

## Datasheet: MCA2087

<b>Description:</b>	MOUSE ANTI HUMAN CD11c
<b>Specificity:</b>	CD11c
<b>Other names:</b>	INTEGRIN ALPHA X CHAIN
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	BU15
<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	▪			1/10 - 1/50
Immunohistology - Frozen (1)	▪			
Immunohistology - Paraffin		▪		
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting			▪	

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.

**(1)The epitope recognised by this antibody is reported to be sensitive to formaldehyde fixation and tissue processing. Bio-Rad recommends the use of acetone fixation for frozen sections.**

### Target Species

Human

### Species Cross Reactivity

Reacts with: Cynomolgus monkey

**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.

<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared from tissue culture supernatant
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.09% Sodium Azide
<b>Carrier Free</b>	Yes
<b>Approx. Protein Concentrations</b>	IgG concentration 1.0 mg/ml
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P20702</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">3687</a>    ITGAX    <a href="#">Related reagents</a></p>
<b>Synonyms</b>	CD11C
<b>RRID</b>	AB_323659
<b>Specificity</b>	<p><b>Mouse anti Human CD11c antibody, clone Bu15</b> recognizes the integrin alpha<sup>x</sup> subunit (ITGAX), a ~150 kDa glycoprotein also known as CD11 antigen-like family member C or Leu M5, CD11c is expressed by macrophages, monocytes, NK cells and most dendritic cells (<a href="#">Kohrgruber et al. 1999</a>). CD11c is also expressed at a lower level by granulocytes.</p> <p>CD11c forms a heterodimeric integral membrane protein with the integrin beta 2 chain to form the leukocyte specific integrin '<a href="#">inactivated-C3b receptor 4</a>'. CD11c interacts with a number of ligands including the <a href="#">G-P-R</a> sequence in fibrinogen, ICAM-1 (<a href="#">Frick et al. 2005</a>), iC3b (<a href="#">Sadhu et al. 2007</a>) and Junctional adhesion molecule-like (<a href="#">Bazzoni et al. 2011</a>). CD11c is involved in cell-cell interactions during the inflammatory process and is important for monocyte adhesion and chemotaxis. CD11c also acts as a signalling receptor for polysaccharide (<a href="#">Inqualls et al. 1995</a>)</p> <p>CD11c is expressed by hairy cell leukaemia cells (<a href="#">Goodman et al. 2003</a>; <a href="#">Nicolaou et al. 2003</a>).</p>
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.
<b>References</b>	<ol style="list-style-type: none"> <li>Hogg, N. <i>et al.</i> (1986) The p150,95 molecule is a marker of human mononuclear phagocytes: comparison with expression of class II molecules. <a href="#">Eur J Immunol. 16 (3): 240-8.</a></li> <li>Newman, K.C. <i>et al.</i> (2006) Cross-talk with myeloid accessory cells regulates human natural killer cell interferon-gamma responses to malaria. <a href="#">PLoS Pathog. 2: e118.</a></li> <li>Herman, S. <i>et al.</i> (2012) Regulatory T cells form stable and long-lasting cell cluster with</li> </ol>

- myeloid dendritic cells (DC). [Int Immunol. 24 \(7\): 417-26.](#)
4. Silk, K.M. *et al.* (2012) Rapamycin conditioning of dendritic cells differentiated from human ES cells promotes a tolerogenic phenotype. [J Biomed Biotechnol. 2012:172420.](#)
  5. Xie, Z. *et al.* (2016) Human umbilical cord-derived mesenchymal stem cells elicit macrophages into an anti-inflammatory phenotype to alleviate insulin resistance in type 2 diabetic rats. [Stem Cells. 34 \(3\): 627-39.](#)
  6. Brown, D.P. *et al.* (2009) The inhibitory receptor LILRB4 (ILT3) modulates antigen presenting cell phenotype and, along with LILRB2 (ILT4), is upregulated in response to *Salmonella* infection. [BMC Immunol. 10: 56.](#)
  7. Schroeder JH *et al.* (2017) *Brugia malayi* microfilariae adhere to human vascular endothelial cells in a C3-dependent manner. [PLoS Negl Trop Dis. 11 \(5\): e0005592.](#)
  8. Simões, R.D. *et al.* (2019) Effects of Regulatory T Cell Depletion on NK Cell Responses against *Listeria monocytogenes* in Feline Immunodeficiency Virus Infected Cats. [Viruses. 11 \(11\) Oct 24 \[Epub ahead of print\].](#)
  9. Levy, O. *et al.* (2003) Critical role of the complement system in group B streptococcus-induced tumor necrosis factor alpha release. [Infect Immun. 71: 6344-53.](#)

<b>Further Reading</b>	<ol style="list-style-type: none"> <li>1. Larson, R.S. &amp; Springer, T.A. (1990) Structure and function of leukocyte integrins. <a href="#">Immunol Rev. 114: 181-217.</a></li> <li>2. Loike, J.D. <i>et al.</i> (1991) CD11c/CD18 on neutrophils recognizes a domain at the N terminus of the A alpha chain of fibrinogen. <a href="#">Proc Natl Acad Sci U S A. 88 (3): 1044-8.</a></li> <li>3. Sanchez-Madrid, F. and Corbi, A.L. (1992) Leukocyte integrins: structure, function and regulation of their activity. <a href="#">Seminars Cell Biol. 3: 199-210.</a></li> </ol>
<b>Storage</b>	<p>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.</p> <p>Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.</p>
<b>Guarantee</b>	12 months from date of despatch
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10040 available at: 10040: <a href="https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf">https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf</a>
<b>Regulatory</b>	For research purposes only

## Related Products

### Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...)	<a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR12...)	<a href="#">RPE</a>
Rabbit Anti Mouse IgG (STAR8...)	<a href="#">DyLight®800</a>
Goat Anti Mouse IgG (STAR76...)	<a href="#">RPE</a>
Goat Anti Mouse IgG (Fc) (STAR120...)	<a href="#">FITC</a> , <a href="#">HRP</a>
Goat Anti Mouse IgG IgA IgM (STAR87...)	<a href="#">Alk. Phos.</a> , <a href="#">HRP</a>

Rabbit Anti Mouse IgG (STAR13...) [HRP](#)  
Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight®488](#), [DyLight®550](#),  
[DyLight®650](#), [DyLight®680](#), [DyLight®800](#),  
[FITC](#), [HRP](#)  
Goat Anti Mouse IgG (STAR70...) [FITC](#)  
Rabbit Anti Mouse IgG (STAR9...) [FITC](#)

## Recommended Negative Controls

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

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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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://bio-rad-antibodies.com/datasheets)

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