

Myelin Protein Zero Antibody



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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W, IF-F, IF-IC	Reactivity: H M R	Sensitivity: Endogenous	MW (kDa): 28	Source/Isotype: Rabbit	UniProt ID: #P27573	Entrez-Gene Id: 17528
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Product Usage Information

Application

Western Blotting
Immunofluorescence (Frozen)
Immunofluorescence (Immunocytochemistry)

Dilution

1:1000
1:1600
1:50 - 1:200

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. *Do not aliquot the antibody.*

Specificity/Sensitivity

Myelin Protein Zero Antibody recognizes endogenous levels of total Myelin Protein Zero protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Val218 of mouse Myelin Protein Zero protein. Antibodies are purified by peptide affinity chromatography.

Background

Myelin Protein Zero (MPZ, myelin P0) is a single pass membrane glycoprotein member of the IgG superfamily (1,2). MPZ is the most abundant myelin protein in the peripheral nervous system and acts as a major structural component of the peripheral myelin sheath (2,3). It has been shown that MPZ is necessary for normal myelin spiraling, compaction, and maintenance, with disruption of the *MPZ* gene leading to hypomyelination and degradation of associated axons (4).

Mutations in the *MPZ* gene have been associated with demyelinating peripheral neuropathies including Charcot-Marie-Tooth neuropathy type 1B (CMT1B), Dejerine-Sottas syndrome (DSS), and congenital hypomyelination (CH) (5,6).

Background References

1. D'Urso, D. et al. (1999) *J Neurosci* 19, 3396-403.
2. Roomi, M.W. et al. (1978) *Biochim Biophys Acta* 536, 112-21.
3. Greenfield, S. et al. (1973) *J Neurochem* 20, 1207-16.
4. Giese, K.P. et al. (1992) *Cell* 71, 565-76.
5. Hayasaka, K. et al. (1993) *Nat Genet* 5, 31-4.
6. Warner, L.E. et al. (1996) *Neuron* 17, 451-60.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IF-F:** Immunofluorescence (Frozen) **IF-IC:** Immunofluorescence (Immunocytochemistry)

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat

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