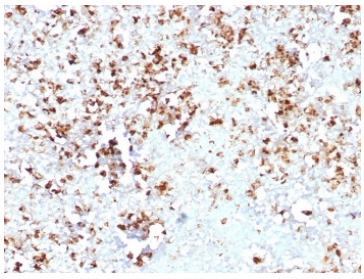
Myelin Protein Zero Antibody / P0 Antibody [clone MPZ/7389] (V4752)

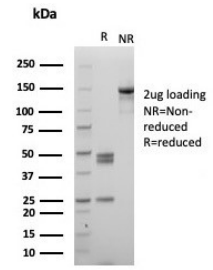
Catalog No.	Formulation	Size
V4752-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4752-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4752SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2a, kappa
Clone Name	MPZ/7389
Purity	Protein A/G affinity
UniProt	P25189
Localization	Membrane
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This Myelin Protein Zero Antibody / P0 Antibody is available for research use only.



Myelin Protein Zero Antibody Human Colon Carcinoma IHC. Immunohistochemical staining of FFPE human colon carcinoma tissue using Myelin Protein Zero Antibody / P0 Antibody (clone MPZ/7389) demonstrates cytoplasmic and membranous HRP-DAB brown staining within scattered malignant epithelial cells throughout the tumor tissue. The staining pattern is consistent with expression of MPZ (Myelin Protein Zero/P0), a transmembrane adhesion glycoprotein best known as the principal structural component of peripheral myelin. Positive immunoreactivity is observed within neoplastic cell populations and highlights the utility of this antibody for immunohistochemical detection of MPZ in FFPE human tissues. HIER: boil tissue sections in pH 9, 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



SDS-PAGE analysis of purified, BSA-free Myelin Protein Zero antibody (clone MPZ/7389) as confirmation of integrity and purity.

Description

Myelin Protein Zero Antibody / P0 Antibody recognizes Myelin Protein Zero (P0), the principal structural protein of peripheral nervous system myelin and the protein product of the MPZ gene. P0 is a transmembrane glycoprotein belonging to the immunoglobulin superfamily and functions as a homophilic adhesion molecule that binds adjacent layers of the myelin membrane together. This adhesive activity is essential for the formation of compact myelin, a specialized multilamellar structure that insulates axons and enables rapid nerve impulse conduction throughout the peripheral nervous system.

Myelin Protein Zero Antibody is widely used for studying myelin formation, maintenance, and organization. P0 constitutes more than half of the total protein content of peripheral myelin and plays a central role in establishing the highly ordered architecture required for efficient neuronal signaling. Expression of P0 is closely associated with Schwann cell maturation and myelin sheath development, making it one of the most important markers for investigations of peripheral nerve biology and myelination.

Myelin Protein Zero Antibody is also valuable for examining nerve development and regenerative processes. During peripheral nerve repair, Schwann cells coordinate axonal support, remyelination, and restoration of nerve function. Re-expression and proper organization of P0 are critical components of successful remyelination, and therefore P0 is frequently evaluated in studies investigating nerve injury, regeneration, and recovery. Analysis of P0 expression can provide important insights into the molecular mechanisms that govern peripheral nerve maintenance and repair.

Myelin Protein Zero Antibody has significant relevance in neurological disease research. Mutations in MPZ are associated with several inherited peripheral neuropathies, including Charcot-Marie-Tooth disease, Dejerine-Sottas syndrome, and congenital hypomyelinating neuropathy. These disorders are characterized by abnormalities in myelin structure, impaired nerve conduction, and progressive neurological dysfunction. As a result, P0 remains a critical biomarker for studies of myelin pathology, peripheral nerve degeneration, and therapeutic intervention strategies.

Myelin Protein Zero Antibody, clone MPZ/7389, supports research involving myelination, Schwann cell differentiation, peripheral nerve development, axon-glia interactions, nerve regeneration, and inherited neuropathies. Because P0 is the defining structural protein of peripheral myelin and an essential regulator of myelin compaction, it remains one of the most extensively studied markers in peripheral nervous system biology and translational neuroscience research.

Researchers studying myelination, peripheral nerve biology, and myelin structure may also be interested in our MPZ Antibody / Myelin Structural Protein Antibody.

Application Notes

Optimal dilution of the Myelin Protein Zero Antibody / P0 Antibody should be determined by the researcher.

Immunogen

Recombinant full-length human MPZ protein was used as the immunogen for the Myelin Protein Zero antibody.

Storage

Aliquot the Myelin Protein Zero antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

Myelin Protein Zero Antibody, P0 Antibody, MPZ Antibody, Protein Zero Antibody, Peripheral Myelin Protein Antibody, Major Peripheral Myelin Protein Antibody, Myelin Adhesion Protein Antibody, Myelin Glycoprotein Antibody

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