abcam

ab249885

Anti-Oligodendrocyte Specific Protein antibody [EPR12726] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR12726
Purification technique	Affinity purification Protein A
Concentration	0.963 mg/mL The concentration of this product may be batch-dependent 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	-
Notes	-

Predicted

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

WB

Tested

Species	Human
Dilution info	-
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	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab249885 is the carrier-free version of ab175236.

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.

Conjugation ready

Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide

and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

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.

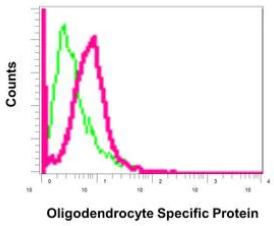
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

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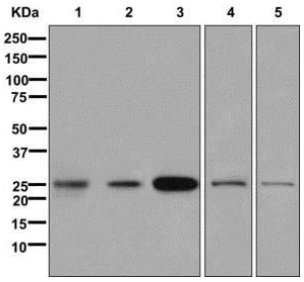
2 product images



Flow Cytometry - Anti-Oligodendrocyte Specific Protein antibody [EPR12726] - BSA and Azide free (ab249885)

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

This data was developed using ab175236, the same antibody clone in a different buffer formulation.
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] - BSA and Azide free (ab249885)

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

This data was developed using ab175236, the same antibody clone in a different buffer formulation.
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'.