

Datasheet: MCA2365A488

Description:	MOUSE ANTI BOVINE CD335:Alexa Fluor® 488
Specificity:	CD335
Other names:	NKp46
Format:	ALEXA FLUOR® 488
Product Type:	Monoclonal Antibody
Clone:	AKS1
Isotype:	IgG1
Quantity:	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.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			Neat - 1/10

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

Bovine

Species Cross Reactivity

Reacts with: American Bison

N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

Product Form

Purified IgG conjugated to Alexa Fluor® 488 - liquid

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
Alexa Fluor®488	495	519

Preparation

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

Buffer Solution

Phosphate buffered saline

Preservative	0.09% sodium azide (NaN ₃)
Stabilisers	1% bovine serum albumin
Approx. Protein Concentrations	IgG concentration 0.05 mg/ml
Immunogen	Fusion protein consisting of the extracellular region of bovine CD335.
External Database Links	<p>UniProt: Q863H2 Related reagents</p> <p>Entrez Gene: 369024 NCR1 Related reagents</p>
RRID	AB_2251168
Fusion Partners	Spleen cells from immunised Balb/c mice were fused with cells of the NS-0 myeloma cell line.
Specificity	<p>Mouse anti Bovine CD335 antibody, clone AKS1 recognizes bovine CD335, also known as NKp46 and Natural cytotoxicity triggering receptor 1. CD335 is a type I transmembrane protein, with two extracellular C2-type immunoglobulin-like domains, which functions as an activating receptor. CD335 is expressed by human natural killer cells (Sivori et al. 1997). The bovine homologue is expressed on bovine NK cells (Storset et al. 2004) and no expression of CD335 has been detected on B cells, T cells, monocytes or granulocytes.</p> <p>Clone AKS1 is reported to activate lysis of FcγR-expressing cell line P815, by IL-2 activated NKp46+ cells (Storset et al. 2004).</p>
Flow Cytometry	Use 10µl of the suggested working dilution to label 10 ⁶ cells in 100µl
References	<ol style="list-style-type: none"> 1. Storset, A.K. <i>et al.</i> (2004) NKp46 defines a subset of bovine leukocytes with natural killer cell characteristics. Eur J Immunol. 34 (3): 669-76. 2. Kulberg, S. <i>et al.</i> (2004) Reference values for relative numbers of natural killer cells in cattle blood. Dev Comp Immunol. 28 (9): 941-8. 3. Van Rhijn, I. <i>et al.</i> (2007) Massive, sustained γδ T cell migration from the bovine skin <i>in vivo</i>. J Leukoc Biol. 81: 968-73. 4. Toka, F.N. <i>et al.</i> (2011) Rapid and Transient Activation of γδ T Cells to IFN-γ Production, NK Cell-Like Killing, and Antigen Processing during Acute Virus Infection. J Immunol. 186: 4853-61. 5. Bastos, R.G. <i>et al.</i> (2008) Bovine NK cells acquire cytotoxic activity and produce IFN-γ after stimulation by <i>Mycobacterium bovis</i> BCG- or <i>Babesia bovis</i>-exposed splenic dendritic cells. Vet Immunol Immunopathol. 124: 302-12. 6. Boysen P <i>et al.</i> (2006) Bovine CD2-/NKp46+ cells are fully functional natural killer cells with a high activation status. BMC Immunol. 7: 10. 7. Elh mouzi-Younes, J. <i>et al.</i> (2009) Bovine neonate natural killer cells are fully functional and highly responsive to interleukin-15 and to NKp46 receptor stimulation. Vet Res. 40:

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Further Reading	<p>1. Sivori, S. <i>et al.</i> (1997) p46, a novel natural killer cell-specific surface molecule that mediates cell activation. J Exp Med. 186 (7): 1129-36.</p> <p>2. Storset, A.K. <i>et al.</i> (2003) Natural killer cell receptors in cattle: a bovine killer cell immunoglobulin-like receptor multigene family contains members with divergent signaling motifs. Eur J Immunol. 33 (4): 980-90.</p>
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Storage	<p>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.</p>
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Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended. This product is photosensitive and should be protected from light.

Guarantee	12 months from date of despatch
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Health And Safety Information	<p>Material Safety Datasheet documentation #10041 available at: https://www.bio-rad-antibodies.com/SDS/MCA2365A488 10041</p>
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Regulatory	For research purposes only
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Related Products

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:Alexa Fluor® 488 \(MCA928A488\)](#)

North & South America	<p>Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com</p>	Worldwide	<p>Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com</p>	Europe	<p>Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com</p>
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