

## Datasheet: MCA1266A647

### BATCH NUMBER 1707

<b>Description:</b>	MOUSE ANTI MOUSE CD161 / NK1.1:Alexa Fluor® 647
<b>Specificity:</b>	CD161 / NK1.1
<b>Format:</b>	ALEXA FLUOR® 647
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	PK136
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	100 TESTS/1ml

## 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>	Mouse		
<b>Species Cross Reactivity</b>	Does not react with:Rat, Human		
<b>Product Form</b>	Purified IgG conjugated to Alexa Fluor 647 - liquid		
<b>Max Ex/Em</b>	<b>Fluorophore</b>	<b>Excitation Max (nm)</b>	<b>Emission Max (nm)</b>
	Alexa Fluor®647	650	665
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein A		
<b>Buffer Solution</b>	Phosphate buffered saline		
<b>Preservative Stabilisers</b>	0.09% Sodium Azide (NaN <sub>3</sub> ) 1% Bovine Serum Albumin		
<b>Approx. Protein</b>	IgG concentration 0.05 mg/ml		

## Concentrations

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**Immunogen** Spleen and bone marrow cells from CE mice.

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## External Database Links

### UniProt:

[P27814](#) [Related reagents](#)

[P27812](#) [Related reagents](#)

### Entrez Gene:

[17059](#) Klr1c [Related reagents](#)

[80782](#) Klr1b [Related reagents](#)

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**Synonyms** Ly55b, Ly55c, Nkrp1b, Nkrp1c

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**Fusion Partners** Spleen cells from immunised (C3H x BALB/c) FI Hybrid were fused with cells of the Sp2/0 - Ag14 myeloma cell line.

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## 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 and *in vitro* activation of NK cells.

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## Flow Cytometry

Use 10ul of the suggested working dilution to label  $10^6$  cells in 100ul.

The Fc region of monoclonal antibodies may bind non-specifically to cells expressing low affinity Fc receptors. This may be reduced by using SeroBlock FcR ([BUF041A/B](#))

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## References

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- NK cells. [J Immunol. 137 \(12\): 3742-7.](#)
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13. 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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15. 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.](#)
16. Halin, C. *et al.* (2002) Enhancement of the antitumor activity of interleukin-12 by targeted delivery to neovasculature. [Nat Biotechnol. 20 \(3\): 264-9.](#)
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18. 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 \[Epub ahead of print\].](#)

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**Storage**

Store at +4°C or at -20°C if preferred.

Storage in frost-free freezers is not recommended.

This product should be stored undiluted. This product is photosensitive and should be protected from light.

Avoid repeated freezing and thawing as this may denature the antibody. Should this

product contain a precipitate we recommend microcentrifugation before use

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**Guarantee** 12 months from date of despatch

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**Health And Safety Information** Material Safety Datasheet documentation #10041 available at: <https://www.bio-rad-antibodies.com/SDS/MCA1266A647>  
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**Regulatory** For research purposes only

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## Related Products

### Recommended Useful Reagents

[MOUSE SEROBLOCK FcR \(BUF041A\)](#)

[MOUSE SEROBLOCK FcR \(BUF041B\)](#)

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