

## Datasheet: MCA2086

<b>Description:</b>	MOUSE ANTI HUMAN CD18 (ACTIVATION EPITOPE)
<b>Specificity:</b>	CD18 (ACTIVATION EPITOPE)
<b>Other names:</b>	INTEGRIN BETA 2 CHAIN
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	MEM-148
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	0.2 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	▪			
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting	▪			Non-reducing conditions

Where this product 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 product for use in their own system using appropriate negative/positive controls.

<b>Target Species</b>	Human
<b>Product Form</b>	Purified IgG - liquid
<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 Stabilisers</b>	0.09% sodium azide (NaN <sub>3</sub> )

<b>Approx. Protein Concentrations</b>	IgG concentration 1.0 mg/ml
<b>Immunogen</b>	Peripheral blood mononuclear cells.
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P05107</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">3689</a>    ITGB2    <a href="#">Related reagents</a></p>
<b>Synonyms</b>	CD18, MFI7
<b>RRID</b>	AB_323889
<b>Specificity</b>	<b>Mouse anti Human CD18 (Activation Epitope) antibody, clone MEM-148</b> recognizes an epitope on the human CD18 molecule that is hidden in the CD11/CD18 heterodimer on resting cells. Clone MEM-148 binds very weakly to resting peripheral blood leukocytes and strongly to all leukocytes upon cellular activation. The epitope recognized by Mouse anti Human CD18 (Activation Epitope) antibody, clone MEM-148 is also exposed during dissociation of the CD11/CD18 by low pH.
<b>Flow Cytometry</b>	Use 10µl of the suggested working dilution to label 10 <sup>6</sup> cells in 100µl
<b>References</b>	<ol style="list-style-type: none"> <li>1. Drbal, K. <i>et al.</i> (2001) A proteolytically truncated form of free CD18, the common chain of leukocyte integrins, as a novel marker of activated myeloid cells. <a href="#">Blood. 98 (5): 1561-6.</a></li> <li>2. Ehrchiou, D. <i>et al.</i> (2005) Dual function for a unique site within the beta2I domain of integrin alphaMbeta2. <a href="#">J Biol Chem. 280: 8324-31.</a></li> <li>3. Solovjov, D.A. <i>et al.</i> (2005) Distinct roles for the alpha and beta subunits in the functions of integrin alphaMbeta2. <a href="#">J Biol Chem. 280: 1336-45.</a></li> <li>4. Cairo, C.W. <i>et al.</i> (2006) Cytoskeletal regulation couples LFA-1 conformational changes to receptor lateral mobility and clustering. <a href="#">Immunity. 25: 297-308.</a></li> <li>5. Shi, M. <i>et al.</i> (2007) A structural hypothesis for the transition between bent and extended conformations of the leukocyte beta2 integrins. <a href="#">J Biol Chem. 282: 30198-206.</a></li> <li>6. Cheng, M. <i>et al.</i> (2007) Mutation of a conserved asparagine in the I-like domain promotes constitutively active integrins alphaLbeta2 and alphaIIbbeta3. <a href="#">J Biol Chem. 282: 18225-32.</a></li> <li>7. Kudlová M. <i>et al.</i> (2007) Expression of an activated form of integrin beta2 chain CD18 in cardiac surgical operations. <a href="#">Acta Medica (Hradec Kralove). 50: 187-93.</a></li> <li>8. Anogianaki, A. <i>et al.</i> (2007) Capsaicin an irritant anti-inflammatory compound. <a href="#">J Biol Regul Homeost Agents. 21: 1-4.</a></li> <li>9. Tang, X.Y. <i>et al.</i> (2008) Intercellular adhesion molecule-3 binding of integrin alphaL beta2 requires both extension and opening of the integrin headpiece. <a href="#">J Immunol. 180: 4793-804.</a></li> <li>10. Arthos, J. <i>et al.</i> (2008) HIV-1 envelope protein binds to and signals through integrin alpha4beta7, the gut mucosal homing receptor for peripheral T cells. <a href="#">Nat Immunol. 9: 301-9.</a></li> </ol>

11. Luissint, A.C. *et al.* (2008) JAM-L-mediated leukocyte adhesion to endothelial cells is regulated in cis by alpha4beta1 integrin activation. [J Cell Biol. 183 \(6\): 1159-73.](#)
12. Feng, C. *et al.* (2011) Endogenous PMN sialidase activity exposes activation epitope on CD11b/CD18 which enhances its binding interaction with ICAM-1. [J Leukoc Biol. 90: 313-21.](#)
13. Dilek, N. *et al.* (2013) Targeting CD28, CTLA-4 and PD-L1 costimulation differentially controls immune synapses and function of human regulatory and conventional T-cells. [PLoS One. 8 \(12\): e83139.](#)

**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.

**Guarantee** 12 months from date of despatch

**Health And Safety Information** Material Safety Datasheet documentation #10040 available at: <https://www.bio-rad-antibodies.com/SDS/MCA2086>  
10040

**Regulatory** For research purposes only

## Related Products

### Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...) [HRP](#)

Rabbit Anti Mouse IgG (STAR12...) [RPE](#)

Goat Anti Mouse IgG (STAR70...) [FITC](#)

Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)

Goat Anti Mouse IgG (STAR76...) [RPE](#)

Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)

Rabbit Anti Mouse IgG (STAR13...) [HRP](#)

Rabbit Anti Mouse IgG (STAR9...) [FITC](#)

Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight@488](#), [DyLight@550](#),  
[DyLight@650](#), [DyLight@680](#), [DyLight@800](#),  
[FITC](#), [HRP](#)

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

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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](http://bio-rad-antibodies.com/datasheets)

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