

Datasheet: MCA923F BATCH NUMBER 159430

Description:	MOUSE ANTI HUMAN CD49d:FITC		
Specificity:	CD49d		
Other names:	INTEGRIN ALPHA 4 CHAIN, VLA-4		
Format:	FITC		
Product Type:	Monoclonal Antibody		
Clone:	44H6		
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 <u>www.bio-rad-antibodies.com/protocols</u> .						
		Yes No	Not Determined	Suggested Dilution			
	Flow Cytometry	•		Neat			
	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 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	Human						
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 A from tissue culture supernatant						
Buffer Solution	Phosphate buffered saline						
Preservative Stabilisers	0.09% Sodium Azide 1% Bovine Serum Albumin						
Approx. Protein	IgG concentration 0.1 mg/ml						

Concentrations

Immunogen	HOON pre-B leukaemia cell line.			
External Database Links	UniProt: P13612 Related reagents Entrez Gene: 3676 ITGA4 Related reagents			
Synonyms	CD49D			
RRID	AB_321452			
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the SP2.0-Ag14 mouse myeloma cell line.			
Specificity	Mouse anti Human CD49d monoclonal antibody, clone 44H6 recognizes human CD49d also known as integrin alpha-4 or VLA-4 subunit alpha. CD49d is a ~150kDa single pass type 1 transmembrane glycoprotein with seven <u>FG-GAP</u> repeats, characteristic of alpha integrins, in its extracellular domain. CD49d can be proteolytically cleaved to yield fragments of 80 and 70 kDa (<u>Hemler <i>et al.</i> 1987</u>). CD49d associates with either <u>CD29</u> to form VLA-4 or with Integrin beta-7 to form The Peyer's patches-specific homing receptor LPAM-1, involved in the lymphocyte migration and homing to gut-associated lymphoid tissue (<u>Sackstein 2006</u>) through its interaction with MadCam-1, preferentially expressed on Peyer's patch high endothelial venules and postcapillary venules in lamina propria (<u>Briskin <i>et al.</i> 1997</u>) Mouse anti human CD49d, clone 44H6 is reported to induce homotypic aggregation of			
Flow Cytometry	pre-B cell lines including <u>HOON</u> and <u>NALM-6</u> (<u>Letarte <i>et al.</i> 1993</u>). Use 10ul of the antibody to label 100ul whole blood or 10 ⁶ cells in 100ul.			
References	 Quackenbush, E.J. & Letarte, M. (1985) Identification of several cell surface proteins of non-T, non-B acute lymphoblastic leukemia by using monoclonal antibodies. <u>J Immunol.</u> <u>134 (2): 1276-85.</u> Letarte, M. <i>et al.</i> (1993) Homotypic aggregation of pre-B leukemic cell lines by antibodies to VLA integrins correlates with their expression of CD9. <u>Leukemia 7(1):</u> <u>93-103.</u> Hartz B <i>et al.</i> (2011) α 4 integrin levels on mobilized peripheral blood stem cells predict rapidity of engraftment in patients receiving autologous stem cell transplantation. <u>Blood.</u> <u>118 (8): 2362-5.</u> Ling, K.L. <i>et al.</i> (2007) Modulation of CD103 expression on human colon carcinoma- specific CTL. <u>J Immunol. 178: 2908-15.</u> Eigenmann, P.A. <i>et al.</i> (1999) The mucosal adhesion receptor alpha4beta7 integrin is selectively increased in lymphocytes stimulated with beta-lactoglobulin in children allergic to cow's milk. <u>J Allergy Clin Immunol. 103: 931-6.</u> 			

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Storage

This product is shipped at ambient temperature. It is recommended to aliquot and store at

-20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for
short term use (up to 4 weeks) and store the remaining aliquots at -20°C.Avoid repeated freezing and thawing as this may denature the antibody. Storage in
frost-free freezers is not recommended. This product is photosensitive and should be
protected from light.Guarantee12 months from date of despatchHealth And Safety
InformationMaterial Safety Datasheet documentation #10041 available at:
https://www.bio-rad-antibodies.com/SDS/MCA923F
10041RegulatoryFor research purposes only

Related Products

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL: FITC (MCA928F)

Recommended Useful Reagents

HUMAN SEROBLOCK (BUF070A) HUMAN SEROBLOCK (BUF070B)

North & South	Tel: +1 800 265 7376	Worldwide	Tel: +44 (0)1865 852 700	Europe	Tel: +49 (0) 89 8090 95 21
America	Fax: +1 919 878 3751		Fax: +44 (0)1865 852 739		Fax: +49 (0) 89 8090 95 50
	Email: antibody_sales_us@bio-	rad.com	Email: antibody_sales_uk@bio-	rad.com	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 'M384650:210513'

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