

## Datasheet: MCA2087SBV790

<b>Description:</b>	MOUSE ANTI HUMAN CD11c:StarBright Violet 790
<b>Specificity:</b>	CD11c
<b>Other names:</b>	INTEGRIN ALPHA X CHAIN
<b>Format:</b>	StarBright Violet 790
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	BU15
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	100 TESTS/0.5ml

### 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	▪			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

#### 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.

#### Product Form

Purified IgG conjugated to StarBright Violet 790 - liquid

#### Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
StarBright Violet 790	402	782

#### Preparation

Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant

#### Buffer Solution

Phosphate buffered saline

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<b>Preservative</b>	0.09% Sodium Azide (NaN <sub>3</sub> )
<b>Stabilisers</b>	1% Bovine Serum Albumin 0.1% Pluronic F68 0.1% PEG 3350 0.05% Tween 20

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**External Database Links**

**UniProt:**  
[P20702](#)    [Related reagents](#)

**Entrez Gene:**  
[3687](#) ITGAX    [Related reagents](#)

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**Synonyms**            CD11C

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**Specificity**            **Mouse anti Human CD11c antibody, clone Bu15** 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 ([Kohrgruber et al. 1999](#)). CD11c is also expressed at a lower level by granulocytes.

CD11c forms a heterodimeric integral membrane protein with the integrin beta 2 chain to form the leukocyte specific integrin '[inactivated-C3b receptor 4](#)'. CD11c interacts with a number of ligands including the [G-P-R](#) sequence in fibrinogen, ICAM-1 ([Frick et al. 2005](#)), iC3b ([Sadhu et al. 2007](#)) and Junctional adhesion molecule-like ([Bazzoni et al. 2011](#)). 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 ([Inqualls et al. 1995](#))

CD11c is expressed by hairy cell leukaemia cells ([Goodman et al. 2003](#); [Nicolaou et al. 2003](#)).

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**Flow Cytometry**            Use 5µl of the suggested working dilution to label 10<sup>6</sup> cells in 100µl. Best practices suggest a 5 minutes centrifugation at 6,000g prior to sample application.

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- References**
1. Hogg, N. *et al.* (1986) The p150,95 molecule is a marker of human mononuclear phagocytes: comparison with expression of class II molecules. [Eur J Immunol. 16 \(3\): 240-8.](#)
  2. 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.](#)
  3. Newman, K.C. *et al.* (2006) Cross-talk with myeloid accessory cells regulates human natural killer cell interferon-gamma responses to malaria. [PLoS Pathog. 2: e118.](#)
  4. 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.](#)
  5. 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.](#)
  6. Herman, S. *et al.* (2012) Regulatory T cells form stable and long-lasting cell cluster with myeloid dendritic cells (DC). [Int Immunol. 24 \(7\): 417-26.](#)

7. 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.](#)
8. 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.](#)
9. 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 \[Epub ahead of print\].](#)
10. de Vries, R.D. *et al.* (2014) Measles vaccination of nonhuman primates provides partial protection against infection with canine distemper virus. [J Virol. 88 \(8\): 4423-33.](#)

<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>Store at +4°C. DO NOT FREEZE.  This product should be stored undiluted.</p>
<b>Guarantee</b>	12 months from date of despatch
<b>Acknowledgements</b>	This product is covered by U.S. Patent No. 10,150,841 and related U.S. and foreign counterparts
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #20471 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA2087SBV790">https://www.bio-rad-antibodies.com/SDS/MCA2087SBV790</a> 20471
<b>Regulatory</b>	For research purposes only

## Related Products

### Recommended Useful Reagents

[HUMAN SEROBLOCK \(BUF070A\)](#)

[HUMAN SEROBLOCK \(BUF070B\)](#)

<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://www.bio-rad-antibodies.com/datasheets)

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