

Datasheet: MCA1855A647

BATCH NUMBER 173973

Description:	MOUSE ANTI HUMAN CD161:Alexa Fluor® 647
Specificity:	CD161
Other names:	NKR-P1
Format:	ALEXA FLUOR® 647
Product Type:	Monoclonal Antibody
Clone:	B199.2
Isotype:	IgG1
Quantity:	100 TESTS/1ml

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

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		
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 by affinity chromatography on Protein A from tissue culture supernatant		
Buffer Solution	Phosphate buffered saline		
Preservative	0.09% sodium azide (NaN ₃)		
Stabilisers	1% bovine serum albumin		
Approx. Protein	IgG concentration 0.05 mg/ml		

Concentrations

Immunogen Purified human NK cells cultured in IL-2 ([Bennett et al. 1996](#))

External Database Links

UniProt:

[Q12918](#) [Related reagents](#)

Entrez Gene:

[3820](#) KLRB1 [Related reagents](#)

Synonyms CLEC5B, NKRP1A

Fusion Partners Spleen cells from immunised BALB/c mice were fused with cells of the mouse P2X63.Ag8.653 myeloma cell line.

Specificity

Mouse anti Human CD161 antibody, clone B199.2 recognizes the human Killer cell lectin-like receptor subfamily B member 1, also known as CD161, C-type lectin domain family 5 member B, HNKRP-1a, NKR-P1A or Natural killer cell surface protein P1A. CD161 is a 225 amino acid ~25 kDa predicted molecular mass, single pass type II transmembrane glycoprotein with a single [C-type lectin](#) domain. CD161 is expressed by almost all NK cells and a subset of CD3+ve T cells ([Lanier 1994](#)).

CD161, a member of the C-lectin is expressed as a disulphide bond-linked homodimeric cell surface protein, comprising two chains of ~40-44 kDa ([Lanier et al. 1994](#)). CD161 acts as a receptor for another c-type lectin, LLT1 with roles in the regulation of NK cell and T cell function ([Aldemir et al. 2005](#)).

Mouse anti Human CD161 antibody, clone B199.2 cross-competes with and recognizes a similar epitope to the DX1 monoclonal antibody ([Lanier et al. 1994](#)).

Flow Cytometry Use 10µl of the suggested working dilution to label 10⁶ cells in 100µl

References

1. Bennett, I.M. *et al.* (1996) Definition of a natural killer NKR-P1A+/CD56-/CD16- functionally immature human NK cell subset that differentiates *in vitro* in the presence of interleukin 12. [J Exp Med. 184 \(5\): 1845-56.](#)
2. Azzoni, L. *et al.* (1998) Differential transcriptional regulation of CD161 and a novel gene, 197/15a, by IL-2, IL-15, and IL-12 in NK and T cells. [J Immunol. 161 \(7\): 3493-500.](#)
3. Higai, K. *et al.* (2006) Binding of sialyl Lewis X antigen to lectin-like receptors on NK cells induces cytotoxicity and tyrosine phosphorylation of a 17-kDa protein. [Biochim Biophys Acta. 1760 \(9\): 1355-63.](#)
4. Birchall, M.A. *et al.* (2008) Immunologic response of the laryngeal mucosa to extraesophageal reflux. [Ann Otol Rhinol Laryngol. 117: 891-5.](#)
5. Huarte, E. *et al.* (2008) PILAR is a novel modulator of human T-cell expansion. [Blood. 112: 1259-68.](#)
6. Williams, P.J. *et al.* (2009) Altered decidual leucocyte populations in the placental bed in pre-eclampsia and foetal growth restriction: a comparison with late normal pregnancy. [Reproduction. 138: 177-84.](#)

7. Richter, J. *et al.* (2010) CD161 receptor participates in both impairing NK cell cytotoxicity and the response to glycans and vimentin in patients with rheumatoid arthritis. [Clin Immunol. 136: 139-47.](#)
8. de Lalla, C. *et al.* (2011) Invariant NKT Cell Reconstitution in Pediatric Leukemia Patients Given HLA-Haploidentical Stem Cell Transplantation Defines Distinct CD4+ and CD4- Subset Dynamics and Correlates with Remission State. [J Immunol. 186: 4490-9.](#)
9. Bossard, C. *et al.* (2012) Plasmacytoid dendritic cells and Th17 immune response contribution in gastrointestinal acute graft-versus-host disease. [Leukemia. 26: 1471-4.](#)
10. Abrahamsson, S.V. *et al.* (2013) Non-myeloablative autologous haematopoietic stem cell transplantation expands regulatory cells and depletes IL-17 producing mucosal-associated invariant T cells in multiple sclerosis. [Brain. 136: 2888-903.](#)
11. Rother, S. *et al.* (2015) The c.503T>C Polymorphism in the Human KLRB1 Gene Alters Ligand Binding and Inhibitory Potential of CD161 Molecules. [PLoS One. 10 \(8\): e0135682.](#)

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

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Health And Safety Information Material Safety Datasheet documentation #10041 available at: <https://www.bio-rad-antibodies.com/SDS/MCA1855A647>

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 \(BUF070B\)](#)

Product inquiries: www.bio-rad-antibodies.com/technical-support

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M450725:260518'

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