

## Monoclonal Antibody to Siglec-H (286-304) - Purified

**Catalog No.:** AM32892PU-N

**Quantity:** 0.5 mg

**Concentration:** 0.5 mg/ml

**Background:** Siglec-H, or sialic acid binding immunoglobulin-like lectin H, is a CD33 related protein expressed specifically by plasmacytoid dendritic cells or pDCs (1, 2). Antigen-mediated delivery by Siglec-H in pDCs inhibits Th cell proliferation and further antibody responses. This leads to lessened expansion and Th1/Th17 polarization (3). Constant and low density antigen presentation by Siglec-H is thought to lead to an exhaustive type lessening of the response in CD4+ cells but not tolerance. A number of pathways have been proposed for the Siglec-H induced T cell hyporesponsiveness. Ever decreasing activation cycles in the presence of low level but continuous antigen delivery, as that observed with Siglec-H, have also been demonstrated to impart FoxP3+ Tregs immunosuppressive tolerogen-like effects (4, 5). Ability to identify and control Siglec-H antigen mediated delivery activities with specific antibody provides a focal point for potential development of inflammation controls.

**Uniprot ID:** [Q3Y597](#)

**NCBI:** [10090](#)

**Host / Isotype:** Rat / IgG2a

**Recommended Isotype Controls:** SM15P, SM15PX

**Clone:** IMG23M14A10

**Immunogen:** A portion of amino acids 275-325 of Mouse Siglec-H

**Format:** **State:** Liquid purified IgG fraction  
**Purification:** Protein G Chromatography  
**Buffer System:** PBS  
**Preservatives:** 0.05% Sodium Azide  
**Stabilizers:** 0.05% BSA

**Applications:** **Flow Cytometry (CS):** 1 µg/10<sup>6</sup> cells.  
**Western blot analysis:** 3-5 µg/ml  
**Immunohistochemistry on Paraffin Sections:** 5 µg/ml.  
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

**Specificity:** This antibody recognizes Mouse Siglec-H.  
Other species not tested.

**Storage:**

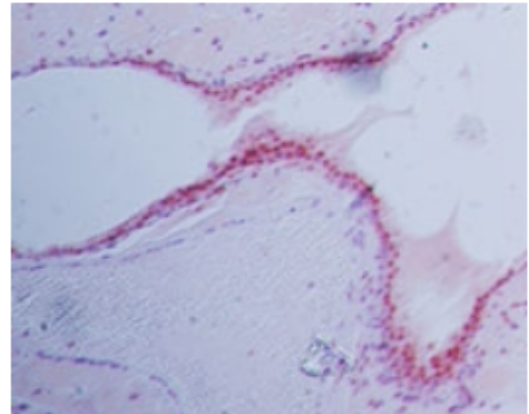
Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.  
Avoid repeated freezing and thawing.  
Shelf life: one year from despatch.

**General Readings:**

1. Apostolou I, von Boehmer H. In vivo instruction of suppressor commitment in naive T cells. *J Exp Med*. 2004 May 17;199(10):1401-8. PubMed PMID: 15148338.
2. Kang HK, Liu M, Datta SK. Low-dose peptide tolerance therapy of lupus generates plasmacytoid dendritic cells that cause expansion of autoantigen-specific regulatory T cells and contraction of inflammatory Th17 cells. *J Immunol*. 2007 Jun 15;178(12):7849-58. PubMed PMID: 17548623.
3. Zhang J, Raper A, Sugita N, Hingorani R, Salio M, Palmowski MJ, et al. Characterization of Siglec-H as a novel endocytic receptor expressed on murine plasmacytoid dendritic cell precursors. *Blood*. 2006 May 1;107(9):3600-8. Epub 2006 Jan 5. PubMed PMID: 16397130.
4. Loschko, J et al. 2011 Antigen targeting to Plasmacytoid Dendritic Cells via Siglec-H inhibits Th-Cell-Independent Autoimmunity. *J. Immunol* 187 doi: 10-4019/jimmunol. 11 02307.
5. [http://www.copewithcytokines.de/cope.cgi?key=SIGLEC-H\\_\\_REFERENCES](http://www.copewithcytokines.de/cope.cgi?key=SIGLEC-H__REFERENCES)

**Pictures:**

Immunohistochemical analysis of Siglec-H in mouse lung tissue using Siglec-H antibody at 5 µg/ml.



Western blot analysis of Siglec-H in mouse heart lysate using Siglec-H antibody at 3 µg/ml.

