Revision 1

#9086 Store at -20C

MAG Antibody

Cell Signaling TECHNOLOGY®

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB	H M R	Endogenous	100	Rabbit	#P20916	4099

Product Usage Information

Application	Dilution
Western Blotting	1:1000

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

MAG Antibody recognizes endogenous levels of total MAG protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Glu615 of human MAG protein. Antibodies are purified by protein A and peptide affinity chromatography.

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

1. Li, M. et al. (1996) *J Neurosci Res* 46, 404-14.
2. Nguyen, T. et al. (2009) *J Neurosci* 29, 630-7.
3. Yamashita, T. et al. (2002) *J Cell Biol* 157, 565-70.
4. 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

WB: Western Blotting

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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