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AM26313BT-N Monoclonal Antibody to Siglec-H - Biotin

Quantity:	50 µg
Concentration:	0.1 mg/ml
Background:	Siglec H is unique among Sialic acid-binding Ig-like lectins (Siglecs) proteins because it associates with the adaptor protein DAP12. DAP12 recognize certain viruses and CpG-DNA through TLR9, resulting in secretion of IFN-alpha, IL-12 and proinflammatory chemokines. Together these cytokines and chemokines recruite and activate NK cells and T cells as well as modulating the antigen presenting function of dendritic cells (DC). IPC themselves also function as antigen presenting cells that expand memory T cells and induce Th1 differentiation. Therefore IPC may provide a first line of host defense against viral infections by activating both innate and adaptive responses in vivo. The monoclonal antibody 440c exclusively recognizes mouse Siglec-H in all lymphoid organs under both normal and inflammatory conditions. Siglec-H is normal present in the T cell zone of lymph nodes and spleen. Incubation of IPC with antibody 440c in vitro or administration of antibody 440c in vivo reduces secretion of IFN-alpha in response to CpG DNA without causing IPC depletion.
Uniprot ID:	Q3Y597
NCBI:	10090
Host / Isotype:	Rat / IgG2b
Recommended Isotype Controls:	SM19B
Clone:	440c
Format:	**State:** Liquid 0.2 µm filtered Ig fraction **Purification:** Protein G **Buffer System:** PBS **Preservatives:** 0.02% sodium azide **Stabilizers:** 0.1% bovine serum albumin **Label:** Biotin
Applications:	Immunohistochemistry on frozen sections: The typical starting working dilution is 1:50. Flow cytometry: The typical starting working dilution is 1:50. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	The monoclonal antibody 440c reacts with Siglec-H, a cell-surface receptor molecule selectively expressed on murine natural interferon producing cells (IPC), also called mouse plasmacytoid dendritic cells (pDC).
Species Reactivity:	**Tested:** Mouse
Storage:	Store at 2 - 8 °C. Shelf life: one year from despatch.

General Readings:

1. Blasius AL, Cella M, Maldonado J, Takai T, Colonna M. Siglec-H is an IPC-specific receptor that modulates type I IFN secretion through DAP12. Blood. 2006 Mar 15;107(6):2474-6. Epub 2005 Nov 17. PubMed PMID: 16293595.
2. Blasius A, Vermi W, Krug A, Facchetti F, Cella M, Colonna M. A cell-surface molecule selectively expressed on murine natural interferon-producing cells that blocks secretion of interferon-alpha. Blood. 2004 Jun 1;103(11):4201-6. Epub 2003 Dec 24. PubMed PMID: 14695235.
3. Colonna, M et al; Plasmacytoid dendritic cells in immunity. Nat Immunol 2004, 5: 1219.
4. Seth S, Oberdörfer L, Hyde R, Hoff K, Thies V, Worbs T, et al. CCR7 essentially contributes to the homing of plasmacytoid dendritic cells to lymph nodes under steady-state as well as inflammatory conditions. J Immunol. 2011 Mar 15;186(6):3364-72. doi: 10.4049/jimmunol.1002598. Epub 2011 Feb 4. PubMed PMID: 21296980.