

Datasheet: MCA884F

Description:	RAT ANTI MOUSE CD169:FITC
Specificity:	CD169
Other names:	SIALOADHESIN
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	3D6.112
Isotype:	IgG2a
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 www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	■			Neat - 1/5
Immunohistology - Frozen			■	
Immunohistology - Paraffin			■	

Where this antibody 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 antibody for use in their own system using appropriate negative/positive controls.

Target Species	Mouse		
Product Form	Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	FITC	490	525
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant		
Buffer Solution	Phosphate buffered saline		
Preservative	0.09% Sodium Azide		
Stabilisers	1% Bovine Serum Albumin		
Approx. Protein Concentrations	IgG concentration 0.1 mg/ml		
Immunogen	Purified murine sialoadhesin.		
External Database Links	UniProt:		

Entrez Gene:

[20612](#) Siglec1 [Related reagents](#)

Synonyms	Sa, Sn
Fusion Partners	Spleen cells from an immunised AO rat were fused with the cells of the Y3 rat myeloma cell line.
Specificity	Rat anti Mouse CD169 antibody, clone 3D6.112 recognizes mouse CD169 also known as sialoadhesin, Sheep erythrocyte receptor or Siglec-1. CD169 is a 1695 amino acid, ~180 kDa single pass, type 1 transmembrane glycoprotein containing a single Ig-like V-type domain and sixteen Ig-like C2-type domains. CD169 is a macrophage restricted receptor, preferentially binding to alpha 2,3 linked sialic acid residues (Crocker et al. 1991) and is expressed on stromal macrophages in many tissues, particularly in lymph nodes, bone marrow and on marginal metallophilic macrophages in the spleen (Morris et al. 1991). CD169 has been implicated in a number of roles including cell-cell interactions with lymphocytes (van den Berg et al. 1992) and granulocytes (Crocker et al. 1995). CD169 expressing macrophages have also been suggested to play a role in host resistance to lymphoma metastasis (Umansky et al. 1996). In pigs CD169 has also been identified as a macrophage restricted receptor for porcine reproductive and respiratory syndrome virus (Delputte et al. 2007). CD169 expressing macrophages have also been implicated in the regulation of autoimmune disease progression through their interaction with regulatory T cells via CD169 (Wu et al. 2009). CD169 has also been shown to play a critical role in the recognition and elimination of invasive sialylated microorganisms including <i>Campylobacter jejuni</i> (Klass et al. 2012) and group B Streptococcus (Chang et al. 2014). The functional activity of rat anti mouse CD169 antibody, clone 3D6.112, its ability to inhibit binding of red blood cells to CD169 can be considerably enhanced by derivitization of the antibody with polyethylene glycol (Ducreux et al. 2008).
Flow Cytometry	The Fc region of monoclonal antibodies may bind non-specifically to cells expressing low affinity Fc receptors. This may be reduced by using SeroBlock FcR (BUF041A/B).
References	1. Crocker, P.R. <i>et al.</i> (1991) Purification and properties of sialoadhesin, a sialic acid-binding receptor of murine tissue macrophages. EMBO J. 10 (7): 1661-9. 2. Barral, P. <i>et al.</i> (2010) CD169(+) macrophages present lipid antigens to mediate early activation of iNKT cells in lymph nodes. Nat Immunol. 11: 303-12. 3. Chtanova, T. <i>et al.</i> (2008) Dynamics of neutrophil migration in lymph nodes during infection. Immunity. 29: 487-96. 4. Hsu, K.M. <i>et al.</i> (2009) Murine cytomegalovirus displays selective infection of cells within hours after systemic administration. J Gen Virol. 90:33-43. 5. Iannacone M (2010) Subcapsular sinus macrophages prevent CNS invasion on peripheral infection with a neurotropic virus. Nature. 465: 1079-83. 6. Idoyaga, J. <i>et al.</i> (2009) Antibody to Langerin/CD207 localizes large numbers of CD8alpha+ dendritic cells to the marginal zone of mouse spleen. Proc Natl Acad Sci U S A. 106: 1524-9. 7. Taylor, P.R. <i>et al.</i> (2008) Development of a specific system for targeting protein to metallophilic macrophages. Proc Natl Acad Sci U S A. 101: 1963-8. 8. Chang, Y.C. <i>et al.</i> (2014) Role of macrophage sialoadhesin in host defense against the sialylated pathogen group B Streptococcus. J Mol Med (Berl). 92(9):951-9. 9. Lin, H.H. <i>et al.</i> (2005) The macrophage F4/80 receptor is required for the induction of antigen-specific efferent regulatory T cells in peripheral tolerance. J Exp Med. 201: 1615-25.

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Storage

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost free freezers is not recommended. This product is photosensitive and should be protected from light.

Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Shelf Life

18 months from date of despatch.

Health And Safety Information

Material Safety Datasheet documentation #10041 available at: 10041: <https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf>

Regulatory

For research purposes only

Related Products

Recommended Negative Controls

[RAT IgG2a NEGATIVE CONTROL:FITC \(MCA1212F\)](#)

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
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