

DESCRIPTION

Species Reactivity	Rat
Specificity	Detects rat MAG/Siglec-4a in direct ELISAs and Western blots.
Source	Monoclonal Mouse IgG _{2A} Clone # 118423
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant rat MAG/Siglec-4a Gly20-Pro516 Accession # P07722
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Neutralization	Optimal dilution of this antibody should be experimentally determined.
Western Blot	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

MAG (Myelin-Associated Glycoprotein), a type I transmembrane glycoprotein containing five Ig-like domains in its extracellular domain is an adhesion molecule belonging to the immunoglobulin superfamily. Within this superfamily, MAG, CD22, CD33, Schwann cell myelin protein, and sialoadhesin which bind specifically to cell-surface glycan containing sialic acid residues define the I-type sialyl lectin subgroup, also called the sialoadhesin family. Sialoadhesins mediate diverse biological processes through recognition of specific sialylated glycans on cell surface. MAG is expressed on myelinating oligodendrocytes and Schwann cells, and preferentially recognizes α2, 3-linked sialic acid on O-linked glycans and gangliosides. MAG exists as two isoforms which differ in the sequence and length of the cytoplasmic tail. The large form (71 kDa) and small form (67 kDa) arise from alternative spliced mRNAs. Although MAG might encounter haematopoietic cells and lymphocytes under pathologic conditions, it would normally be expected to interact with neuronal cells. It has been shown that MAG promotes axonal growth from neonatal DRG neurons and embryonic spinal neurons, but is a potent inhibitor of axonal re-growth from adult DRG and postnatal cerebellar neurons. MAG plays an important role in the interaction between axons and myelin. A soluble form of MAG containing the extracellular domain is released from myelin in large quantities and identified in normal human tissues and in tissues from patients with neurological disorders. This soluble MAG might contribute to the lack of CNS neuron regeneration after injury.

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