

**Anti-Siglec-4a / MAG Reference Antibody (refanezumab)  
Recombinant Antibody  
Catalog # APR10175**

**Specification**

---

**Anti-Siglec-4a / MAG Reference Antibody (refanezumab) - Product Information**

Application	FC, E, FTA
Primary Accession	<a href="#">P20916</a>
Reactivity	Rat, Human
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	148.36 KDa

**Anti-Siglec-4a / MAG Reference Antibody (refanezumab) - Additional Information**

**Target/Specificity**  
Siglec-4a / MAG

**Endotoxin**  
< 0.001EU/ µg,determined by LAL method.

**Conjugation**  
Unconjugated

**Expression system**  
CHO Cell

**Format**  
Purified monoclonal antibody supplied in PBS, pH6.0, without preservative.This antibody is purified through a protein A column.

**Anti-Siglec-4a / MAG Reference Antibody (refanezumab) - Protein Information**

**Name** MAG

**Synonyms** GMA

**Function**  
Adhesion molecule that mediates interactions between myelinating cells and neurons by binding to neuronal sialic acid- containing gangliosides and to the glycoproteins RTN4R and RTN4RL2 (By similarity). Not required for initial myelination, but seems to play a role in the maintenance of normal axon myelination. Protects motoneurons against apoptosis, also after injury; protection against apoptosis is probably mediated via interaction with neuronal RTN4R and RTN4RL2. Required to prevent degeneration of myelinated axons in adults; this probably depends on binding to gangliosides on the axon cell membrane (By similarity). Negative regulator of neurite outgrowth; in dorsal root ganglion neurons the inhibition is mediated primarily via binding to neuronal RTN4R or RTN4RL2 and to a lesser degree via binding to neuronal gangliosides. In cerebellar granule cells the inhibition is mediated primarily via binding to neuronal gangliosides. In

sensory neurons, inhibition of neurite extension depends only partially on RTN4R, RTN4RL2 and gangliosides. Inhibits axon longitudinal growth (By similarity). Inhibits axon outgrowth by binding to RTN4R (By similarity). Preferentially binds to alpha-2,3-linked sialic acid. Binds ganglioside Gt1b (By similarity).

#### Cellular Location

Cell membrane; Single-pass type I membrane protein Membrane raft  
{ECO:0000250|UniProtKB:P07722}

#### Tissue Location

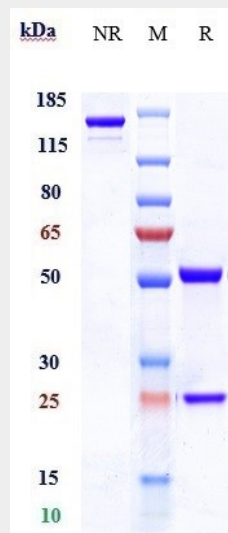
Both isoform 1 and isoform 2 are detected in myelinated structures in the central and peripheral nervous system, in periaxonal myelin and at Schmidt-Lanterman incisures (PubMed:6200494, PubMed:9495552). Detected in optic nerve, in oligodendroglia and in periaxonal myelin sheaths (PubMed:6200494). Detected in compact myelin (at protein level) (PubMed:6200494). Both isoform 1 and isoform 2 are detected in the central and peripheral nervous system (PubMed:9495552)

### Anti-Siglec-4a / MAG Reference Antibody (refanezumab) - Protocols

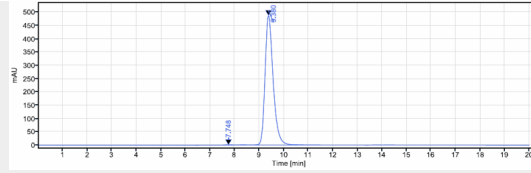
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

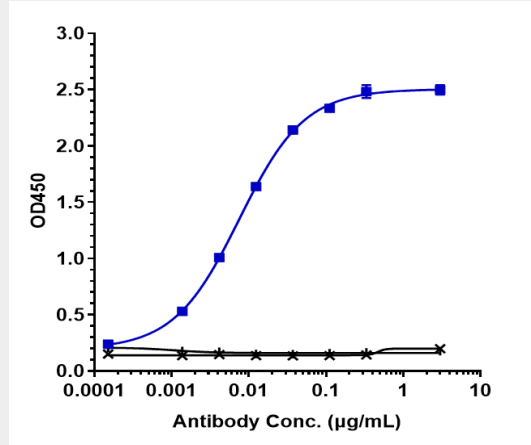
### Anti-Siglec-4a / MAG Reference Antibody (refanezumab) - Images



Anti-Siglec-4a / MAG Reference Antibody (refanezumab) on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%



The purity of Anti-Siglec-4a / MAG Reference Antibody (refanezumab) is more than 99.41%, determined by SEC-HPLC.



Immobilized human Siglec 4a / MAG, Fc tag at 2 µg/mL can bind Anti-Siglec-4a / MAG Reference Antibody (refanezumab)  $EC_{50} = 0.007489 \mu\text{g/mL}$