abcam

ab320291

Alexa Fluor® 647 Anti-PMP22 antibody [EPR23113-31]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Conjugation	Alexa Fluor® 647
Excitation/Emission	Ex: 650nm, Em: 665nm
Storage buffer	pH: 7.4 Preservative: 0.02% Sodium azide Constituents: PBS, 30% Glycerol (glycerin, glycerine), 1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR23113-31
Purification technique	Affinity purification Protein A

Reactivity data

Antibody Labelling

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.

Notes	-

Target Binding Affinity

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Flow Cyt

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

ICC/IF

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

IHC-P

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information PMP22

Function	Might be involved in growth regulation, and in myelinization in the peripheral nervous system.

Storage

Shipped at conditions	Blue Ice
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, Store in the dark

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.

How are conjugated primary antibodies validated?
This conjugated primary antibody is released using a quantitative quality control method that evaluates binding affinity post-conjugation and efficiency of antibody labeling.
For suitable applications and species reactivity, please refer to the unconjugated version of this clone.

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Supplementary info

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

Activity summary	The 'PMP22 protein' also known as Peripheral Myelin Protein 22 is an essential component of the myelin sheath in the peripheral nervous system. It has a molecular weight of approximately 22 kDa. The protein is highly expressed in Schwann cells which are responsible for forming myelin around peripheral nerves. PMP22 contains four transmembrane domains playing a role in its structural function in the membrane.
Biological function summary	The 'PMP22' serves an important role in maintaining the integrity and functionality of the myelin sheath contributing to efficient nerve conduction. It is not typically part of a complex but interacts with other myelin proteins to support myelin compaction and stability. The protein's presence affects the cell cycle and myelination process important for the normal functioning of the peripheral nervous system.
Pathways	'PMP22 protein' plays roles in the Schwann cell differentiation and myelination pathways. It maintains correct peripheral nerve structure and function with connections to proteins such as MPZ (Myelin Protein Zero) which are also integral for proper nerve insulation. There are specific pathways where PMP22 downregulation or overexpression impacts the normal myelination cycle significant for peripheral nerve health.
Associated diseases and disorders	'PMP 22' mutations or overexpression relate to Charcot-Marie-Tooth disease type 1A and Hereditary Neuropathy with Liability to Pressure Palsies (HNPP). These conditions arise from gene dosage changes affecting nerve function where altered PMP22 protein levels lead to defective myelin formation. Interaction between PMP22 and proteins like connexin 32 shows further ties to demyelinating neuropathies emphasizing the gene-protein network involved in these disorders.

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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