

### **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,

Host Rabbit
Clonality Polyclonal
Isotype Rabbit Ig
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**

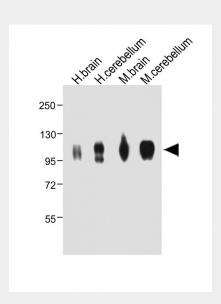
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

# **Storage**

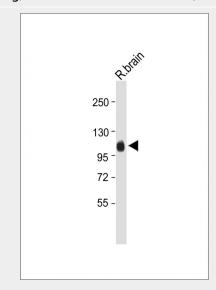
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

#### **Precautions**

MAG Antibody (Center) is for research use only and not for use in diagnostic or



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



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 acidcontaining 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).

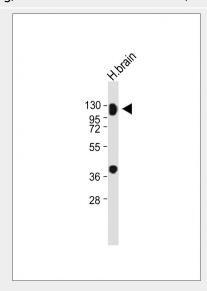
## **Cellular Location**

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

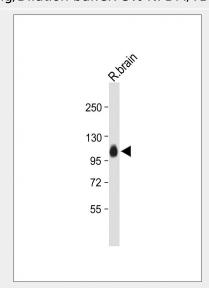
## **Tissue Location**

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:9495552, PubMed:6200494). Detected in optic nerve, in oligodendroglia and in periaxonal myelin sheaths (PubMed:6200494). Detected in compact

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.



Anti-MAG Antibody (Center) at 1:2000 dilution + Human 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.



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.

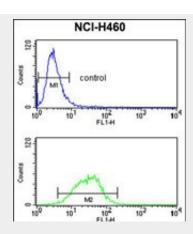


myelin (at protein level) (PubMed:6200494). Both isoform 1 and isoform 2 are detected in the central and peripheral nervous system (PubMed:9495552)

# **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
- <u>Immunoprecipitation</u>
- Flow Cvtometv
- Cell Culture



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)