MPZ Antibody / Myelin Protein Zero (RQ4363)

Catalog No.	Formulation	Size
RQ4363	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose and 0.025% sodium azide
UniProt	P25189
Localization	Cytoplasmic
Applications	Western blot: 0.5-1ug/ml Direct ELISA: 0.1-0.5ug/ml
Limitations	This MPZ antibody is available for research use only.



MPZ Antibody U-87 MG WB. Western blot analysis of human U-87 MG cell lysate using MPZ Antibody / Myelin Structural Protein Antibody. A distinct immunoreactive band is detected at approximately 28 kDa, consistent with the expected molecular weight of MPZ (Myelin Protein Zero/P0). MPZ is a transmembrane adhesion glycoprotein that functions as the principal structural component of peripheral myelin and is essential for myelin compaction and maintenance of normal nerve conduction. The detection of a single prominent band supports specific recognition of endogenous MPZ and demonstrates the utility of this antibody for western blot applications.

Description

MPZ Antibody recognizes MPZ (Myelin Protein Zero), commonly known as P0, a cell adhesion glycoprotein that serves as the primary structural component of peripheral myelin. MPZ is expressed predominantly by myelinating Schwann cells and is required for the formation of compact myelin surrounding peripheral axons. The extracellular domain of MPZ mediates homophilic adhesion between adjacent myelin membranes, while the cytoplasmic domain contributes to

stabilization of myelin architecture. These functions make MPZ essential for normal nerve conduction and long-term maintenance of peripheral nerve integrity.

Myelin Protein Zero Antibody is frequently used to study the molecular mechanisms that regulate myelin formation and maintenance. Proper expression of MPZ is necessary for Schwann cell maturation, myelin sheath assembly, and preservation of axonal function. Because myelin integrity is critical for rapid electrical signal transmission, MPZ has become a key marker for investigations of peripheral nervous system development and neuronal support mechanisms.

MPZ Antibody is also valuable for examining pathological changes associated with demyelination and nerve degeneration. Altered MPZ expression or function can disrupt myelin structure and contribute to neurological disease. Consequently, MPZ is commonly evaluated in studies of inherited neuropathies, peripheral nerve injury, and regenerative processes. Monitoring MPZ expression provides researchers with important information regarding myelin stability, Schwann cell activity, and the progression of nerve-related disorders.

Myelin Protein Zero / MPZ Antibody supports research involving peripheral nerve biology, myelin organization, axon-glia communication, and regenerative medicine. As one of the defining proteins of peripheral myelin, MPZ continues to serve as a valuable biomarker for studies focused on nervous system development, myelin-associated disease mechanisms, and therapeutic approaches designed to preserve or restore normal nerve function.

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 MPZ antibody should be determined by the researcher.

Immunogen

A recombinant human protein corresponding to amino acids I30-R153 was used as the immunogen for the MPZ antibody.

Storage

After reconstitution, the MPZ antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Copyright © NSJ Bioreagents. All rights reserved.