

MAG (H-300): sc-15324

BACKGROUND

Myelin-associated glycoprotein (MAG) is a nervous system cell-surface adhesion protein that is involved in linking myelinating glial cells to neuronal axons. MAG contains a sialic acid binding site and five IgG-like domains, thus identifying MAG as a member of a subgroup of the immunoglobulin superfamily. Like myelin, MAG inhibits axonal outgrowth and contributes to the inhibitory properties of myelin. Growth inhibition by MAG has been shown to be blocked when cerebellar neurons are pre-incubated with the neurotrophins BDNF or GDNF. It is suggested that this neurotrophin priming elevates cAMP and activates PKA.

CHROMOSOMAL LOCATION

Genetic locus: MAG (human) mapping to 19q13.12; Mag (mouse) mapping to 7 B1.

SOURCE

MAG (H-300) is a rabbit polyclonal antibody raised against amino acids 1-300 mapping near the N-terminus of MAG of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

MAG (H-300) is recommended for detection of MAG of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

MAG (H-300) is also recommended for detection of MAG in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for MAG siRNA (h): sc-35841, MAG siRNA (m): sc-35842, MAG shRNA Plasmid (h): sc-35841-SH, MAG shRNA Plasmid (m): sc-35842-SH, MAG shRNA (h) Lentiviral Particles: sc-35841-V and MAG shRNA (m) Lentiviral Particles: sc-35842-V.

Molecular Weight of MAG: 100 kDa.

Positive Controls: rat brain extract: sc-2392 or mouse brain extract: sc-2253.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

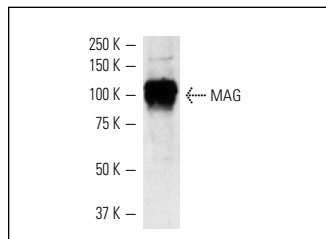
PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

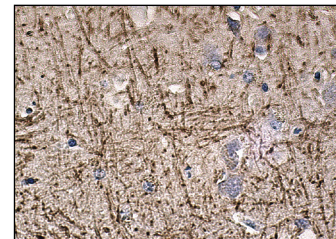
RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



MAG (H-300): sc-15324. Western blot analysis of MAG expression in mouse brain tissue extract.



MAG (H-300): sc-15324. Immunoperoxidase staining of formalin fixed, paraffin-embedded human brain tissue showing positive staining in neuropil.

SELECT PRODUCT CITATIONS

- Pott, F., et al. 2009. Cuprizone effect on myelination, astrogliosis and microglia attraction in the mouse basal ganglia. *Brain Res.* 1305: 137-149.
- Tanemura, K., et al. 2009. Intrauterine environment-genome interaction and children's development 2: Brain structure impairment and behavioral disturbance induced in male mice offspring by a single intraperitoneal administration of domoic acid (DA) to their dams. *J. Toxicol. Sci.* 34: SP279-SP286.
- Liu, A.M., et al. 2010. Umbilical cord-derived mesenchymal stem cells with forced expression of hepatocyte growth factor enhance remyelination and functional recovery in a rat intracerebral hemorrhage model. *Neurosurgery* 67: 357-365.
- Gomez, O., et al. 2010. The constitutive production of the endocannabinoid 2-arachidonoylglycerol participates in oligodendrocyte differentiation. *Glia* 58: 1913-1927.
- Gomez, O., et al. 2011. Cannabinoid receptor agonists modulate oligodendrocyte differentiation by activating PI3K/Akt and the mammalian target of rapamycin (mTOR) pathways. *Br. J. Pharmacol.* 163: 1520-1532.
- Blaise, S., et al. 2012. *In vivo* evidence that TRAF4 is required for central nervous system myelin homeostasis. *PLoS ONE* 7: e30917.
- Bribián, A., et al. 2012. Role of the cellular prion protein in oligodendrocyte precursor cell proliferation and differentiation in the developing and adult mouse CNS. *PLoS ONE* 7: e33872.



Try **MAG (A-11): sc-166849** or **MAG (G-11): sc-166780**, our highly recommended monoclonal alternatives to MAG (H-300).