abcam

ab170946

Anti-Myelin expression factor 2 antibody [EPR10774(B)]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR10774(B)
Purification technique	Affinity purification Protein A
Concentration	0.166 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	1/100 - 1/250

Notes	Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Not recommended

Species	Mouse
Dilution info	-
Notes	Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Species	Rat
Dilution info	-
Notes	Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

IP

Tested

Species	Human
Dilution info	1/10 - 1/100
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/10000 - 1/50000
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/100 - 1/250
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/10 - 1/100
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Not recommended

Species	Mouse
Dilution info	-
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Species	Rat
Dilution info	-

Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Target data

See full target information MYEF2

Function	Transcriptional repressor of the myelin basic protein gene (MBP). Binds to the proximal MB1 element 5'-TTGTCC-3' of the MBP promoter. Its binding to MB1 and function are inhibited by PURA (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	Myelin expression factor 2 also known as MYEF2 is a transcription repressor that regulates the transcription of myelin-specific genes. It plays an important role in the control of myelin production and is primarily expressed in the nervous system especially in oligodendrocytes. The factor weighs approximately 100 kDa and its expression is critical at the periods of neuronal development. MYEF2 demonstrates its activity within the cell nucleus where it functions directly on DNA to modulate gene expression.
Biological function summary	MYEF2 influences the differentiation and maturation of oligodendrocytes. These cells are responsible for forming the myelin sheath in the central nervous system which is essential for rapid impulse conduction along nerve fibers. MYEF2 does not act alone but integrates into complexes with other proteins such as histone deacetylases to exert its repressive function. This interaction fine-tunes oligodendrocyte activity ensuring proper neuronal insulation and function.
Pathways	MYEF2 interacts with the signaling cascades of myelination and neural development. In myelination pathways MYEF2 collaborates closely with proteins like SOX10 and OLIG1 both of which are vital for oligodendrocyte differentiation and maturation. Additionally MYEF2 associates indirectly with the Notch pathway affecting neural progenitor cell fate decisions. The integration of these pathways guarantees the precise regulation of myelin gene expression and hence normal nervous system function.
Associated diseases and disorders	MYEF2's dysregulation links to demyelinating diseases such as multiple sclerosis and certain leukodystrophies. In multiple sclerosis improper MYEF2 activity can lead to defective myelin production exacerbating disease symptoms and progression. MYEF2's function could also relate to disturbances in proteins like myelin basic protein (MBP) which is important for myelin integrity. Understanding MYEF2’s role in these disorders may offer insights for therapeutic targets to manage and treat neurological conditions involving myelin damage.

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

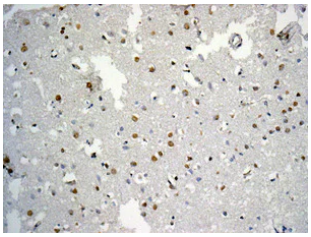
We do not recommend this combination. It is not covered by our product promise.

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.

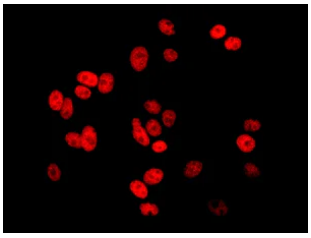
6 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Myelin expression factor 2 antibody [EPR10774(B)] (ab170946)

Myelin expression factor 2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Myelin expression factor 2 antibody

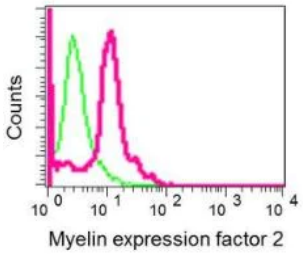
Immunohistochemistry analysis of Human brain tissue labeling Myelin expression factor 2 with ab170946 at 1/100 dilution.
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-Myelin expression factor 2 antibody [EPR10774(B)] (ab170946)

Myelin expression factor 2 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Myelin expression factor 2 antibody

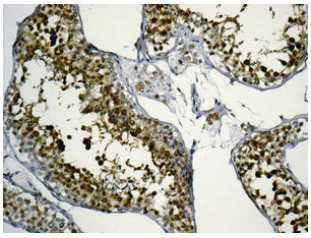
Immunofluorescence analysis of MCF7 cells labeling Myelin expression factor 2 with ab170946 at 1/100 dilution.



Flow Cytometry (Intracellular) - Anti-Myelin expression factor 2 antibody [EPR10774(B)] (ab170946)

Myelin expression factor 2 Flow Cytometry (Intracellular) staining using rabbit Anti-Myelin expression factor 2 antibody

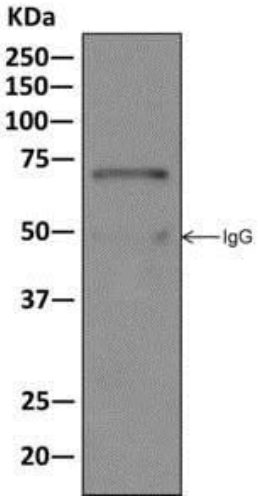
Intracellular flow cytometric analysis of permeabilized Jurkat cells labeling Myelin expression factor 2 with ab170946 at 1/10 in red and a rabbit IgG (negative control in green)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Myelin expression factor 2 antibody [EPR10774(B)] (ab170946)

Myelin expression factor 2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Myelin expression factor 2 antibody

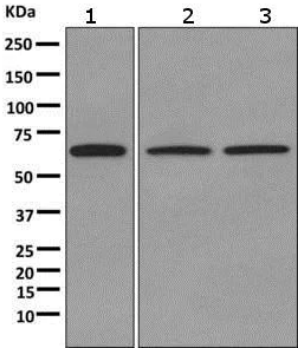
Immunohistochemistry analysis of paraffin-embedded Human testis tissue labeling Myelin expression factor 2 with ab170946 at 1/100 dilution.
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunoprecipitation - Anti-Myelin expression factor 2 antibody [EPR10774(B)] (ab170946)

Western blot analysis of immunoprecipitation pellet from Human fetal brain lysate, labeling Myelin expression factor 2 using ab170946 at a 1/10 dilution.
All lanes:
Immunoprecipitation - Anti-Myelin expression factor 2 antibody [EPR10774(B)] (ab170946)

Predicted band size: 64 kDa



Western blot - Anti-Myelin expression factor 2 antibody [EPR10774(B)] (ab170946)

All lanes:
Western blot - Anti-Myelin expression factor 2 antibody [EPR10774(B)] (ab170946) at 1/10000 dilution

Lane 1:
Human fetal brain tissue lysate at 10 µg

Lane 2:
Jurkat cell lysate at 10 µg

Lane 3:
MCF7 cell lysate at 10 µg

Predicted band size: 64 kDa

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