Datasheet: MCA1266SBR775

BATCH NUMBER 100008376

Description:	MOUSE ANTI MOUSE CD161 / NK1.1:StarBright Red 775
Specificity:	CD161 / NK1.1
Format:	StarBright Red 775
Product Type:	Monoclonal Antibody
Clone:	PK136
Isotype:	IgG2a
Quantity:	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.

	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

Mouse

Species Cross Reactivity

Does not react with:Rat, Human

Product Form

Purified IgG conjugated to StarBright Red 775 - liquid

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
StarBright Red 775	653	778

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
0.1% Pluronic F68

	0.1% PEG 3350 0.05% Tween 20
Immunogen	Spleen and bone marrow cells from CE mice.
External Database Links	**UniProt:** P27814 Related reagents P27812 Related reagents **Entrez Gene:** 17059 Klrb1c Related reagents 80782 Klrb1b Related reagents
Synonyms	Ly55b, Ly55c, Nkrp1b, Nkrp1c
Fusion Partners	Spleen cells from immunized (C3H x BALB/c) FI Hybrid were fused with cells of the Sp2/0 - Ag14 myeloma cell line.
Specificity	**Mouse anti Mouse CD161 / NK1.1 antibody, clone PK136** recognizes the mouse NK1.1 cell surface antigen, a cell surface glycoprotein encoded by members of the NKR-P1 gene family. The NK1.1 surface antigen is also known as CD161b/CD161c and Ly-55. In the mouse the NKR-P1 family has three members, NKR-P1A, -B and -C, whilst in the human only one member has been identified. The human protein has received the designation CD161, and the mouse proteins have been referred to as CD161a, -b, -c etc. Although previously thought to recognize only CD161c, recent data has shown that the PK136 antibody may also react with CD161b. CD161c expression itself is strain specific in mice, but recognition of CD161b by PK136 appears to be even more complex, as only some CD161b positive strains are labelled by the antibody. Engagement of CD161c has been reported to have activating function in NK cells, whilst engagement of CD161b is inhibitory. Mouse anti Mouse NK1.1 Antigen antibody, clone PK136 is useful for the identification of NK cells in selected strains of mice (positive on C57BL, FVB/N and NZB, but negative on AKR and BALB/c) and is also expressed by rare subsets of T cells and monocytes. Mouse anti Mouse NK1.1 antibody, clone PK136 has also been used for *in vivo* depletion of NK cells (Wang *et al.* 2022) and *in vitro* activation of NK cells (Kung and Miller 1995).
Flow Cytometry	Use 5µl of the suggested working dilution to label 10^6 cells in 100µl. Best practices suggest a 5 minutes centrifugation at 6,000g prior to sample application.
References	1. Koo, G.C. *et al.* (1986) The NK-1.1(-) mouse: a model to study differentiation of murine NK cells. J Immunol. 137 (12): 3742-7. 2. Kung, S.K. & Miller RG (1995) The NK1.1 antigen in NK-mediated F1 antiparent killing *in vitro*. J Immunol. 154 (4): 1624-33. 3. Wang, M. *et al.* (1998) Natural killer cell depletion fails to influence initial CD4 T cell

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10. Sakai, T. *et al.* (2010) Inflammatory disease and cancer with a decrease in Kupffer cell numbers in Nucling-knockout mice. Int J Cancer. 126: 1079-94.
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13. Klezovich-Bénard M *et al.* (2012) Mechanisms of NK cell-macrophage *Bacillus anthracis* crosstalk: a balance between stimulation by spores and differential disruption by toxins. PLoS Pathog. 8 (1): e1002481.
14. Gock, H. *et al.* (2014) Altered glycosylation in donor mice causes rejection of strain-matched skin and heart grafts. Am J Transplant. 14 (4): 797-805.
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16. Flavell, D.J. *et al.* (2019) The TLR3 Agonist Poly Inosinic:Cytidylic Acid Significantly Augments the Therapeutic Activity of an Anti-CD7 Immunotoxin for Human T-cell Leukaemia. Biomedicines. 7 (1) Feb 16 [Epub ahead of print].
17. Miao, M. *et al.* (2021) Reevaluation of NOD/SCID Mice as NK Cell-Deficient Models. Biomed Res Int. 2021: 8851986.
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Further Reading

1. Arase, N. *et al.* (1997) Association with FcRgamma is essential for activation signal through NKR-P1 (CD161) in natural killer (NK) cells and NK1.1+ T cells. J Exp Med. 186 (12): 1957-63.

Storage

Store at +4°C. DO NOT FREEZE.

	This product should be stored undiluted.
Guarantee	12 months from date of despatch
Acknowledgements	This product is covered by U.S. Patent No. 10,150,841 and related U.S. and foreign counterparts
Health And Safety Information	Material Safety Datasheet documentation #20471 available at: https://www.bio-rad-antibodies.com/SDS/MCA1266SBR775
Regulatory	For research purposes only

Related Products

Recommended Useful Reagents

MOUSE SEROBLOCK FcR (BUF041A)
MOUSE SEROBLOCK FcR (BUF041B)

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
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