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Monoclonal Antibody to Siglec-H (50-100) - Purified

Catalog No.: AM32902PU-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: IMG23M15C8

Immunogen: A portion of amino acids 50-100 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:
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.
DO NOT FREEZE!
This products is photosensitive and should be protected from light.
Shelf life: one year from despatch.

General Readings:

1. http://www.copewithcytokines.de/cope.cgi?key=SIGLEC-H__REFERENCES
2. Loschko, J et al. 2011 Antigen targeting to Plasmycotid Dendritic Cells via Siglec-H inhibits Th-Cell-Independent Autoimmunity. J. Immunol 187 doi: 10-4019/jimmunol. 11 02307.
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. 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.
5. 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.

Pictures:

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