10320 Camino Santa Fe, Suite G
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Tel: 858.875.1900 Fax: 858.875.1999

MAG Antibody (Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8845c

Specification

MAG Antibody (Center) - Product Information

Application	**WB, FC,E**
Primary Accession	P20916
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**69069**
Antigen Region	**439-466**

MAG Antibody (Center) - Additional Information

Gene ID 4099

Other Names
Myelin-associated glycoprotein, Siglec-4a, MAG, GMA

Target/Specificity
This MAG antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 439-466 amino acids from the Central region of human MAG.

Dilution
WB~~1:2000
FC~~1:10~50

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
MAG Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

MAG Antibody (Center) - Protein Information

Name MAG

Synonyms GMA

Function Adhesion molecule that mediates interactions between myelinating cells and neurons by binding to neuronal sialic acid- containing gangliosides and to the glycoproteins RTN4R and RTN4RL2 (By similarity). Not required for initial myelination, but seems to play a role in the maintenance of normal axon myelination. Protects motoneurons against apoptosis, also after injury; protection against apoptosis is probably mediated via interaction with neuronal RTN4R and RTN4RL2. Required to prevent degeneration of myelinated axons in adults; this probably depends on binding to gangliosides on the axon cell membrane (By similarity). Negative regulator of neurite outgrowth; in dorsal root ganglion neurons the inhibition is mediated primarily via binding to neuronal RTN4R or RTN4RL2 and to a lesser degree via binding to neuronal gangliosides. In cerebellar granule cells the inhibition is mediated primarily via binding to neuronal gangliosides. In sensory neurons, inhibition of neurite extension depends only partially on RTN4R, RTN4RL2 and gangliosides. Inhibits axon longitudinal growth (By similarity). Inhibits axon outgrowth by binding to RTN4R (By similarity). Preferentially binds to alpha-2,3-linked sialic acid. Binds ganglioside Gt1b (By similarity).

Cellular Location
Cell membrane; Single-pass type I membrane protein Membrane raft {ECO:0000250|UniProtKB:P07722}

Tissue Location
Both isoform 1 and isoform 2 are detected in myelinated structures in the central and peripheral nervous system, in periaxonal myelin and at Schmidt-Lanterman incisures (PubMed:6200494, PubMed:9495552). Detected in optic nerve, in oligodendroglia and in periaxonal myelin sheaths (PubMed:6200494). Detected in compact myelin (at protein level) (PubMed:6200494). Both isoform 1 and isoform 2 are detected in the central and peripheral nervous system (PubMed:9495552)

MAG Antibody (Center) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

MAG Antibody (Center) - Images

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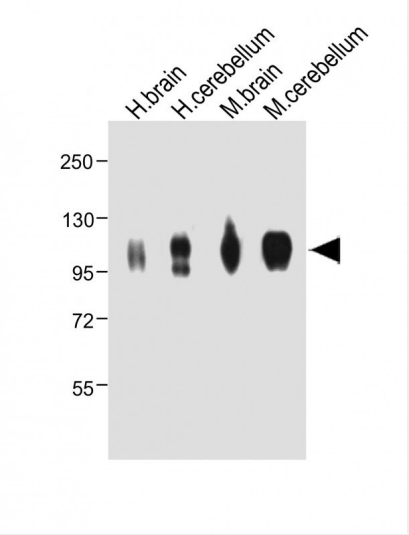
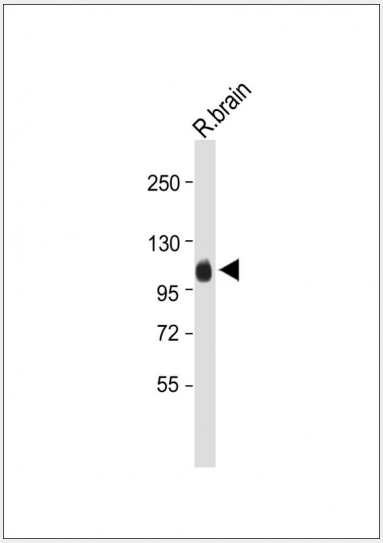


All lanes : Anti-MAG Antibody (Center) at 1:2000 dilution Lane 1: Human brain whole tissue lysate Lane 2: Human cerebellum whole tissue lysate Lane 3: Mouse brain whole tissue lysate Lane 4: Mouse cerebellum whole tissue lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 69 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Anti-MAG Antibody (Center) at 1:2000 dilution + Rat brain whole tissue lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 69 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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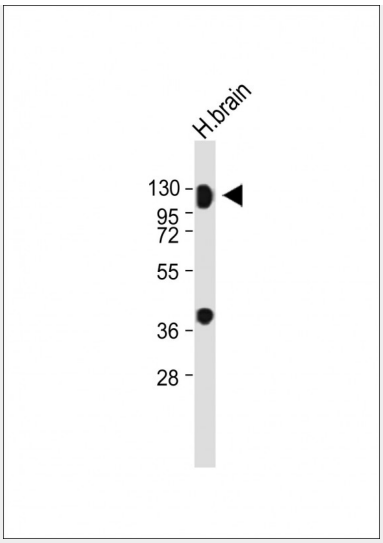

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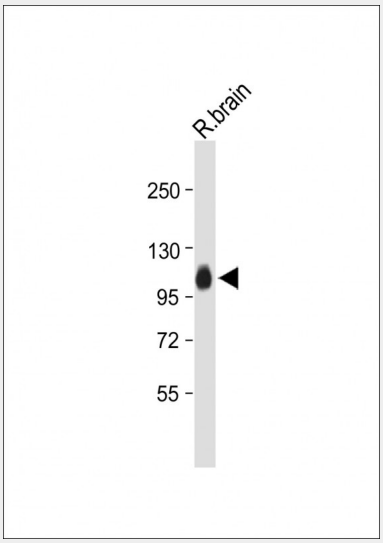

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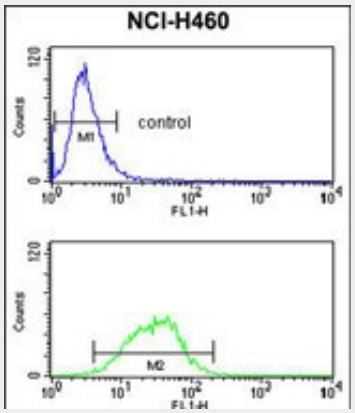

MAG Antibody (Center) (Cat. #AP8845c) flow cytometry analysis of NCI-H460 cells (bottom

histogram) compared to a negative control cell (top histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

MAG Antibody (Center) - Background

MAG is a type I membrane protein and member of the immunoglobulin uperfamily. It is thought to be involved in the process of myelination. It is a lectin that binds to sialylated glycoconjugates and mediates certain myelin-neuron cell-cell interactions.

MAG Antibody (Center) - References

Stalder,A.K.,et.al.,J. Neuropathol. Exp. Neurol. 68 (2), 148-158 (2009)