

Datasheet: MCA2298EL

Description:	HAMSTER ANTI MOUSE CD29:Low Endotoxin
Specificity:	CD29
Other names:	INTEGRIN BETA 1 CHAIN
Format:	Low Endotoxin
Product Type:	Monoclonal Antibody
Clone:	HM beta 1-1
Isotype:	IgG
Quantity:	0.5 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	▪			1/50 - 1/100
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting			▪	
Functional Assays	▪			

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	<p>Reacts with: Rat</p> <p>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.</p>
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture

supernatant

Buffer Solution Phosphate buffered saline

Preservative Stabilisers None present

Carrier Free Yes

Endotoxin Level < 0.01 EU/ug

Approx. Protein Concentrations IgG concentration 1.0 mg/ml

Immunogen Purified mouse VLA-4 antigen.

External Database Links

UniProt:

[P09055](#) [Related reagents](#)

Entrez Gene:

[16412](#) Itgb1 [Related reagents](#)

RRID AB_566693

Fusion Partners Spleen cells from immunized Armenian hamsters were fused with cells of the P3U1 mouse myeloma cell line.

Specificity **Hamster anti Mouse CD29 antibody, clone HM beta 1-1** 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.

Hamster anti Mouse CD29 antibody, clone HM beta 1-1 is reported to inhibit beta 1 integrin mediated adhesion ([Noto *et al.* 1995](#)).

Flow Cytometry Use 10ul of the suggested working dilution to label 10⁶ cells in 100ul.

References

1. Noto, K. *et al.* (1995) Identification and functional characterization of mouse CD29 with a mAb. [Int Immunol. 7 \(5\): 835-42.](#)
2. Lu, T.Y. *et al.* (2010) Epithelial cell adhesion molecule regulation is associated with the maintenance of the undifferentiated phenotype of human embryonic stem cells. [J Biol Chem. 285: 8719-32.](#)
3. Li S *et al.* (2010) Upregulation of CXCR4 favoring neural-like cells migration via AKT activation. [Neurosci Res. 67 \(4\): 293-9.](#)
4. Eto, D.S. *et al.* (2007) Integrin-mediated host cell invasion by type 1-piliated

uropathogenic Escherichia coli. [PLoS Pathog. 3: e100.](#)

5. Tiede, B.J. *et al.* (2009) A novel mouse model for non-invasive single marker tracking of mammary stem cells in vivo reveals stem cell dynamics throughout pregnancy. [PLoS One. 4 \(11\): e8035.](#)

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.](#)

Storage

Store at -20°C only.

This product should be stored undiluted.

Storage in frost-free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody.

Guarantee

12 months from date of despatch

Health And Safety Information

Material Safety Datasheet documentation #10162 available at:
10162: <https://www.bio-rad-antibodies.com/uploads/MSDS/10162.pdf>

Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Hamster IgG (STAR104...) [DyLight@800](#), [FITC](#)

Goat Anti Hamster IgG (STAR79...) [Biotin](#), [FITC](#), [HRP](#)

Recommended Negative Controls

[HAMSTER \(ARMENIAN\) IgG NEGATIVE CONTROL \(MCA2356\)](#)

Recommended Positive Controls

[HAMSTER \(ARMENIAN\) IgG NEGATIVE CONTROL:Low Endotoxin \(MCA2356EL\)](#)

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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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