Datasheet: MCA6125PE

BATCH NUMBER 160371

Description:	MOUSE ANTI HUMAN CD169:RPE
Specificity:	CD169
Other names:	Siglec-1
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	7-239
Isotype:	IgG1
Quantity:	100 TESTS/1ml

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 www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			Neat

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 conjugated to R. Phycoerythrin (RPE) - liquid

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
RPE 488nm laser	496	578
RPE 561nm laser	546	578

Preparation

Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant

Buffer Solution

Phosphate buffered saline

Preservative Stabilisers

<0.1% Sodium Azide (NaN_3)
0.2% Bovine Serum Albumin

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 (Bornhöfft *et al.* 2018). 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 (OhAinle *et al.* 2018).
Purity	>95% by SDS PAGE
Flow Cytometry	Use 10ul of the undiluted reagent to label $1x10^6$ cells in 100ul
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. PLoS Pathog. 13 (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. PLoS 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. Retrovirology. 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. Nat Microbiol. 4 (9): 1558-1570.
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. PLoS Pathog. 17 (12): e1010105.

Further Reading	1. Hartnell, A. *et al.* (2001) Characterization of human sialoadhesin, a sialic acid binding receptor expressed by resident and inflammatory macrophage populations. Blood. 97 (1): 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. Dev Comp Immunol. 86: 219-231.
Storage	Store at +4°C. DO NOT FREEZE. This product should be stored undiluted. This product is photosensitive and should be protected from light.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10041 available at: https://www.bio-rad-antibodies.com/SDS/MCA6125PE 10041
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL:RPE (MCA928PE)

North & South America Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com
Worldwide Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com
Europe Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M353585:190509'

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