

## Datasheet: MCA1855SBUV540

<b>Description:</b>	MOUSE ANTI HUMAN CD161:StarBright UltraViolet 540
<b>Specificity:</b>	CD161
<b>Other names:</b>	NKR-P1
<b>Format:</b>	StarBright UltraViolet 540
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	B199.2
<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.

<b>Target Species</b>	Human		
<b>Product Form</b>	Purified IgG conjugated to StarBright UltraViolet 540 - liquid		
<b>Max Ex/Em</b>	<b>Fluorophore</b>	<b>Excitation Max (nm)</b>	<b>Emission Max (nm)</b>
	StarBright UltraViolet 540	338	540
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant		
<b>Buffer Solution</b>	Phosphate buffered saline		
<b>Preservative Stabilisers</b>	0.09% Sodium Azide (NaN <sub>3</sub> ) 1% Bovine Serum Albumin 0.1% Pluronic F68 0.1% PEG 3350		

0.05% Tween 20

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**Approx. Protein Concentrations** For information on the concentration of our StarBright Dye conjugated reagents please visit our [FAQ](#) page.

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

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**External Database Links**

**UniProt:**

[Q12918](#)

[Related reagents](#)

**Entrez Gene:**

[3820](#)

KLRB1

[Related reagents](#)

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**Synonyms** CLEC5B, NKRP1A

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

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**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](#)).

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**Flow Cytometry** Use 5µl of the suggested working dilution to label 0.5x10<sup>6</sup> cells in 100µl. Best practices suggest a 5 min centrifugation at 6,000g prior to sample application.

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**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.](#)
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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.](#)

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<b>Storage</b>	Store at +4°C. DO NOT FREEZE. This product should be stored undiluted.
<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/MCA1855SBUV540">https://www.bio-rad-antibodies.com/SDS/MCA1855SBUV540</a>
<b>Regulatory</b>	For research purposes only

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## Related Products

### Recommended Useful Reagents

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

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

**Product inquiries:** [www.bio-rad-antibodies.com/technical-support](http://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](http://bio-rad-antibodies.com/datasheets)

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