

## CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

<b>Product name</b>	Siglec-H, Mouse, clone 440c		
<b>Catalog number</b>	HM1075-100UG		
<b>Lot number</b>	-	<b>Expiry date</b>	-
<b>Volume</b>	1 ml	<b>Amount</b>	100 µg
<b>Formulation</b>	0.2 µm filtered in PBS+0.1%BSA	<b>Concentration</b>	100 µg/ml
<b>Host Species</b>	Rat IgG2b	<b>Conjugate</b>	None
<b>Endotoxin</b>	N.A.	<b>Purification</b>	Protein G
<b>Storage</b>	4°C		

### Application notes

	IHC-F	IHC-P	IF	FC	FS*	IA	IP	W
Reference #								
Yes	•			•	•			
No								
N.D.		•	•			•	•	•

N.D.= Not Determined; IHC = Immuno histochemistry; F = Frozen sections; P = Paraffin sections; IF = Immuno Fluorescence; FC = Flow Cytometry; FS = Functional Studies; IA = Immuno Assays; IP = Immuno Precipitation; W = Western blot

\*If you are interested to use this antibody for functional studies, please contact us for bulk and low endotoxin opportunities.

Dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:50.

- FS: the antibody is useful for inhibition of IFN-alpha secretion by mouse interferon producing cells (IPC). For inhibition of IFN-alpha secretion dilutions have to be made according to the amounts of Siglec-H to be inactivated.

### General Information

**Description** 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). 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 recruit 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.

- References**
1. Blasius, A et al; Siglec-H is an IPC-specific receptor that modulates type I IFN secretion through DAP12. Blood 2006, 107: 2474
  2. Blasius, A et al; A cell-surface molecule selectively expressed on murine natural interferon-producing cells that blocks secretion of interferon-alpha. Blood 2004, 103: 4201
  3. Colonna, M et al; Plasmacytoid dendritic cells in immunity. Nat Immunol 2004, 5: 1219
  4. Seth, S 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, 186: 3364

**Storage&stability** Product should be stored at 4°C. Under recommended storage conditions, product is stable for at least one year.

**Precautions**

For research use only. Not for use in or on humans or animals or for diagnostics. It is the responsibility of the user to comply with all local/state and federal rules in the use of this product. Hycult Biotech is not responsible for any patent infringements that might result from the use or derivation of this product.

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We hereby certify that the above-stated information is correct and that this product has been successfully tested by the Quality Control Department. This product was released for sale according to the existing specifications. This document has been produced electronically and is valid without a signature.

Approved by Manager of QC  
Brenda Teunissen

Date  
12/11/2019

Do you have any questions or comments regarding this product? Please contact us via [support@hycultbiotech.com](mailto:support@hycultbiotech.com).