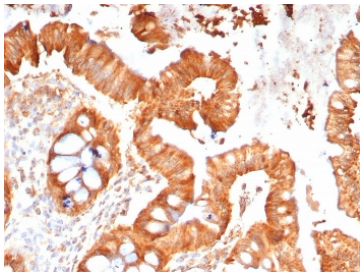
MPZ Antibody / Myelin Structural Protein Antibody [clone MPZ/7390] (V4754)

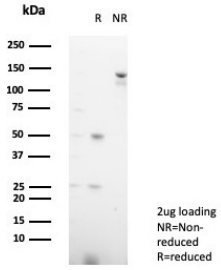
Catalog No.	Formulation	Size
V4754-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4754-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4754SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

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/7390
Purity	Protein A/G affinity
UniProt	P25189
Localization	Membrane
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This MPZ Antibody / Myelin Structural Protein Antibody is available for research use only.



MPZ Antibody Human Colon IHC. Immunohistochemical staining of FFPE human colon tissue using MPZ Antibody / Myelin Structural Protein Antibody (clone MPZ/7390) demonstrates strong cytoplasmic and membranous HRP-DAB brown staining within colonic epithelial cells lining the glandular structures. The staining pattern is consistent with expression of MPZ (Myelin Protein Zero), a cell adhesion glycoprotein best known for its role in myelin compaction and maintenance of peripheral nerve structure. Positive immunoreactivity within the colonic epithelium supports the utility of this antibody for IHC applications and demonstrates detectable MPZ expression in human colon tissue. 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 MPZ antibody (clone MPZ/7390) as confirmation of integrity and purity.

Description

MPZ Antibody / Myelin Structural Protein Antibody recognizes Myelin Protein Zero (MPZ, P0), the major structural protein of peripheral nervous system myelin. MPZ is a transmembrane glycoprotein belonging to the immunoglobulin superfamily and functions as a critical adhesion molecule that mediates homophilic interactions between adjacent layers of the myelin sheath. Through these adhesive properties, MPZ promotes myelin compaction and structural stability, making it essential for efficient nerve conduction and long-term maintenance of peripheral nerve integrity.

MPZ Antibody is widely used for studying myelination, Schwann cell biology, and peripheral nervous system development. During nerve maturation, Schwann cells produce multilamellar myelin sheaths that insulate axons and facilitate rapid saltatory conduction. MPZ represents the most abundant protein component of peripheral myelin and serves as a key marker of myelin formation and maintenance. Expression of MPZ is therefore frequently examined in studies investigating nerve development, axon-glia interactions, and the molecular mechanisms that regulate myelin assembly.

MPZ Antibody is also valuable for research involving peripheral nerve injury and regeneration. Following nerve damage, Schwann cells undergo extensive phenotypic changes that support axonal repair and remyelination. Because proper restoration of myelin architecture is required for functional recovery, MPZ expression is commonly monitored as an indicator of Schwann cell differentiation and successful remyelination. Analysis of MPZ can provide important insights into regenerative processes and the restoration of peripheral nerve function following injury.

MPZ Antibody has significant relevance in the study of inherited neuropathies and demyelinating disorders. Mutations in the MPZ gene have been linked to several peripheral nerve diseases, including forms of 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. Consequently, MPZ remains an important biomarker for investigations of peripheral neuropathy pathogenesis and therapeutic development.

MPZ Antibody, clone MPZ/7390, supports research involving myelination, nerve development, Schwann cell differentiation, peripheral nerve regeneration, and neurological disease. Because MPZ occupies a central role in the formation and maintenance of compact myelin, it remains one of the most widely studied structural proteins of the peripheral nervous system and an important target for neuroscience and translational research.

Researchers studying myelination, Schwann cell biology, nerve development, and cell adhesion may also be interested in our comprehensive collection of Cell Biology Antibodies.

Application Notes

Optimal dilution of the MPZ Antibody / Myelin Structural Protein Antibody should be determined by the researcher.

Immunogen

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

Storage

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

Alternate Names

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

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