

Datasheet: MCA2087FT

Description:	MOUSE ANTI HUMAN CD11c:FITC
Specificity:	CD11c
Other names:	INTEGRIN ALPHA X CHAIN
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	BU15
Isotype:	IgG1
Quantity:	25 µg

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.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	■			Neat - 1/10

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.

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 conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	FITC	490	525
Preparation	Purified IgG prepared from tissue culture supernatant		
Buffer Solution	Phosphate buffered saline.		
Preservative Stabilisers	0.09% Sodium Azide		
	1% Bovine Serum Albumin		
Approx. Protein Concentrations	IgG concentration 0.1 mg/ml		
External Database Links	UniProt: P20702 Related reagents		

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

CD11C

Specificity

Mouse anti Human CD11c antibody, clone Bu15 recognizes the integrin alpha^x 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](#)).

Flow Cytometry

Use 10ul of the suggested working dilution to label 10⁶ cells in 100ul.

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. Loike, J.D. *et al.* (1991) CD11c/CD18 on neutrophils recognizes a domain at the N terminus of the A alpha chain of fibrinogen. [Proc Natl Acad Sci U S A. 88 \(3\): 1044-8.](#)
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. Sanchez-Madrid, F. and Corbi, A.L. (1992) Leukocyte integrins: structure, function and regulation of their activity. [Seminars Cell Biol. 3: 199-210.](#)
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. Bird, R.C. *et al.* (2011) An autologous dendritic cell canine mammary tumor hybrid-cell fusion vaccine. [Cancer Immunol Immunother. 60 \(1\): 87-97.](#)
7. Eisenhardt, S.U. *et al.* (2007) Generation of activation-specific human anti-alphaMbeta2 single-chain antibodies as potential diagnostic tools and therapeutic agents. [Blood. 109: 3521-8.](#)
8. 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.](#)
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.](#)
10. 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.](#)
11. 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.](#)
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.](#)

Further Reading

1. Larson, R.S. & Springer, T.A. (1990) Structure and function of leukocyte integrins. [Immunol Rev. 114: 181-217.](#)

Storage

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost free freezers is not recommended. This product is photosensitive and should be protected from light.

Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Shelf Life	18 months from date of despatch.
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Health And Safety Information	Material Safety Datasheet documentation #10041 available at: 10041: https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf
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Regulatory	For research purposes only
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Related Products

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:FITC \(MCA928F\)](#)

Recommended Useful Reagents

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

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

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