

MAG/Siglec-4a Protein, Mouse (HEK293, His)

Cat. No.:	HY-P70319
Synonyms:	rMuMyelin-associated glycoprotein/MAG, His; Myelin-Associated Glycoprotein; MAG; Siglec-4a
Species:	Mouse
Source:	HEK293
Accession:	P20917 (G20-P516)
Gene ID:	17136
Molecular Weight:	70-120 kDa

PROPERTIES

AA Sequence	<pre> GHWGAWMPST ISAFEGTCVS IPCRFDFPDE LRPVVHGVW YFNSPYPKNY PPVVFKSRTQ VVHESFQGRS RLLGDLGLRN CTLLLSLSTLSP ELGGKYYFRG DLGGYNQYTF SEHSVLDIVN TPNIVVPPPEV VAGTEVEVSC MVPDNCPELR PELSWLGHEG LGEPTVLGRL REDEGTWVQV SLLHFVPTRE ANGHRLGCQA AFPNTTLQFE GYASLDVKYP PVIEMNSSV EAIEGSHVSL LCGADSNPPP LLTWMRDGMV LREAVAKSLY LDLEEVTPGE DGVYACLAEN AYGQDNRTVE LSVMYAPWKP TVNGTVVAVE GETVSI LCST QSNPDPILTI FKEKQILATV IYESQLQLEL PAVTPEDDGE YWCVAENQYG QRATAFNLSV EFAPIILLES HCAAARDTVQ CLCVVKSNPE PSVAFELPSR NVTVNETERE FVYSERSGLL LTSILTIRGQ AQAPPRVICT SRNLYGTQSL ELPFQGAHRL MWAKIGP </pre>
Biological Activity	Measured by its ability to inhibit SH-SY5Y growth. The ED ₅₀ for this effect is 3.129 µg/mL, corresponding to a specific activity is 319.59 units/mg.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of 20 mM HEPES, 150 mM NaCl, 1 mM EDTA, pH 7.0 or 20 mM PB, 150 mM NaCl, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

The MAG/Siglec-4a protein is an adhesion molecule that plays a crucial role in mediating interactions between myelinating cells and neurons. It achieves this by binding to neuronal gangliosides containing sialic acid and to the glycoproteins RTN4R and RTN4RL2. While it is not necessary for initial myelination, it is involved in maintaining normal axon myelination. Additionally, it offers protection against apoptosis in motoneurons, particularly after injury, likely through its interaction with neuronal RTN4R and RTN4RL2. In adults, it is essential for preventing the degeneration of myelinated axons, and this process is likely dependent on its binding to gangliosides on the axon cell membrane. Moreover, the MAG/Siglec-4a protein acts as a negative regulator of neurite outgrowth by inhibiting axon growth longitudinally. Its inhibitory effects on neurite extension are mediated primarily through its interaction with neuronal RTN4R, RTN4RL2, and gangliosides. It binds preferentially to alpha-2,3-linked sialic acid and ganglioside Gt1b. The MAG/Siglec-4a protein can exist as a monomer or homodimer and interacts with isoform 2 of BSG through its first three N-terminal Ig-like domains.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA