

## Datasheet: MCA2087GA

<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>	0.1 mg

## Product Details

**RRID** AB\_323917

### 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.

**Product Form** Purified IgG - liquid

**Preparation** Purified IgG prepared from tissue culture supernatant

**Buffer Solution** Phosphate buffered saline

**Preservative Stabilisers** 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>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>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>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>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> <li>Silk, K.M. <i>et al.</i> (2012) Rapamycin conditioning of dendritic cells differentiated from human ES cells promotes a tolerogenic phenotype. <a href="#">J Biomed Biotechnol. 2012:172420.</a></li> <li>Bird, R.C. <i>et al.</i> (2011) An autologous dendritic cell canine mammary tumor hybrid-cell fusion vaccine. <a href="#">Cancer Immunol Immunother. 60 (1): 87-97.</a></li> <li>Eisenhardt, S.U. <i>et al.</i> (2007) Generation of activation-specific human anti-alphaMbeta2 single-chain antibodies as potential diagnostic tools and therapeutic agents. <a href="#">Blood. 109: 3521-8.</a></li> <li>Herman, S. <i>et al.</i> (2012) Regulatory T cells form stable and long-lasting cell cluster with myeloid dendritic cells (DC). <a href="#">Int Immunol. 24 (7): 417-26.</a></li> <li>Levy, O. <i>et al.</i> (2003) Critical role of the complement system in group B streptococcus-induced tumor necrosis factor alpha release. <a href="#">Infect Immun. 71: 6344-53.</a></li> <li>Xie, Z. <i>et al.</i> (2016) Human umbilical cord-derived mesenchymal stem cells elicit macrophages into an anti-inflammatory phenotype to alleviate insulin resistance in type 2 diabetic rats. <a href="#">Stem Cells. 34 (3): 627-39.</a></li> <li>Brown, D.P. <i>et al.</i> (2009) The inhibitory receptor LILRB4 (ILT3) modulates antigen presenting cell phenotype and, along with LILRB2 (ILT4), is upregulated in response to <i>Salmonella</i> infection.</li> </ol>

[BMC Immunol. 10: 56.](#)

12. 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.](#)

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<b>Further Reading</b>	1. Larson, R.S. & Springer, T.A. (1990) Structure and function of leukocyte integrins. <a href="#">Immunol Rev. 114: 181-217.</a>
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<b>Storage</b>	Store at +4°C or at -20°C if preferred.  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. Should this product contain a precipitate we recommend microcentrifugation before use.
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<b>Guarantee</b>	18 months from date of despatch.
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<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>
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<b>Regulatory</b>	For research purposes only
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## Related Products

### Recommended Secondary Antibodies

Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)  
Goat Anti Mouse IgG (STAR77...) [HRP](#)  
Rabbit Anti Mouse IgG (STAR12...) [RPE](#)  
Rabbit Anti Mouse IgG (STAR8...) [DyLight®800](#)  
Rabbit Anti Mouse IgG (STAR13...) [HRP](#)  
Goat Anti Mouse IgG (STAR76...) [RPE](#)  
Goat Anti Mouse IgG (STAR70...) [FITC](#)  
Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)  
Rabbit Anti Mouse IgG (STAR9...) [FITC](#)  
Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight®488](#), [DyLight®680](#),  
[DyLight®800](#), [FITC](#), [HRP](#)

### 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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