

Datasheet: MCA2087A647T

Description:	MOUSE ANTI HUMAN CD11c:Alexa Fluor® 647
Specificity:	CD11c
Other names:	INTEGRIN ALPHA X CHAIN
Format:	ALEXA FLUOR® 647
Product Type:	Monoclonal Antibody
Clone:	BU15
Isotype:	IgG1
Quantity:	25 TESTS/0.25ml

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. 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 Alexa Fluor® 647- liquid

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
Alexa Fluor®647	650	665

Preparation

Purified IgG prepared from tissue culture supernatant

Buffer Solution

Phosphate buffered saline

Preservative 0.09% Sodium Azide
Stabilisers 1% Bovine Serum Albumin

Approx. Protein Concentrations IgG concentration 0.05 mg/ml

External Database Links

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

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

Synonyms CD11C

RRID AB_2129803

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. 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.](#)
3. 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.](#)
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.](#)

Further Reading

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

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. Sanchez-Madrid, F. and Corbi, A.L. (1992) Leukocyte integrins: structure, function and regulation of their activity. [Seminars Cell Biol. 3: 199-210.](#)

Storage

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.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended. This product is photosensitive and should be protected from light.

Guarantee

12 months from date of despatch

Acknowledgements

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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>

Regulatory

For research purposes only

Related Products

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:Alexa Fluor® 647 \(MCA928A647\)](#)

Recommended Useful Reagents

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

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

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