

## Datasheet: MCA2298A647T

<b>Description:</b>	HAMSTER ANTI MOUSE CD29:Alexa Fluor® 647
<b>Specificity:</b>	CD29
<b>Other names:</b>	INTEGRIN BETA 1 CHAIN
<b>Format:</b>	ALEXA FLUOR® 647
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	HM beta 1-1
<b>Isotype:</b>	IgG
<b>Quantity:</b>	25 TESTS/0.25ml

### 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. 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 Reactivity

Reacts with: Rat

**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 Alexa Fluor®647 - liquid

#### Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
Alexa Fluor®647	650	665

#### Preparation

Purified IgG prepared by affinity chromatography on Protein G 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 0.05 mg/ml
<b>Immunogen</b>	Purified mouse VLA-4 antigen.
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P09055</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">16412</a> Itgb1    <a href="#">Related reagents</a></p>
<b>RRID</b>	AB_2128081
<b>Fusion Partners</b>	Spleen cells from immunized Armenian hamsters were fused with cells of the P3U1 mouse myeloma cell line.
<b>Specificity</b>	<p><b>Hamster anti Mouse CD29 antibody, clone HM beta 1-1</b> 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.</p> <p>Hamster anti Mouse CD29 antibody, clone HM beta 1-1 is reported to inhibit beta 1 integrin mediated adhesion (<a href="#">Noto et al. 1995</a>).</p>
<b>Flow Cytometry</b>	<p>Use 10ul of the suggested working dilution to label 10<sup>6</sup> cells in 100ul.</p> <p>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 (<a href="#">BUF041A/B</a>).</p>
<b>References</b>	<ol style="list-style-type: none"> <li>1. Noto, K. <i>et al.</i> (1995) Identification and functional characterization of mouse CD29 with a mAb. <a href="#">Int Immunol. 7 (5): 835-42.</a></li> <li>2. 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. <a href="#">J Biol Chem. 285: 8719-32.</a></li> <li>3. Li S <i>et al.</i> (2010) Upregulation of CXCR4 favoring neural-like cells migration via AKT activation. <a href="#">Neurosci Res. 67 (4): 293-9.</a></li> <li>4. Eto, D.S. <i>et al.</i> (2007) Integrin-mediated host cell invasion by type 1-piliated uropathogenic Escherichia coli. <a href="#">PLoS Pathog. 3: e100.</a></li> <li>5. 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 throughout pregnancy. <a href="#">PLoS One. 4 (11): e8035.</a></li> </ol>

6. Kouros-Mehr H (2008) GATA-3 links tumor differentiation and dissemination in a luminal breast cancer model. [Cancer Cell. 13: 141-52.](#)
7. Xu, L. *et al.* (2017) Umbilical cord-derived mesenchymal stem cells on scaffolds facilitate collagen degradation via upregulation of MMP-9 in rat uterine scars. [Stem Cell Res Ther. 8 \(1\): 84.](#)

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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.

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**Guarantee**

12 months from date of despatch

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**Acknowledgements**

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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

[HAMSTER \(ARMENIAN\) IgG NEGATIVE CONTROL:Alexa Fluor® 647 \(MCA2356A647\)](#)

**North & South America** Tel: +1 800 265 7376  
Fax: +1 919 878 3751

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