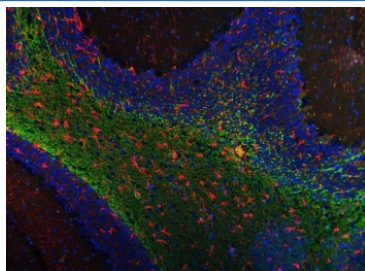


Siglec-4a Antibody / MAG / Myelin-associated glycoprotein [clone 2G11] (RQ6281)

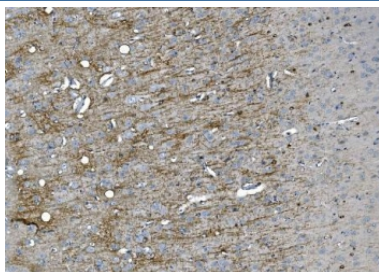
Catalog No.	Formulation	Size
RQ6281	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

[Bulk quote request](#)

Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2a
Clone Name	2G11
Purity	Affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P20916
Applications	Western Blot : 1-2ug/ml Immunohistochemistry (FFPE) : 2-5ug/ml Flow Cytometry : 1-3ug/million cells Immunofluorescence : 5ug/ml
Limitations	This Siglec-4a antibody is available for research use only.



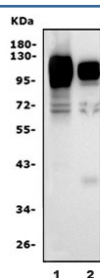
Immunofluorescent staining of FFPE rat cerebellum tissue with Siglec-4a antibody (green), GFAP antibody (red) and DAPI nuclear stain (blue). HIER: steam section in pH6 citrate buffer for 20 min.



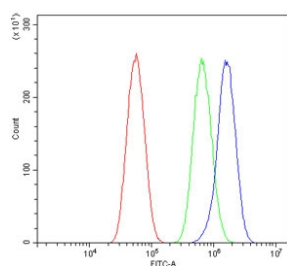
IHC staining of FFPE rat brain with Siglec-4a antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



IHC staining of FFPE mouse brain with Siglec-4a antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Western blot testing of 1) rat brain and 2) mouse brain lysate with Siglec-4a antibody. Expected molecular weight: 68-98 kDa, depending on level of glycosylation.



Flow cytometry testing of human U-87 mG cells with Siglec-4a antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= Siglec-4a antibody.

Description

MAG (Myelin-associated glycoprotein), also known as Siglec-4a, is a cell membrane glycoprotein that is a member of the SIGLEC family of proteins and is a functional ligand of the Nogo-66 receptor, NgR. It is thought to be involved in the process of myelination. MAG is a sialic acid-binding SIGLEC protein and is a functional ligand for the Nogo receptor. The MAG gene is mapped on 19q13.12. Cleavage of GPI-linked proteins from axons protects growth cones from MAG-induced collapse, and dominant-negative NgR eliminates MAG inhibition of neurite outgrowth. MAG-resistant embryonic neurons were rendered MAG-sensitive by expression of NgR. MAG binds specifically to an NgR-expressing cell line in a GPI-dependent and sialic acid-independent manner. Experiments blocking NgR from interacting with MAG prevented inhibition of neurite outgrowth by MAG. In cultured human embryonic kidney (HEK) cells expressing the Nogo receptor, p75(NTR) was required for MAG-induced intracellular calcium elevation.

Application Notes

Optimal dilution of the Siglec-4a antibody should be determined by the researcher.

Immunogen

A human recombinant partial protein (amino acids E34-R605) was used as the immunogen for the Siglec-4a antibody.

Storage

After reconstitution, the Siglec-4a antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.