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MAG (D4G3) XP[®] Rabbit mAb

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, W-S, IP, IF-F	H M R	Endogenous	100	Rabbit IgG	#P20916	4099

Product Usage Information

Application

Western Blotting
Simple Western™
Immunoprecipitation
Immunofluorescence (Frozen)

Dilution

1:1000
1:10 - 1:50
1:50
1:100

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

For a carrier free (BSA and azide free) version of this product see product #51157.

Specificity/Sensitivity

MAG (D4G3) XP[®] Rabbit mAb recognizes endogenous levels of total MAG protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Arg605 of human MAG protein.

Background

Myelin-associated glycoprotein (MAG), which contains five immunoglobulin-like domains, is a highly glycosylated protein (1). MAG is a component of all myelinated internodes, whether formed by oligodendrocytes in the central nervous system (CNS) or by Schwann cells in the peripheral nervous system (PNS) (2), and has several functions. A known function of MAG is its inhibition of axonal regeneration after injury. It inhibits axonal outgrowth from adult dorsal root ganglion and in postnatal cerebellar, retinal, spinal, hippocampal, and superior cervical ganglion neurons (3). Interaction between MAG and several other molecules on the innermost wrap of myelin and complementary receptors on the opposing axon surface are required for long-term axon stability. Without MAG, myelin is still expressed, but long-term axon degeneration and altered axon cytoskeleton structure can be seen (4).

Background References

- Li, M. et al. (1996) *J Neurosci Res* 46, 404-14.
- Nguyen, T. et al. (2009) *J Neurosci* 29, 630-7.
- Yamashita, T. et al. (2002) *J Cell Biol* 157, 565-70.
- Mehta, N.R. et al. (2010) *ACS Chem Neurosci* 1, 215-222.

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 **W-S:** Simple Western™ **IP:** Immunoprecipitation **IF-F:** Immunofluorescence (Frozen)

Cross-Reactivity Key

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

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