

Datasheet: MCA1266SBUV605

Description:	MOUSE ANTI MOUSE CD161 / NK1.1:StarBright UltraViolet 605
Specificity:	CD161 / NK1.1
Format:	StarBright UltraViolet 605
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	pecies Mouse					
Species Cross Reactivity	Does not react with:R	Does not react with:Rat, Human				
Product Form	Purified IgG conjugat	Purified IgG conjugated to StarBright UltraViolet 605 - liquid				
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)			
	StarBright UltraViolet 605	340	609			
Preparation	Purified IgG prepared supernatant	by affinity chromatog	raphy on Protein A fr	om tissue culture		
Buffer Solution	Phosphate buffered s	aline				
Preservative	0.09% sodium azide	(NaN ₃)				
Stabilisers	1% bovine serum alb	umin				
	0.1% Pluronic F68					

0.1% PEG 3350 0.05% Tween 20

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Spleen and bone marrow cells from CE mice.

External Database

Links

UniProt:

P27814 Related reagents
P27812 Related reagents

Entrez Gene:

17059 Klrb1c Related reagents80782 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 10⁶ cells in 100µl. Best practices suggest a 5 minutes centrifugation at 6,000g prior to sample application.

References

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- 3. Wang, M. et al. (1998) Natural killer cell depletion fails to influence initial CD4 T cell

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- 4. Halin, C. *et al.* (2002) Enhancement of the antitumor activity of interleukin-12 by targeted delivery to neovasculature. <u>Nat Biotechnol. 20 (3): 264-9.</u>
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- 7. Ebbinghaus, C. *et al.* (2005) Engineered vascular-targeting antibody-interferon-gamma fusion protein for cancer therapy. Int J Cancer. 116 (2): 304-13.
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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. <u>Int J Cancer. 126: 1079-94.</u>
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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.
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- 15. Gustafsson, Å. *et al.* (2015) Differential cellular responses in healthy mice and in mice with established airway inflammation when exposed to hematite nanoparticles. <u>Toxicol Appl Pharmacol. 288 (1): 1-11.</u>
- 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. <u>Biomedicines</u>. 7 (1) Feb 16 [Epub ahead of print].
- 17. Miao, M. *et al.* (2021) Reevaluation of NOD/SCID Mice as NK Cell-Deficient Models. <u>Biomed Res Int. 2021: 8851986.</u>
- 18. Li, L. & Li, M. (2023) Astrocyte-derived extracellular vesicles inhibit the abnormal activation of immune function in neonatal mice with hypoxic-ischemic brain damage by carrying miR-124-3p. Neurol Res. 45 (12): 1079-90.

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. <u>J Exp Med. 186</u> (12): 1957-63.

Storage

Store at +4°C.

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	gn
Health And Safety Information	Material Safety Datasheet documentation #20471 available at: https://www.bio-rad-antibodies.com/SDS/MCA1266SBUV605 20471	
Regulatory	For research purposes only	

Related Products

Recommended Useful Reagents

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

North & South Tel: +1 800 265 7376

America Fax: +1 919 878 3751

Worldwide

Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Europe To

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Email: antibody_sales_uk@bio-rad.com

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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 'M408847:221014'

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