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MAG Antibody

Rabbit mAb
Catalog # AP92300

Product Information

Application	WB, FC, IP
Primary Accession	P20916
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Other Names	GMA; MAG; S MAG; SIGLEC4A; SPG75;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	69069

Additional Information

Dilution	WB 1:500~1:2000 IP 1:50 FC 1:20
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human MAG
Description	Adhesion molecule in postnatal neural development that mediates sialic-acid dependent cell-cell interactions between neuronal and myelinating cells. Preferentially binds to alpha-2,3-linked sialic acid.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

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).

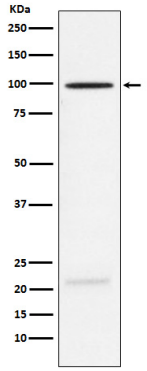
Cellular Location

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)

Images



Western blot analysis of MAG expression in Rat brain lysate.