

## Datasheet: MCA743F

<b>Description:</b>	MOUSE ANTI HUMAN 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>	AK7
<b>Isotype:</b>	IgG1
<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	▪			Neat - 1/5

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. The suggested working dilution is 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

Human

### Species Cross Reactivity

Reacts with: Cynomolgus monkey, Rhesus Monkey, Baboon  
**N.B.** Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

### 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

<b>Preservative Stabilisers</b>	0.09% Sodium Azide 1% Bovine Serum Albumin
<b>Approx. Protein Concentrations</b>	IgG concentration 0.1 mg/ml
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P17301</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">3673</a> ITGA2    <a href="#">Related reagents</a></p>
<b>Synonyms</b>	CD49B
<b>RRID</b>	AB_321447
<b>Fusion Partners</b>	Spleen cells from immunised mice were fused with cells of the mouse NS1 myeloma cell line.
<b>Specificity</b>	<p><b>Mouse anti Human CD49b antibody, clone AK7</b> recognizes the integrin alpha 2 subunit, a ~160 kDa glycoprotein that non-covalently associates with the ~130 kDa integrin beta 1 subunit to form the VLA-2 complex.</p> <p>CD49b is expressed by platelets, long term cultivated T cells, approximately 50% of monocytes and most adherent cell lines.</p> <p>Mouse anti Human CD49b antibody, clone AK7 inhibits cell attachment to collagen.</p>
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells or 100ul whole blood
<b>References</b>	<ol style="list-style-type: none"> <li>Favaloro, E.J. <i>et al.</i> (1990) Co-expression of haemopoietic antigens on vascular endothelial cells: a detailed phenotypic analysis. <a href="#">Br J Haematol. 74 (4): 385-94.</a></li> <li>Mazurov, A.V. <i>et al.</i> (1991) A monoclonal antibody, VM64, reacts with a 130 kDa glycoprotein common to platelets and endothelial cells: heterogeneity in antibody binding to human aortic endothelial cells. <a href="#">Thromb Haemost. 66 (4): 494-9.</a></li> <li>Yoshino N <i>et al.</i> (2000) Upgrading of flow cytometric analysis for absolute counts, cytokines and other antigenic molecules of cynomolgus monkeys (<i>Macaca fascicularis</i>) by using anti-human cross-reactive antibodies. <a href="#">Exp Anim. 49 (2): 97-110.</a></li> <li>Koutsogiannaki, S. &amp; Kaloyianni, M. (2011) Effect of 17β-estradiol on adhesion of <i>Mytilus galloprovincialis</i> hemocytes to selected substrates. Role of alpha2 integrin subunit. <a href="#">Fish Shellfish Immunol. 31 (1): 73-80.</a></li> <li>Cavers, M. <i>et al.</i> (2002) Differential expression of beta1 and beta2 integrins and L-selectin on CD4+ and CD8+ T lymphocytes in human blood: comparative analysis between isolated cells, whole blood samples and cryopreserved preparations. <a href="#">Clin Exp Immunol. 127: 60-5.</a></li> <li>Mörtberg A <i>et al.</i> (2016) Sensitive detection of platelet-specific antibodies with a modified MAIPA using biotinylated antibodies and streptavidin-coated beads. <a href="#">J Immunol</a></li> </ol>

[Methods. 434: 9-15.](#)

7. Rane, J.K. *et al.* (2016) Inhibition of the glucocorticoid receptor results in an enhanced miR-99a/100-mediated radiation response in stem-like cells from human prostate cancers. [Oncotarget. 7 \(32\): 51965-80.](#)

8. Hamaia, S.W. *et al.* (2012) Mapping of potent and specific binding motifs, GLOGEN and GVOGEA, for integrin  $\alpha 1\beta 1$  using collagen toolkits II and III. [J Biol Chem. 287 \(31\): 26019-28.](#)

9. García-gareta, E. *et al.* (2019) Engineering the migration and attachment behaviour of primary dermal fibroblasts. [Biotechnol Bioeng. Jan 19 \[Epub ahead of print\].](#)

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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.

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**Guarantee** 12 months from date of despatch

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**Health And Safety Information** Material Safety Datasheet documentation #10041 available at: 10041: <https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf>

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**Regulatory** For research purposes only

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## Related Products

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:FITC \(MCA928F\)](#)

### Recommended Useful Reagents

[HUMAN SEROBLOCK \(BUF070A\)](#)

[HUMAN SEROBLOCK \(BUF070B\)](#)

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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://www.bio-rad-antibodies.com/datasheets)

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