

# Datasheet: MCA6125 BATCH NUMBER 157771

Description:MOUSE ANTI HUMAN CD169Specificity:CD169Other names:Siglec-1Format:PurifiedProduct Type:Monoclonal AntibodyClone:7-239Isotype:IgG1Quantity:0.1 mg		
Other names: Siglec-1  Format: Purified  Product Type: Monoclonal Antibody  Clone: 7-239  Isotype: IgG1	Description:	MOUSE ANTI HUMAN CD169
Format: Purified  Product Type: Monoclonal Antibody  Clone: 7-239  Isotype: IgG1	Specificity:	CD169
Product Type: Monoclonal Antibody Clone: 7-239 Isotype: IgG1	Other names:	Siglec-1
Clone: 7-239 Isotype: IgG1	Format:	Purified
Isotype: IgG1	Product Type:	Monoclonal Antibody
	Clone:	7-239
Quantity: 0.1 mg	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 <a href="www.bio-rad-antibodies.com/protocols">www.bio-rad-antibodies.com/protocols</a>.

	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 chromatography on Protein A supernatant	A from tissue culture
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:** 

Q9BZZ2 Related reagents

**Entrez Gene:** 

6614 SIGLEC1 Related reagents

## **Synonyms**

SN

#### **Specificity**

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 (O'Neill et al. 2013). CD169+ cells are largely found in the lymph nodes, spleen, but are also present in smaller amounts in intestinal tracts, liver and bone marrow (Hartnell et al. 2001). The most characterized functions of CD169 are its roles in cell-cell interactions and phagocytosis of sialylated pathogens.

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 (Eakin *et al.* 2016).

Increased expression of CD169 has been found to be associated with various conditions, including atherosclerosis, type I diabetes, chronic rejection and systemic sclerosis (<u>Bornhöfft et al. 2018</u>).

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- $\alpha$  (OhAinle et al. 2018).

#### **Purity**

>95% by SDS PAGE

#### References

- 1. Hammonds, J.E. *et al.* (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> (1): e1006181.
- 2. Izquierdo-useros, N. *et al.* (2012) Siglec-1 is a novel dendritic cell receptor that mediates HIV-1 trans-infection through recognition of viral membrane gangliosides. <u>PLoS</u> Biol. 10 (12): e1001448.
- 3. Pino, M. *et al.* (2015) HIV-1 immune activation induces Siglec-1 expression and enhances viral trans-infection in blood and tissue myeloid cells. <u>Retrovirology</u>. 12: 37.

- 4. Martinez-picado, J. *et al.* (2016) Identification of Siglec-1 null individuals infected with HIV-1. Nat Commun. 7: 12412.
- 5. Perez-Zsolt, D. *et al.* (2019) Anti-Siglec-1 antibodies block Ebola viral uptake and decrease cytoplasmic viral entry. <u>Nat Microbiol. 4 (9): 1558-1570.</u>
- 6. Rose, T. *et al.* (2017) Are interferon-related biomarkers advantageous for monitoring disease activity in systemic lupus erythematosus? A longitudinal benchmark study. Rheumatology (Oxford). 56 (9): 1618-26.
- 7. Sharma, V. *et al.* (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**

- 1. Hartnell, A. *et al.* (2001) Characterization of human sialoadhesin, a sialic acid binding receptor expressed by resident and inflammatory macrophage populations. <u>Blood. 97 (1):</u> 288-96.
- 2. Eakin, A.J. *et al.* (2016) Siglec-1 and -2 as potential biomarkers in autoimmune disease. Proteomics Clin Appl. 10 (6): 635-44.
- 3. Bornhöfft, K.F. *et al.* (2018) Siglecs: A journey through the evolution of sialic acid-binding immunoglobulin-type lectins. <u>Dev Comp Immunol</u>. 86: 219-231.

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: <a href="https://www.bio-rad-antibodies.com/SDS/MCA6125">https://www.bio-rad-antibodies.com/SDS/MCA6125</a> 10040	
Regulatory	For research purposes only	

# **Related Products**

## **Recommended Secondary Antibodies**

Rabbit Anti Mouse IgG (STAR12...)

Goat Anti Mouse IgG IgA IgM (STAR87...) HRP

Goat Anti Mouse IgG (STAR76...)

Rabbit Anti Mouse IgG (STAR13...)

HRP

Goat Anti Mouse IgG (STAR70...)

FITC

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>,

FITC, HRP

Rabbit Anti Mouse IgG (STAR9...) FITC

Goat Anti Mouse IgG (STAR77...) HRP

Goat Anti Mouse IgG (Fc) (STAR120...) FITC, HRP

**Recommended Negative Controls** 

MOUSE IgG1 NEGATIVE CONTROL (MCA928)

 North & South
 Tel: +1 800 265 7376
 Worldwide
 Tel: +44 (0)1865 852 700
 Europe
 Tel: +49 (0) 89 8090 95 21
 To

 America
 Fax: +1 919 878 3751
 Fax: +44 (0)1865 852 739
 Fax: +49 (0) 89 8090 95 50
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