

# Datasheet: MCA2086PET

Description:	MOUSE ANTI HUMAN CD18 (ACTIVATION EPITOPE):RPE			
Specificity:	CD18 (ACTIVATION EPITOPE)			
Other names:	INTEGRIN BETA 2 CHAIN			
Format:	RPE			
Product Type:	Monoclonal Antibody			
Clone:	MEM-148			
Isotype:	lgG1			
Quantity:	25 TESTS			

## **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 <u>www.bio-rad-antibodies.com/protocols</u> .						
	<u></u>	Yes	No	Not Determined	Suggested Dilution		
	Flow Cytometry	•			Neat		
	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.						
Target Species	Human						
Product Form	Purified IgG conjugated to R. Phycoerythrin (RPE) - lyophilized						
Reconstitution	Reconstitute in 0.25 ml distilled water						
Max Ex/Em	Fluorophore	Excitation M	ax (nm)	Emission Max (nm)			
	RPE 488nm laser	496		578			
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant						
Buffer Solution	Phosphate buffered saline						
Preservative Stabilisers	0.09% sodium azide ( 1% bovine serum albu 5% sucrose	-,					

Immunogen	Peripheral blood mononuclear cells.
External Database Links	UniProt: <u>P05107</u> <u>Related reagents</u> Entrez Gene: <u>3689</u> ITGB2 <u>Related reagents</u>
Synonyms	CD18, MFI7
RRID	AB_1100976
Specificity	<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.
Flow Cytometry	Use 10µl of the suggested working dilution to label $10^6$ cells in $100µl$
References	<ol> <li>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. <u>Blood. 98 (5): 1561-6.</u></li> <li>Ehirchiou, D. <i>et al.</i> (2005) Dual function for a unique site within the beta2l domain of integrin alphaMbeta2. <u>J Biol Chem. 280: 8324-31.</u></li> <li>Solovjov, D.A. <i>et al.</i> (2005) Distinct roles for the alpha and beta subunits in the functions of integrin alphaMbeta2. <u>J Biol Chem. 280: 1336-45.</u></li> <li>Cairo, C.W. <i>et al.</i> (2006) Cytoskeletal regulation couples LFA-1 conformational changes to receptor lateral mobility and clustering. <u>Immunity. 25: 297-308.</u></li> <li>Shi, M. <i>et al.</i> (2007) A structural hypothesis for the transition between bent and extended conformations of the leukocyte beta2 integrins. <u>J Biol Chem. 282: 30198-206.</u></li> <li>Cheng, M. <i>et al.</i> (2007) Mutation of a conserved asparagine in the I-like domain promotes constitutively active integrins alphaLbeta2 and alphallbbeta3. <u>J Biol Chem. 282: 18225-32.</u></li> <li>Kudlová M. <i>et al.</i> (2007) Expression of an activated form of integrin beta2 chain CD18 in cardiac surgical operations. <u>Acta Medica (Hradec Kralove). 50: 187-93.</u></li> <li>Anogianaki, A. <i>et al.</i> (2008) Intercellular adhesion molecule-3 binding of integrin alphaL beta2 requires both extension and opening of the integrin headpiece. <u>J Immunol. 180: 4793-804.</u></li> <li>Arthos, J. <i>et al.</i> (2008) HIV-1 envelope protein binds to and signals through integrin alphaLbeta7, the gut mucosal homing receptor for peripheral T cells. <u>Nat Immunol. 9: 301-9.</u></li> <li>Luissint, A.C. <i>et al.</i> (2008) JAM-L-mediated leukocyte adhesion to endothelial cells is regulated in cis by alpha4beta1 integrin activation. <u>J Cell Biol. 183 (6): 1159-73.</u></li> <li>Feng, C. <i>et al.</i> (2011) Endogenous PMN sialidase activity exposes activation epitope</li> </ol>

	on CD11b/CD18 which enhances its binding interaction with ICAM-1. <u>J Leukoc Biol. 90:</u> <u>313-21.</u> 13. Dilek, N. <i>et al.</i> (2013) Targeting CD28, CTLA-4 and PD-L1 costimulation differentially controls immune synapses and function of human regulatory and conventional T-cells. <u>PLoS One. 8 (12): e83139.</u>				
Storage	This product is shipped at ambient temperature.				
	Prior to reconstitution store at +4°C. Following reconstitution store at +4°C. DO NOT FREEZE.				
	This product should be stored undiluted. This product is photosensitive and should be				
	protected from light. Should this product contain a precipitate we recommend				
	microcentrifugation before use.				
Guarantee	12 months from date of despatch				
Health And Safety	Material Safety Datasheet documentation #20487 available at:				
Information	https://www.bio-rad-antibodies.com/SDS/MCA2086PET				
	20487				
Regulatory	For research purposes only				

### Related Products

#### **Recommended Negative Controls**

MOUSE IgG1 NEGATIVE CONTROL:RPE (MCA928PE)

#### **Recommended Useful Reagents**

HUMAN SEROBLOCK (BUF070A) HUMAN SEROBLOCK (BUF070B)

North & South	Tel: +1 800 265 7376	Vorldwide	Tel: +44 (0)1865 852 700	Europe	Tel: +49 (0) 89 8090 95 21
America	Fax: +1 919 878 3751		Fax: +44 (0)1865 852 739		Fax: +49 (0) 89 8090 95 50
	Email: antibody_sales_us@bio-rad.com		Email: antibody_sales_uk@bio-rad.com		Email: antibody_sales_de@bio-rad.com

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets 'M440385:250523'

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