

Datasheet: MCA2872EL

Description:	MOUSE ANTI RAT CD49d:Low Endotoxin
Specificity:	CD49d
Other names:	INTEGRIN ALPHA 4 CHAIN, VLA-4
Format:	Low Endotoxin
Product Type:	Monoclonal Antibody
Clone:	MRalpha4-1
Isotype:	IgG2a
Quantity:	0.5 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	▪			1/10 - 1/100
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA			▪	
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	Rat
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	None present
Carrier Free	Yes
Endotoxin Level	<0.01EU/ug
Approx. Protein Concentrations	IgG concentration 1.0mg/ml

Immunogen	RBL-2H3 rat basophilic leukaemia cell line.
Fusion Partners	Spleen cells from immunised Balb/c mice were fused with cells of the P3U1 myeloma cell line.
Specificity	<p>Mouse anti Rat CD49d monoclonal antibody, clone MRalpha4-1 recognizes rat CD49d, otherwise known as integrin alpha 4 chain/VLA-4, a ~150 kDa single pass type-1 transmembrane glycoprotein and member of the integrin alpha chain family, which acts as a receptor for fibronectin and CD106 (VCAM-1).</p> <p>CD49d is expressed broadly on T and B lymphocytes, monocytes, thymocytes, mast cells and dendritic cells and is involved in cell-cell interactions, mononuclear cell trafficking to sites of endothelial inflammation, and the adhesion of cells to the extracellular matrix.</p> <p>Clone MRalpha4-1 inhibits the <i>in vitro</i> and <i>in vivo</i> functions of CD49d (Yasuda et al. 1995). Studies have shown that in rat Peyer's patches, clone MRalpha4-1 inhibits the rolling and adherence of lymphocytes to postcapillary venules (PCV), and significantly inhibits the transendothelial migration of T lymphocytes (Tsuzuki et al. 1996).</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label 1x10 ⁶ cells in 100ul.
References	<ol style="list-style-type: none"> 1. Yasuda, M. <i>et al.</i> (1995) Expression and function of fibronectin binding integrins on rat mast cells. Int Immunol. 7 (2): 251-8. 2. Tsuzuki Y <i>et al.</i> (1996) alpha 4 integrin plays a critical role in early stages of T lymphocyte migration in Peyer's patches of rats. Int Immunol. 8 (3): 287-95. 3. Summers, L. <i>et al.</i> (2013) Activation of brain endothelial cells by interleukin-1 is regulated by the extracellular matrix after acute brain injury. Mol Cell Neurosci. 57: 93-103.
Storage	<p>Store at -20°C only.</p> <p>Storage in frost-free freezers is not recommended.</p> <p>This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.</p>
Shelf Life	18 months from date of despatch.
Health And Safety Information	Material Safety Datasheet documentation #10162 available at: 10162: https://www.bio-rad-antibodies.com/uploads/MSDS/10162.pdf
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	Alk. Phos. , HRP
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos. , DyLight@488 , DyLight@549 , DyLight@649 , DyLight@680 , DyLight@800 , FITC , HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (STAR77...)	HRP
Rabbit Anti Mouse IgG (STAR12...)	RPE

Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)
Rabbit Anti Mouse IgG (STAR8...) [DyLight@800](#)
Goat Anti Mouse IgG (STAR70...) [FITC](#)
Human Anti Mouse IgG2a (HCA037...) [FITC](#), [HRP](#)
Rabbit Anti Mouse IgG (STAR13...) [HRP](#)

Recommended Negative Controls

[MOUSE IgG2a NEGATIVE CONTROL:Low Endotoxin \(MCA1210EL\)](#)

North & South Tel: +1 800 265 7376

America 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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