# abcam

### Product datasheet

## Alexa Fluor® 488 Anti-Olig2 antibody [EPR2673] ab225099

Recombinant RothMAb

#### 1 References 2 Images

#### Overview

**Product name** Alexa Fluor® 488 Anti-Olig2 antibody [EPR2673]

**Description** Alexa Fluor® 488 Rabbit monoclonal [EPR2673] to Olig2

**Host species** Rahhit

Conjugation Alexa Fluor® 488, Ex: 495nm, Em: 519nm

**Tested applications** Suitable for: IHC-Fr Species reactivity Reacts with: Rat

Predicted to work with: Mouse, Human

Synthetic peptide. This information is proprietary to Abcam and/or its suppliers. **Immunogen** 

Positive control IHC-Fr: Normal rat brain tissue sections

**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.

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#### **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.

Avoid freeze / thaw cycle. Store In the Dark.

Storage buffer pH: 7.40

Preservative: 0.02% Sodium azide

Constituents: 30% Glycerol (glycerin, glycerine), 1% BSA, PBS

Purity Immunogen affinity purified

Clonality Monoclonal
Clone number EPR2673

**Isotype** IgG

#### **Applications**

The Abpromise guarantee

Our Abpromise guarantee covers the use of ab225099 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		1/250.

#### **Target**

**Function** Required for oligodendrocyte and motor neuron specification in the spinal cord, as well as for the

development of somatic motor neurons in the hindbrain. Cooperates with OLIG1 to establish the pMN domain of the embryonic neural tube. Antagonist of V2 interneuron and of NKX2-2-induced

V3 interneuron development.

**Tissue specificity** Expressed in the brain, in oligodendrocytes. Strongly expressed in oligodendrogliomas, while

expression is weak to moderate in astrocytomas. Expression in glioblastomas highly variable.

Involvement in disease Note=A chromosomal aberration involving OLIG2 may be a cause of a form of T-cell acute

lymphoblastic leukemia (T-ALL). Translocation t(14;21)(q11.2;q22) with TCRA.

Sequence similarities Contains 1 basic helix-loop-helix (bHLH) domain.

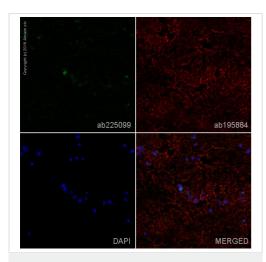
**Domain** The bHLH is essential for interaction with NKX2-2.

**Cellular localization**Nucleus. Cytoplasm. The NLS contained in the bHLH domain could be masked in the native form

and translocation to the nucleus could be mediated by interaction either with class E bHLH partner

protein or with NKX2-2.

#### **Images**



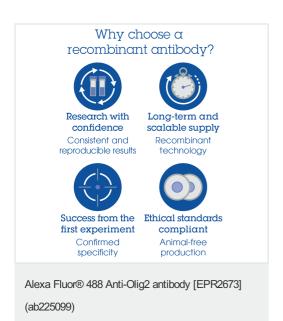
Immunohistochemistry (Frozen sections) - Alexa Fluor® 488 Anti-Olig2 antibody [EPR2673] (ab225099)

IHC image of Olig2 staining in a section of frozen normal rat brain.

The section was fixed using 10% formaldehyde in 1XPBS for 10 minutes. No antigen retrieval step was performed prior to staining. Non-specific protein-protein interactions were then blocked in TBS containing 0.025% (v/v) Triton X-100, 0.3M (w/v) glycine and 1% (w/v) BSA for 1h at room temperature. The section was then incubated overnight at +4°C in TBS containing 0.025% (v/v) Triton X-100 and 1% (w/v) BSA with ab225099 at 1/250 dilution (shown in green) and counterstained using ab195884, Rat monoclonal to Tubulin (Alexa Fluor® 647), at 1/250 dilution (shown in red). Nuclear DNA was labelled with DAPI (shown in blue). The section was then mounted using Fluoromount®.

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

For other IHC staining systems (automated and non-automated), customers should optimize variable parameters such as antigen retrieval conditions, antibody concentrations and incubation times.



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