Datasheet: MCA884

Description:	RAT ANTI MOUSE CD169
Specificity:	CD169
Other names:	SIALOADHESIN
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	3D6.112
Isotype:	IgG2a
Quantity:	0.2 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	▪			1/100 - 1/1000
Immunohistology - Frozen (1)	▪			1/50 - 1/100
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting			▪	
Immunofluorescence	▪			

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.

(1)**Bio-Rad recommend using fixation with either 2% paraformaldehyde or ethanol for optimal results.**

Target Species	Mouse
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide
Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml

Immunogen	Purified murine sialoadhesin.
External Database Links	**UniProt:** Q62230 Related reagents **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 *Campylobacter jejuni* (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).
References	1. Crocker, P.R. *et al.* (1991) Purification and properties of sialoadhesin, a sialic acid-binding receptor of murine tissue macrophages. EMBO J. 10 (7): 1661-9. 2. Barral, P. *et al.* (2010) CD169(+) macrophages present lipid antigens to mediate early activation of iNKT cells in lymph nodes. Nat Immunol. 11: 303-12. 3. Chtanova, T. *et al.* (2008) Dynamics of neutrophil migration in lymph nodes during infection. Immunity. 29: 487-96. 4. Hsu, K.M. *et al.* (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. *et al.* (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. *et al.* (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. *et al.* (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. *et al.* (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. 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 #10040 available at: 10040: https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Rat IgG (STAR16...)	DyLight®800
Goat Anti Rat IgG (STAR73...)	RPE
Rabbit Anti Rat IgG (STAR21...)	HRP
Rabbit Anti Rat IgG (STAR17...)	FITC
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)	DyLight®549, DyLight®649, DyLight®800
Goat Anti Rat IgG (STAR131...)	Alk. Phos., Biotin
Goat Anti Rat IgG (STAR69...)	FITC
Goat Anti Rat IgG (STAR72...)	HRP

Recommended Negative Controls

RAT IgG2a NEGATIVE CONTROL (MCA1212)

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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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