

## Anti-Olig1 antibody - N-terminal

### Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 Preservative: 0.02% Sodium azide Constituents: 99% PBS
Form	Liquid
Clonality	Polyclonal
Immunogen	Synthetic Peptide within Human OLIG1. The exact immunogen used to generate this antibody is proprietary information. Database link <a href="#">Q8TAK6</a> ↗
Purification technique	Affinity purification Immunogen
Specificity	ab191694 is predicted to not cross-react with other members of the OLIG family of proteins.
Concentration	1 mg/mL The concentration of this product may be batch-dependent <a href="#">Batch concentration finder</a> →
Purification notes	ab191694 is affinity chromatography purified via peptide column.

### Reactivity data

#### WB

##### Tested

Species	Human
Dilution info	1.00000-2.00000 µg/mL
Notes	-

# IHC-P

## Tested

<b>Species</b>	Human
<b>Dilution info</b>	5 µg/mL
<b>Notes</b>	-

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## Target data

[See full target information OLIG1](#) 

<b>Function</b>	Promotes formation and maturation of oligodendrocytes, especially within the brain. Cooperates with OLIG2 to establish the pMN domain of the embryonic neural tube (By similarity).
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## Storage

<b>Shipped at conditions</b>	Blue Ice
<b>Appropriate short-term storage duration</b>	1-2 weeks
<b>Appropriate short-term storage conditions</b>	+4°C
<b>Appropriate long-term storage conditions</b>	-20°C
<b>Aliquoting information</b>	Upon delivery aliquot
<b>Storage information</b>	Avoid freeze / thaw cycle

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## Notes

Abcam is leading the way to address reproducibility in scientific research with our highly validated recombinant monoclonal and recombinant multiclonal antibodies. Search & select one of Abcam's thousands of recombinant alternatives to eliminate batch-variability and unnecessary animal use.

If you do not find a host species to meet your needs, our catalogue and custom Chimeric range provides scientists the specificity of Abcam's RabMAbs in the species backbone of your choice. Remember to also review our range of edited cell lines, proteins and biochemicals relevant to your target that may help you further your research goals.

Abcam antibodies are extensively validated in a wide range of species and applications, so please check the reagent specifications meet your scientific needs before purchasing. If you have any questions or bespoke requirements,

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## Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

### Activity summary

Olig1 also known as oligodendrocyte lineage transcription factor 1 is a protein involved in the development and function of oligodendrocytes cells that form the myelin sheath in the central nervous system. It weighs approximately 30 kDa and is expressed primarily in the brain and spinal cord. The protein plays a fundamental role in the maturation process of oligodendrocyte progenitor cells by regulating the transcription of genes necessary for myelination.

### Biological function summary

Olig1 is important in the differentiation of progenitor cells into mature oligodendrocytes. It interacts with other proteins like Olig2 often forming heterodimer complexes that enhance transcriptional regulation. Olig1's regulatory actions influence cellular processes pivotal for maintaining neural integrity and function aiding in the production of myelin which is essential for fast and efficient nerve signal transmission in the central nervous system.

### Pathways

Olig1 contributes significantly to the oligodendrocyte differentiation and development pathway as well as the myelination process. It works closely with Olig2 with both proteins being regulated within the Sonic Hedgehog signaling pathway. This pathway is vital for neural cell fate determination and contributes to the development of the nervous system ensuring proper function and communication within central nervous system.

### Associated diseases and disorders

Olig1 plays a role in multiple sclerosis and leukodystrophies where myelination is impaired. Abnormal regulation or expression of Olig1 can lead to demyelination a characteristic feature of these diseases. It is also associated with Olig2 which is similarly implicated in these neurological disorders. Understanding Olig1's involvement opens potential targets for therapeutic approaches in treating diseases affecting myelin and oligodendrocyte function.

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## 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.

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In the unlikely event of one of our products not working as expected, you are covered by our product promise.

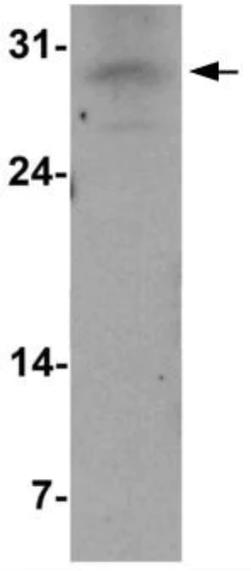
Full details and terms and conditions can be found here:

[Terms & Conditions.](#)

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### 3 product images

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#### Western blot - Anti-Olig1 antibody - N-terminal (ab191694)

All lanes:

Western blot - Anti-Olig1 antibody - N-terminal (ab191694) at 1  $\mu\text{g}/\text{mL}$

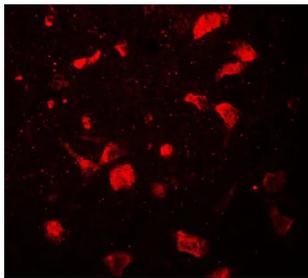
All lanes:

A549 cell lysate at 15  $\mu\text{g}$

Developed using the ECL technique.

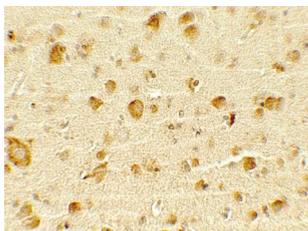
Predicted band size: 27 kDa

Observed band size: 29 kDa



#### Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Olig1 antibody - N-terminal (ab191694)

Immunohistochemical analysis of human brain tissue, labeling Olig1 using ab191694 at 20  $\mu\text{g}/\text{mL}$ .



#### Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Olig1 antibody - N-terminal (ab191694)

Immunohistochemical analysis of paraffin-embedded Human brain tissue, labeling Olig1 using ab191694 at 5  $\mu\text{g}/\text{mL}$ .

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