Datasheet: MCA1855PE

Description:	MOUSE ANTI HUMAN CD161:RPE
Specificity:	CD161
Other names:	NKR-P1
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	B199.2
Isotype:	IgG1
Quantity:	100 TESTS

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 R. Phycoerythrin (RPE) - lyophilized

Reconstitution

Reconstitute with 1 ml distilled water

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
RPE 488nm laser	496	578

Preparation

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

Buffer Solution

Phosphate buffered saline

Preservative Stabilisers

0.09% sodium azide (NaN_3)
1% bovine serum albumin
5% sucrose

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
RRID	AB_323302
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, HNKR-P1a, 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 10^6 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	Prior to reconstitution store at +4°C. Following reconstitution store at +4°C. DO NOT FREEZE. This product should be stored undiluted. This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #20487 available at: https://www.bio-rad-antibodies.com/SDS/MCA1855PE 20487
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL:RPE (MCA928PE)

Recommended Useful Reagents

HUMAN SEROBLOCK (BUF070A)
HUMAN SEROBLOCK (BUF070B)

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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
'M431642:240801'

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