

## Datasheet: MCA2125F

**BATCH NUMBER 160715**

<b>Description:</b>	RAT ANTI MOUSE CD49b:FITC
<b>Specificity:</b>	CD49b
<b>Other names:</b>	INTEGRIN ALPHA 2 CHAIN, VLA-2
<b>Format:</b>	FITC
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	DX5
<b>Isotype:</b>	IgM
<b>Quantity:</b>	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](http://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.

<b>Target Species</b>	Mouse						
<b>Product Form</b>	Purified IgM conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid						
<b>Max Ex/Em</b>	<table border="1"> <thead> <tr> <th>Fluorophore</th> <th>Excitation Max (nm)</th> <th>Emission Max (nm)</th> </tr> </thead> <tbody> <tr> <td>FITC</td> <td>490</td> <td>525</td> </tr> </tbody> </table>	Fluorophore	Excitation Max (nm)	Emission Max (nm)	FITC	490	525
Fluorophore	Excitation Max (nm)	Emission Max (nm)					
FITC	490	525					
<b>Preparation</b>	Purified IgM from tissue culture supernatant						
<b>Buffer Solution</b>	Phosphate buffered saline						
<b>Preservative</b>	0.09% Sodium Azide						
<b>Stabilisers</b>	1% Bovine Serum Albumin						
<b>Approx. Protein Concentrations</b>	IgM concentration 0.1 mg/ml						

**Immunogen** RIL-2 propagated NK1.1+ cells from C57BL/6 mice.

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**External Database**

**Links**

**UniProt:**

[Q62469](#)

[Related reagents](#)

**Entrez Gene:**

[16398](#)

Itga2

[Related reagents](#)

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**RRID**

AB\_323718

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**Fusion Partners**

Spleen cells from immunised Lewis rats were fused with the mouse SP2/0 myeloma cell line.

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**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](#)).

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**Flow Cytometry**

Use 10ul of the suggested working dilution to label 10<sup>6</sup> 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](#)).

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**References**

1. Arase, H. *et al.* (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. Jacobs, N. *et al.* (2006) Intradermal immune response after infection with Vaccinia virus. [J Gen Virol. 87: 1157-61.](#)
3. Yin, Y. *et al.* (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. *et al.* (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. *et al.* (2008) Expansion and activation of NK cell populations in a gammaherpesvirus infection. [Scand J Immunol. 67: 489-95.](#)
6. Pais, R. *et al.* (2012) An intracameral injection of antigen induces in situ chemokines and cytokines required for the generation of circulating immunoregulatory monocytes. [PLoS One. 7: e43182.](#)

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**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.

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<b>Guarantee</b>	12 months from date of despatch
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<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10041 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA2125F">https://www.bio-rad-antibodies.com/SDS/MCA2125F</a> 10041
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<b>Regulatory</b>	For research purposes only
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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://bio-rad-antibodies.com/datasheets)  
'M366228:200529'

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