

Datasheet: MCA1266 BATCH NUMBER 166705

Description:	MOUSE ANTI MOUSE CD161 / NK1.1		
Specificity:	CD161 / NK1.1		
Format:	Purified		
Product Type:	Monoclonal Antibody		
Clone:	PK136		
Isotype:	lgG2a		
Quantity:	0.25 mg		

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	•			5ug/ml - 10ug/ml
Immunohistology - Frozen				
Immunohistology - Paraffin				
ELISA				
Immunoprecipitation	•			
Western Blotting				
Cytotoxic Assays				1ug/ml - 10ug/ml

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 - liquid	
Preparation	Purified IgG prepared by affinity chromatography on Protein A supernatant	from tissue culture
Buffer Solution	Phosphate buffered saline	

Preservative Stabilisers	0.09% sodium azide (NaN ₃)
Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1 mg/ml
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
RRID	AB_322347
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 <i>in vivo</i> depletion of NK cells (<u>Wang et al. 2022</u>) and <i>in vitro</i> activation of NK cells (<u>Kung and Miller 1995</u>).
Flow Cytometry	Use 10 μ l of the suggested working dilution to label 1 x 10 6 cells in 100 μ l

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.
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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>
- 5. Carnemolla, B. *et al.* (2002) Enhancement of the antitumor properties of interleukin-2 by its targeted delivery to the tumor blood vessel extracellular matrix. Blood. 99: 1659-65.
- 6. Svensson, L. *et al.* (2003) gammadelta T cells contribute to the systemic immunoglobulin E response and local B-cell reactivity in allergic eosinophilic airway inflammation. Immunology. 108 (1): 98-108.
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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. <u>PLoS Pathog. 8 (1): e1002481.</u>
- 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. <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. Biomed Res Int. 2021: 8851986.
- 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. <i>et al.</i> (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	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.
Guarantee	12 months from date of despatch
Health And Safety	Material Safety Datasheet documentation #10040 available at:
Information	https://www.bio-rad-antibodies.com/SDS/MCA1266
	10040
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...)

RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)

RPE
Goat Anti Mouse IgG (STAR76...)

RPE

Goat Anti Mouse IgG (STAR76...)

RPE

Goat Anti Mouse IgG (STAR70...)

FITC

Goat Anti Mouse IgG (H/L) (STAR117...) Alk. Phos., DyLight®488, DyLight®550,

DyLight®650, DyLight®680, DyLight®800,

FITC, HRP

Rabbit Anti Mouse IgG (STAR9...) FITC

Goat Anti Mouse IgG (STAR77...) HRP

Goat Anti Mouse IgG (Fc) (STAR120...) FITC, HRP

Rabbit Anti Mouse IgG (STAR13...) HRP

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Printed on 08 Mar 2024

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