

## Datasheet: MCA2294A647

<b>Description:</b>	RAT ANTI MOUSE CD49d:Alexa Fluor® 647
<b>Specificity:</b>	CD49d
<b>Other names:</b>	INTEGRIN ALPHA 4 CHAIN, VLA-4
<b>Format:</b>	ALEXA FLUOR® 647
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	9C10 (MFR4.B)
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	100 TESTS/1ml

## 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 - 1/10

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 the appropriate negative/positive controls.

<b>Target Species</b>	Mouse						
<b>Product Form</b>	Purified IgG conjugated to Alexa Fluor® 647 - 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>Alexa Fluor®647</td> <td>650</td> <td>665</td> </tr> </tbody> </table>	Fluorophore	Excitation Max (nm)	Emission Max (nm)	Alexa Fluor®647	650	665
Fluorophore	Excitation Max (nm)	Emission Max (nm)					
Alexa Fluor®647	650	665					
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein G 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>	IgG concentration 0.05 mg/ml						
<b>Immunogen</b>	Mouse LyD9 haematopoietic progenitor cells.						
<b>External Database Links</b>	<b>UniProt:</b> <a href="#">Q00651</a> <a href="#">Related reagents</a>						

**Entrez Gene:**

[16401](#) Itga4 [Related reagents](#)

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**RRID** AB\_566808

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**Fusion Partners** Spleen cells from immunised Lewis rats were fused with cells of the mouse P3X63Ag8.653 myeloma cell line.

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**Specificity** **Rat anti Mouse CD49d monoclonal antibody, clone 9C10** recognizes murine alpha 4 integrin (CD49d) also known as VLA-4 subunit alpha, CD49d is a ~150 kDa single pass type I transmembrane glycoprotein that can associate with either beta 1 integrin (CD29) or beta 7 integrin to form heterodimers CD49d/CD29 (VLA-4) and alpha4/beta7 (LPAM-1) respectively. CD49d is expressed on most lymphocytes, granulocytes, monocytes and thymocytes. The primary ligands for CD49d are CD106 (VCAM-1), fibronectin and MAdCAM-1.

Clone 9C10 (MFR4.B) is reported to significantly inhibit binding of CD49d to CD106 but only when used in combination with clone R1-2 ([Kinashi and Springer 1994](#)).

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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. Bellingan, G.J. *et al.* (2002) Adhesion molecule-dependent mechanisms regulate the rate of macrophage clearance during the resolution of peritoneal inflammation. [J Exp Med. 196 \(11\): 1515-21.](#)

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**Storage** Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost-free freezers is not recommended. 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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**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>

## Related Products

### Recommended Negative Controls

[RAT IgG2a NEGATIVE CONTROL:Alexa Fluor® 647 \(MCA1212A647\)](#)

**North & South** Tel: +1 800 265 7376

**America** Fax: +1 919 878 3751

Email: [antibody\\_sales\\_us@bio-rad.com](mailto:antibody_sales_us@bio-rad.com)

**Worldwide**

Tel: +44 (0)1865 852 700

Fax: +44 (0)1865 852 739

Email: [antibody\\_sales\\_uk@bio-rad.com](mailto:antibody_sales_uk@bio-rad.com)

**Europe**

Tel: +49 (0) 89 8090 95 21

Fax: +49 (0) 89 8090 95 50

Email: [antibody\\_sales\\_de@bio-rad.com](mailto:antibody_sales_de@bio-rad.com)

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