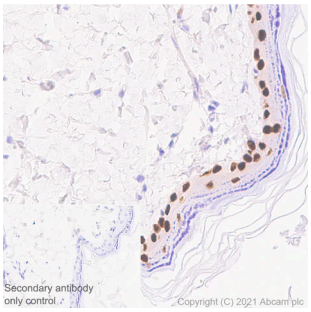


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Oct6 antibody [EPR24057-94] (ab259952)

Oct6 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Oct6 antibody

Immunohistochemical analysis of paraffin-embedded Rat lung tissue labelling Oct6 with ab259952 at 1/2000 (0.261 ug/ml) dilution followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). **Negative control**: No staining in rat lung. The section was incubated with ab259952 for 30 mins at room temperature.The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin.
Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins

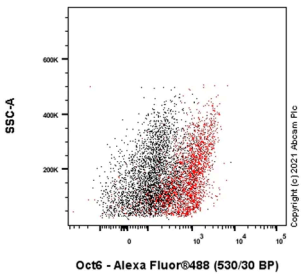


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Oct6 antibody [EPR24057-94] (ab259952)

Oct6 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Oct6 antibody

Immunohistochemical analysis of paraffin-embedded Rat skin tissue labelling Oct6 with ab259952 at 1/2000 (0.261 ug/ml) dilution followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Nuclear staining on epithelial cells of rat skin. The section was incubated with ab259952 for 30 mins at room temperature.The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin.
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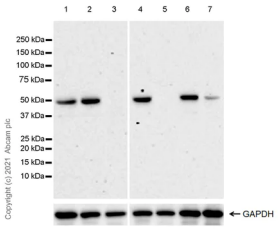
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins



Flow Cytometry (Intracellular) - Anti-Oct6 antibody [EPR24057-94] (ab259952)

Oct6 Flow Cytometry (Intracellular) staining using rabbit Anti-Oct6 antibody

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized Rat primary neuron cells cells labelling Oct6 with ab259952 at 1/50 dilution (1ug)/(Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control. A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/2000 dilution was used as the secondary antibody.



Western blot - Anti-Oct6 antibody [EPR24057-94] (ab259952)

Oct6 Western blot staining using rabbit Anti-Oct6 antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST
Negative control: lung (PMID: 1979677).

Exposure time: 3 minutes

All lanes:
Western blot - Anti-Oct6 antibody [EPR24057-94] (ab259952) at 1/1000 dilution

Lane 1:
Rat P0 brain tissue lysate at 20 µg

Lane 2:
Rat P7 hippocampus tissue lysate at 20 µg

Lane 3:
Rat lung tissue lysate at 20 µg

Lane 4:
Mouse P1 brain tissue lysate at 20 µg

Lane 5:
Mouse lung tissue lysate at 20 µg

Lane 6:
F9 (mouse embryonal carcinoma epithelial cell) whole cell lysate at 20 µg

Lane 7:
NCCIT (human pluripotent embryonic carcinoma epithelial cell) whole cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/50000 dilution

Predicted band size: 45 kDa

Observed band size: 48 kDa

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