

For Research Use Only

MPZ / P0 Polyclonal antibody

Catalog Number: 10572-1-AP **14 Publications**



Basic Information

Catalog Number: 10572-1-AP	GenBank Accession Number: BC006491	Purification Method: Antigen affinity purification
Size: 150ul , Concentration: 1000 µg/ml by Nanodrop and 187 µg/ml by Bradford method using BSA as the standard;	GeneID (NCBI): 4359	Recommended Dilutions: WB 1:500-1:1000 IF 1:20-1:200
Source: Rabbit	UNIPROT ID: P25189	
Isotype: IgG	Full Name: myelin protein zero	
Immunogen Catalog Number: AG0848	Calculated MW: 28 kDa	
	Observed MW: 30 kDa	

Applications

Tested Applications: IF, WB, ELISA	Positive Controls: WB : Schwann cells, IF : myelinating SCs cells,
Cited Applications: IF, IHC, WB	
Species Specificity: human, mouse, rat	
Cited Species: human, rat, mouse, frog	

Background Information

MPZ (myelin protein zero), also known as P0, is a transmembrane glycoprotein that belongs to the immunoglobulin supergene family. Synthesized by myelin-forming Schwann cells, MPZ is the major structural protein component of myelin in the peripheral nervous system. It is involved in the formation and maintenance of compact myelin, and plays a role in the creation of an extracellular membrane face which guides the wrapping process and ultimately compacts adjacent lamellae. More than 120 mutations detected in the gene of MPZ cause various forms of hereditary neuropathy, which include Charcot-Marie-Tooth disease type 1B (CMT1B), CMT2, Dejerine-Sottas syndrome (DSS), and congenital hypomyelination neuropathy (CHN). This antibody can recognize endogenous MPZ and can be used as a marker of myelinating Schwann cells. MPZ can be detected the 25-30 kDa band by western blot. A band of 36 kDa could also be detected, which is a novel isoform of MPZ that contains an additional domain at the C-terminal (PMID: 22457349). It can also exist as a dimer (PMID: 12933931).

Notable Publications

Author	Pubmed ID	Journal	Application
Yoshihide Yamaguchi	29081003	Neurochem Res	WB
Xiaobao Gong	36218239	Phytother Res	WB,IF
Christoph Eckharter	26635533	Front Cell Neurosci	WB

Storage

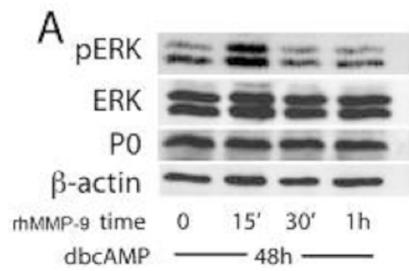
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
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Selected Validation Data



IF result from Huaqing Liu (PMID:20448483); Dual immunofluorescence for BrdU (red) with myelinating Schwann cell markers PO (10572-1-AP, green, 1:150) in distal segments of MMPI-treated nerves..

WB result from Chattopadhyay S (PMID:19229995); Schwann cell differentiation was induced with dbcAMP (500 μ M) for 48 h, followed by treatment with rhMMP-9 (100 nM) for 15 min. A, rhMMP-9 stimulates transient ERK1/2 activation over a 1 h period. Successful Schwann cell differentiation was confirmed by myelin protein zero (PO) expression, β -actin was used as loading control.