

Datasheet: MCA2298F BATCH NUMBER 159869

Description:	HAMSTER ANTI MOUSE CD29:FITC
Specificity:	CD29
Other names:	INTEGRIN BETA 1 CHAIN
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	HM beta 1-1
lsotype:	lgG
Quantity:	0.1 mg

Product Details

Applications This product has been reported to work in the following applications. This infor derived from testing within our laboratories, peer-reviewed publications or pers					
	information. For general protocol recommendations, please visit <u>WWW.blo-</u>				
	rad-antibodies.com/pro	Yes No.	Not Determined	Suggested Dilution	
	Flow Cytometry	•	Not Determined	Neat - 1/10	
	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				
Species Cross	Reacts with: Rat				
Reactivity	N.B. Antibody reactivity and working conditions may vary between species. Cross				
	reactivity is derived fro	m testing within ou	r laboratories, peer-re	eviewed publications or	
	personal communication	ons from the origin	ators. Please refer to	references indicated for	
	further information.				
Product Form	Purified IgG conjugate	d to Fluorescein Is	othiocyanate Isomer 1	l (FITC) - liquid	
Max Ex/Em	Fluorophore	Excitation Max (nr	n) Emission Max (nm)	
	FITC	490	525		
Preparation	Purified IgG prepared supernatant	by affinity chromat	ography on Protein G	from tissue culture	

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 mouse VLA-4 antigen.	
External Database Links	UniProt: <u>P09055</u> <u>Related reagents</u> Entrez Gene: <u>16412</u> Itgb1 <u>Related reagents</u>	
RRID	AB_566688	
Fusion Partners	Spleen cells from immunized Armenian hamsters were fused with cells of the P3U1 mouse myeloma cell line.	
Specificity	Hamster anti Mouse CD29 antibody, clone HM beta 1-1 recognizes the murine integrin beta 1 subunit (CD29), a ~110 kDa cell surface glycoprotein that is widely expressed by a variety of cells including all leucocytes. CD29 forms non-covalent bonds with the integrin alpha subunits, including CD51 and CD49a-f, to form heterodimers. The ligands for these heterodimers include collagen, fibronectin, laminin and vascular adhesion molecule-1. In the immune system beta 1 integrins play an important role in cell adhesion, migration, activation and differentiation.	
	Hamster anti Mouse CD29 antibody, clone HM beta 1-1 is reported to inhibit beta 1 integrin mediated adhesion (<u>Noto <i>et al.</i> 1995</u>).	
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells in 100ul.	
	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 (<u>BUF041A/B</u>).	
References	 Noto, K. <i>et al.</i> (1995) Identification and functional characterization of mouse CD29 with a mAb. Int Immunol. 7 (5): 835-42. Lu, T.Y. <i>et al.</i> (2010) Epithelial cell adhesion molecule regulation is associated with the maintenance of the undifferentiated phenotype of human embryonic stem cells. J Biol Chem. 285: 8719-32. Li S <i>et al.</i> (2010) Upregulation of CXCR4 favoring neural-like cells migration via AKT activation. Neurosci Res. 67 (4): 293-9. Eto, D.S. <i>et al.</i> (2007) Integrin-mediated host cell invasion by type 1-piliated uropathogenic Escherichia coli. PLoS Pathog. 3: e100. Tiede, B.J. <i>et al.</i> (2009) A novel mouse model for non-invasive single marker tracking of 	

	mammary stem cells in vivo reveals stem cell dynamics through 4 (11): e8035.	out pregnancy. <u>PLoS One.</u>
	6. Kouros-Mehr H (2008) GATA-3 links tumor differentiation and	dissemination in a luminal
	breast cancer model. <u>Cancer Cell. 13: 141-52.</u>	
	7. Xu, L. et al. (2017) Umbilical cord-derived mesenchymal sten	n cells on scaffolds
	facilitate collagen degradation via upregulation of MMP-9 in rat	uterine scars. <u>Stem Cell</u>
	<u>Res Ther. 8 (1): 84.</u>	
	8. Hou, B. et al. (2018) Comparison of the Effects of BMSC-der	ived Schwann Cells and
	Autologous Schwann Cells on Remyelination Using a Rat Sciat	ic Nerve Defect Model. <u>Int</u>
	<u>J Biol Sci. 14 (13): 1910-1922.</u>	
	9. Porwal, K. et al. (2019) Increased bone marrow-specific adip	ogenesis by clofazimine
	causes impaired fracture healing, osteopenia and osteonecrosis	s without extra-skeletal
	effects in rats. <u>Toxicol Sci. kfz172.</u>	
	10. Zhu, C. et al. (2020) Antinociceptive effect of intrathecal inje	ection of miR-9-5p modified
	mouse bone marrow mesenchymal stem cells on a mouse mod	el of bone cancer pain. <u>J</u>
	Neuroinflammation. 17 (1): 85.	
	11. Farahat, M. <i>et al.</i> (2022) Mechanotransductive Mechanisms	of Biomimetic Hydrogel
	Cues Modulating Meckel's Cartilage Degeneration. Adv Biol (W	einn). 2022: e2101315.
Storage	This product is shipped at ambient temperature. It is recommen	ded 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 a	antibody. Storage in
	frost-free freezers is not recommended. This product is photose	ensitive and should be
	protected from light.	
Guarantee	12 months from date of despatch	
Health And Safety	Material Safety Datasheet documentation #10041 available at:	
Information	https://www.bio-rad-antibodies.com/SDS/MCA2298F	
	10041	
Pogulatory.		

Related Products

Recommended Negative Controls

HAMSTER (ARMENIAN) IgG NEGATIVE CONTROL:FITC (MCA2356F)

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-ra	d.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 'M385818:210513'

Printed on 18 Jan 2024

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