

MAG (C-20): sc-9542

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.

REFERENCES

- Lai, C., et al. 1987. Neural protein 1B236/myelin-associated glycoprotein (MAG) defines a subgroup of the immunoglobulin superfamily. *Immunol. Rev.* 100: 129-151.
- McKerracher, L., et al. 1994. Identification of myelin-associated glycoprotein as a major myelin-derived inhibitor of neurite growth. *Neuron* 13: 805-811.
- Quarles, R.H. 1997. Glycoproteins of myelin sheaths. *J. Mol. Neurosci.* 8: 1-12.
- Collins, B.E., et al. 1997. Sialic acid specificity of myelin-associated glycoprotein binding. *J. Biol. Chem.* 272: 1248-1255.
- Shen, Y.J., et al. 1998. Myelin-associated glycoprotein in myelin and expressed by Schwann cells inhibits axonal regeneration and branching. *Mol. Cell. Neurosci.* 12: 79-91.
- Cai, D., et al. 1999. Prior exposure to neurotrophins blocks inhibition of axonal regeneration by MAG and myelin via a cAMP-dependent mechanism. *Neuron* 22: 89-101.

CHROMOSOMAL LOCATION

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

SOURCE

MAG (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at 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.

Blocking peptide available for competition studies, sc-9542 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

RESEARCH USE

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

APPLICATIONS

MAG (C-20) 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), immunofluorescence (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 (C-20) 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.

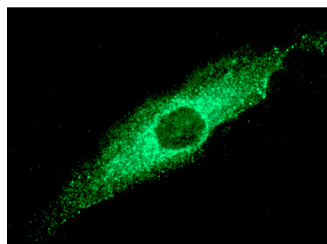
Molecular Weight of MAG: 100 kDa.

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

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



MAG (C-20): sc-9542. Immunofluorescence staining of methanol-fixed SK-N-SH cells showing membrane localization.

PROTOCOLS

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

MONOS
Satisfaction
Guaranteed

Try **MAG (A-11): sc-166849** or **MAG (G-11): sc-166780**, our highly recommended monoclonal alternatives to MAG (C-20).