

Datasheet: MCA2125F

Description:	RAT ANTI MOUSE CD49b:FITC
Specificity:	CD49b
Other names:	INTEGRIN ALPHA 2 CHAIN, VLA-2
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	DX5
Isotype:	IgM
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	■			

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. 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 IgM conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	FITC	490	525
Preparation	Purified IgM from tissue culture supernatant		
Buffer Solution	Phosphate buffered saline		
Preservative	0.09% Sodium Azide		
Stabilisers	1% Bovine Serum Albumin		
Approx. Protein Concentrations	IgM concentration 0.1 mg/ml		
Immunogen	RIL-2 propagated NK1.1+ cells from C57BL/6 mice.		
External Database Links	UniProt: Q62469 Related reagents Entrez Gene:		

Fusion Partners	Spleen cells from immunised Lewis rats were fused with the mouse SP2/0 myeloma cell line.
Specificity	Rat anti Mouse CD49b monoclonal antibody, clone DX5 recognizes mouse CD49b, also known as Very Late Antigen-2 (VLA-2) or alpha-2 integrin. CD49b is a ~160kDa single pass type I membrane protein expressed by NK cells and a small subset of T-cells (Pellicci et al. 2005). Rat anti mouse CD49b, clone DX5 stains NK cells from all mouse strains tested including Balb/c mice (Arese et al. 2001). CD49b acts as a receptor for collagen, laminin, fibronectin and E-cadherin (Carafoli et al. 2013).
Flow Cytometry	Use 10ul of the suggested working dilution to label 10⁶ 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 (BUF041A/B).
References	1. Arase, H. <i>et al.</i> (2001) Cutting edge: the mouse NK cell-associated antigen recognized by DX5 monoclonal antibody is CD49b (alpha 2 integrin, very late antigen-2). J Immunol. 167 (3): 1141-4. 2. Leong, C.C. <i>et al.</i> (1998) Modulation of natural killer cell cytotoxicity in human cytomegalovirus infection: the role of endogenous class I major histocompatibility complex and a viral class I homolog. J Exp Med. 187 (10): 1681-7. 3. Yin, Y. <i>et al.</i> (2013) Phosphatidylserine-targeting antibody induces M1 macrophage polarization and promotes myeloid-derived suppressor cell differentiation. Cancer Immunol Res. 1 (4): 256-68. 4. Lin, C.Y. <i>et al.</i> (2008) Combined immunogene therapy of IL-6 and IL-15 enhances anti-tumor activity through augmented NK cytotoxicity. Cancer Lett. 272: 285-95. 5. Thomson, R.C. <i>et al.</i> (2008) Expansion and activation of NK cell populations in a gammaherpesvirus infection. Scand J Immunol. 67: 489-95. 6. Pais, R. <i>et al.</i> (2012) An intracameral injection of antigen induces in situ chemokines and cytokines required for the generation of circulating immunoregulatory monocytes. PLoS One. 7: e43182. 7. Jacobs, N. <i>et al.</i> (2006) Intradermal immune response after infection with Vaccinia virus. J Gen Virol. 87: 1157-61.
Storage	Store at +4°C only. DO NOT FREEZE This product should be stored undiluted. 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

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