

MAG (A-11): sc-166849



The Power to Question

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 (A-11) is a mouse monoclonal antibody raised against amino acids 1-300 mapping near the N-terminus of MAG of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

MAG (A-11) is available conjugated to agarose (sc-166849 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166849 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166849 PE), fluorescein (sc-166849 FITC), Alexa Fluor® 488 (sc-166849 AF488), Alexa Fluor® 546 (sc-166849 AF546), Alexa Fluor® 594 (sc-166849 AF594) or Alexa Fluor® 647 (sc-166849 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166849 AF680) or Alexa Fluor® 790 (sc-166849 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

MAG (A-11) is recommended for detection of MAG of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

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.

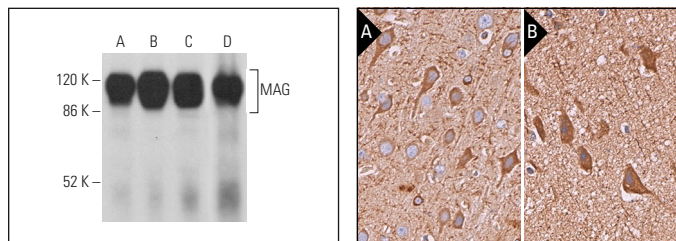
Molecular Weight of MAG: 100 kDa.

Positive Controls: mouse brain extract: sc-2253, human brain extract: sc-364375 or human cerebral cortex extract: sc-516707.

STORAGE

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

DATA



MAG (A-11): sc-166849. Western blot analysis of MAG expression in mouse brain (A), human brain (B), human cerebral cortex (C) and rat hippocampus (D) tissue extracts. Detection reagent used: m-IgGκ BP-HRP: sc-516102.

MAG (A-11): sc-166849. Immunoperoxidase staining of formalin fixed, paraffin-embedded rat brain tissue showing cytoplasmic staining of neuronal cells, glial cells and endothelial cells and neuropil staining (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human cerebral cortex tissue showing cytoplasmic staining of neuronal cells and neuropil staining (B).

SELECT PRODUCT CITATIONS

- Mk, H., et al. 2016. Association of Notch4 with metastasis in human oral squamous cell carcinoma. *Life Sci.* 156: 38-46.
- McFerrin, J., et al. 2017. NTE/PNPLA6 is expressed in mature Schwann cells and is required for glial ensheathment of Remak fibers. *Glia* 65: 804-816.
- Chen, T.J., et al. 2018. *In vivo* regulation of oligodendrocyte precursor cell proliferation and differentiation by the AMPA-receptor subunit GluA2. *Cell Rep.* 25: 852-861.e7.
- González-Fernández, E., et al. 2018. PTEN negatively regulates the cell lineage progression from NG2⁺ glial progenitor to oligodendrocyte via mTOR-independent signaling. *Elife* 7: e32021.
- Gazzin, S., et al. 2020. Curcumin prevents cerebellar hypoplasia and restores the behavior in hyperbilirubinemic Gunn rat by a pleiotropic effect on the molecular effectors of brain damage. *Int. J. Mol. Sci.* 22: 299.
- Feng, T., et al. 2021. Protective effects of edaravone on white matter pathology in a novel mouse model of Alzheimer's disease with chronic cerebral hypoperfusion. *J. Cereb. Blood Flow Metab.* 41: 1437-1448.
- Khawaja, R.R., et al. 2021. GluA2 overexpression in oligodendrocyte progenitors promotes postinjury oligodendrocyte regeneration. *Cell Rep.* 35: 109147.
- Kim, K.P., et al. 2021. Donor cell memory confers a metastable state of directly converted cells. *Cell Stem Cell* 28: 1291-1306.e10.
- Ahmed, S., et al. 2021. Early influences of microbiota on white matter development in germ-free piglets. *Front. Cell. Neurosci.* 15: 807170.

RESEARCH USE

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