abcam

ab175236

# Anti-Oligodendrocyte Specific Protein antibody [EPR12726] - Oligodendrocyte Marker

Lab Essentials | 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, 50% Tissue culture supernatant, 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** | EPR12726 |
| **Purification technique** | Affinity purification Protein A |
| **Concentration** | 0.88 mg/mL The concentration of this product may be batch-dependent<br>Batch concentration finder → |

## Reactivity data

## IP

### Not recommended

| | |
|---|---|
| **Species** | Human, Mouse, Rat, Cow, Cynomolgus monkey, Orangutan |
| **Dilution info** | - |
| **Notes** | - |

## Flow Cyt

### Tested

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | 1/100 - 1/500 |
| **Notes** | ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody. |

### Predicted

| | |
|---|---|
| **Species** | Mouse, Rat, Cow, Cynomolgus monkey, Orangutan |
| **Dilution info** | - |
| **Notes** | - |

## WB

### Tested

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

### Predicted

| | |
|---|---|
| **Species** | Mouse, Rat, Cow, Cynomolgus monkey, Orangutan |
| **Dilution info** | - |
| **Notes** | - |

## IHC-P

### Not recommended

| | |
|---|---|
| **Species** | Human, Mouse, Rat, Cow, Cynomolgus monkey, Orangutan |
| **Dilution info** | - |
| **Notes** | - |

## ICC/IF

**Not recommended**

| | |
|---|---|
| **Species** | Human, Mouse, Rat, Cow, Cynomolgus monkey, Orangutan |
| **Dilution info** | - |
| **Notes** | - |

## Target data

See full target information CLDN11

| | |
|---|---|
| **Function** | Plays a major role in tight junction-specific obliteration of the intercellular space, through calcium-independent cell-adhesion activity. |

## 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** | Oligodendrocyte Specific Protein also known as O4 or O4 protein is an important marker for oligodendrocytes. This protein has a mass of approximately 24 kDa. Predominantly it is expressed in the central nervous system (CNS) specifically in oligodendrocyte precursor cells (OPCs) and mature oligodendrocytes. Its presence marks the differentiation stage of oligodendrocytes serving as an indicator of their development and maturation. |
| **Biological function summary** | The oligodendrocyte marker O4 plays a significant role in the myelination process supporting the formation of the myelin sheath around neurons. O4 does not act as part of a complex but is essential in the identification of oligodendrocyte lineage cells. During development it signals the transition of OPCs into mature myelinating oligodendrocytes which are necessary for effective neuronal signal transmission in the CNS. |
| **Pathways** | Oligodendrocyte marker O4 influences critical processes in the nervous system namely the myelination pathway. It interacts with various proteins including myelin basic protein (MBP) involved in the formation and maintenance of the myelin sheath. The presence of O4 marks the progression along the oligodendrocyte lineage and fits within the larger framework of CNS development and repair indicating a healthy state of neuronal insulation. |
| **Associated diseases and disorders** | Disruptions involving the oligodendrocyte marker O4 can relate to multiple sclerosis (MS) and leukodystrophies. These conditions arise from demyelination or abnormal myelination respectively. O4 in association with other proteins like MBP and proteolipid protein (PLP) can serve as a biomarker for disease activity and progression. Its expression levels may assist in the research and diagnosis of 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**

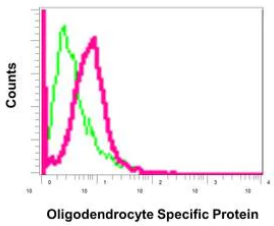
We do not recommend this combination. It is not covered by our product promise.

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.

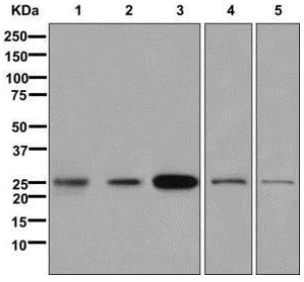
## 2 product images




### Flow Cytometry - Anti-Oligodendrocyte Specific Protein antibody [EPR12726] - Oligodendrocyte Marker (ab175236)

Oligodendrocyte Specific Protein Flow Cytometry staining using rabbit Anti-Oligodendrocyte Specific Protein antibody

Flow Cytometrical analysis of U87-MG cells labeling Oligodendrocyte Specific Protein with ab175236 antibody at a dilution of 1/100 (red) or a rabbit IgG (negative) (green).




### Western blot - Anti-Oligodendrocyte Specific Protein antibody [EPR12726] - Oligodendrocyte Marker (ab175236)

Oligodendrocyte Specific Protein Western blot staining using rabbit Anti-Oligodendrocyte Specific Protein antibody

All lanes:
Western blot - Anti-Oligodendrocyte Specific Protein antibody [EPR12726] - Oligodendrocyte Marker (ab175236) at 1/1000 dilution

Lane 1:
Human oligodendroglioma lysate at 10 µg

Lane 2:
U87-MG lysate at 10 µg

Lane 3:
SH-SY5Y lysate at 10 µg

Lane 4:
Fetal brain lysate at 10 µg

Lane 5:
Human testis lysate at 10 µg

Predicted band size: 22 kDa

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