## Datasheet: MCA6125 BATCH NUMBER 162667

Description:	MOUSE ANTI HUMAN CD169
Specificity:	CD169
Other names:	Siglec-1
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	7-239
Isotype:	lgG1
Quantity:	0.1 mg

# **Product Details**

Applications	This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit <u>www.bio-rad-antibodies.com/protocols</u> .					
		Yes	No	Not Determined	Suggested Dilution	
	Flow Cytometry	-				
	Immunohistology - Frozen	-				
	Immunoprecipitation	-				
	Western Blotting	-				
	Functional Assays	-				
	Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.					
Target Species	Human					
Product Form	Purified IgG - liquid					
Preparation	Purified IgG prepared by	affinity c	hromatogi	aphy on Protein A fror	n tissue culture	

	supernatant
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	<0.1% Sodium Azide (NaN <sub>3</sub> )

Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Human rhinovirus 14-infected monocyte-derived dendritic cells
External Database Links	UniProt: <u>Q9BZZ2</u> <u>Related reagents</u> Entrez Gene: <u>6614</u> SIGLEC1 <u>Related reagents</u>
Synonyms	SN
Specificity	<ul> <li>Mouse anti Human CD169 clone 7-239, recognizes CD169 also known as Siglec-1 or Sialoadhesin, is a member of the Siglec family of proteins. It is expressed by subpopulations of macrophages and dendritic cells. Some subpopulations of macrophages express CD169 at a low level, but this expression can be upregulated upon induction by IFN-α (<u>O'Neill <i>et al.</i> 2013</u>). CD169+ cells are largely found in the lymph nodes, spleen, but are also present in smaller amounts in intestinal tracts, liver and bone marrow (<u>Hartnell <i>et al.</i> 2001</u>). The most characterized functions of CD169 are its roles in cell-cell interactions and phagocytosis of sialylated pathogens.</li> <li>CD169 has an approximate molecular weight of 185 kDa and recognizes sialic acid-containing sugar chains. Structurally, it contains an extracellular domain containing 17 immunoglobulin-like domains and one v-set domain via which it binds its' ligands. It also contains 16 C2-set domains which extend the binding site away from the surface of the cell. This extension helps bind granulocytes, B cells, erythrocytes and a subset of CD8 T cells (<u>Eakin <i>et al.</i> 2016</u>).</li> <li>Increased expression of CD169 has been found to be associated with various conditions, including atherosclerosis, type I diabetes, chronic rejection and systemic sclerosis (Bornhöfft <i>et al.</i> 2018).</li> <li>Mouse anti Human CD169 clone 7-239 has been used in flow cytometry experiments to measure cell surface expression of CD169 upon cell stimulation with IFN-α (<u>OhAinle <i>et al.</i> 2018</u>).</li> </ul>
Purity	>95% by SDS PAGE
References	<ol> <li>Hammonds, J.E. <i>et al.</i> (2017) Siglec-1 initiates formation of the virus-containing compartment and enhances macrophage-to-T cell transmission of HIV-1. <u>PLoS Pathog. 13</u> (<u>1</u>): <u>e1006181.</u></li> <li>Izquierdo-useros, N. <i>et al.</i> (2012) Siglec-1 is a novel dendritic cell receptor that mediates HIV-1 trans-infection through recognition of viral membrane gangliosides. <u>PLoS Biol. 10 (12): e1001448.</u></li> <li>Pino, M. <i>et al.</i> (2015) HIV-1 immune activation induces Siglec-1 expression and enhances viral trans-infection in blood and tissue myeloid cells. <u>Retrovirology. 12: 37.</u></li> </ol>

	<ul> <li>4. Martinez-picado, J. <i>et al.</i> (2016) Identification of Siglec-1 null individuals infected with HIV-1. <u>Nat Commun. 7: 12412.</u></li> <li>5. Perez-Zsolt, D. <i>et al.</i> (2019) Anti-Siglec-1 antibodies block Ebola viral uptake and decrease cytoplasmic viral entry. <u>Nat Microbiol. 4 (9): 1558-1570.</u></li> <li>6. Rose, T. <i>et al.</i> (2017) Are interferon-related biomarkers advantageous for monitoring disease activity in systemic lupus erythematosus? A longitudinal benchmark study.</li> </ul>				
	<u>Rheumatology (Oxford). 56 (9): 1618-26.</u> 7. Sharma, V. <i>et al.</i> (2021) Cerebrospinal fluid CD4+ T cell infection in humans and macaques during acute HIV-1 and SHIV infection. <u>PLoS Pathog. 17 (12): e1010105.</u>				
Further Reading	<ol> <li>Hartnell, A. <i>et al.</i> (2001) Characterization of human sialoadhesin, a sialic acid binding receptor expressed by resident and inflammatory macrophage populations. <u>Blood. 97 (1):</u> <u>288-96.</u></li> <li>Eakin, A.J. <i>et al.</i> (2016) Siglec-1 and -2 as potential biomarkers in autoimmune disease. <u>Proteomics Clin Appl. 10 (6): 635-44.</u></li> <li>Bornhöfft, K.F. <i>et al.</i> (2018) Siglecs: A journey through the evolution of sialic acid-binding immunoglobulin-type lectins. <u>Dev Comp Immunol. 86: 219-231.</u></li> </ol>				
Storage	Store at +4°C. DO NOT FREEZE. This product should be stored undiluted.				
Guarantee	12 months from date of despatch				
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/MCA6125 10040				
Regulatory	For research purposes only				

### **Related Products**

### **Recommended Secondary Antibodies**

Rabbit Anti Mouse IgG (STAR12)	RPE		
Goat Anti Mouse IgG IgA IgM (STAR87) <u>HRP</u>			
Goat Anti Mouse IgG (STAR76)	RPE		
Rabbit Anti Mouse IgG (STAR13)	HRP		
Goat Anti Mouse IgG (STAR70)	<u>FITC</u>		
Goat Anti Mouse IgG (H/L) (STAR117)	Alk. Phos., DyLight®488, DyLight®550,		
	<u>DyLight@650</u> , <u>DyLight@680</u> , <u>DyLight@800</u> ,		
	DyLight®650, DyLight®680, DyLight®800, FITC, HRP		
Rabbit Anti Mouse IgG (STAR9)			
Rabbit Anti Mouse IgG (STAR9) Goat Anti Mouse IgG (STAR77)	FITC, HRP		
<b>ö</b> ( )	FITC, HRP FITC		
Goat Anti Mouse IgG (STAR77)	FITC, HRP FITC HRP		

MOUSE IgG1 NEGATIVE CONTROL (MCA928)

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batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets							
'M353614:190509'							

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