

## Datasheet: MCA5933GA

**BATCH NUMBER 158827**

<b>Description:</b>	MOUSE ANTI SHEEP CD335
<b>Specificity:</b>	CD335
<b>Other names:</b>	NKp46
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	EC1.1
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	0.1 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](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			1/25 - 1/200
Immunohistology - Frozen	▪			
Immunohistology - Paraffin (1)	▪			
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting			▪	

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.

**(1) Clone EC1.1 is suitable for use on paraffin sections when fixed with zinc salts**  
**This product requires antigen retrieval using Renaissance TSA Biotin system®**

<b>Target Species</b>	Sheep
<b>Species Cross Reactivity</b>	<p>Reacts with: Bovine, Goat</p> <p><b>N.B.</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.</p>

<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.09% Sodium Azide (NaN <sub>3</sub> )
<b>Carrier Free</b>	Yes
<b>Approx. Protein Concentrations</b>	IgG concentration 1.0 mg/ml
<b>Immunogen</b>	OvNKp46-mFcγ2b fusion protein
<b>External Database Links</b>	<p><b>UniProt:</b></p> <p><a href="#">E5LDC2</a>      <a href="#">Related reagents</a></p> <p><a href="#">Q863H2</a>      <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b></p> <p><a href="#">369024</a>    NCR1    <a href="#">Related reagents</a></p>
<b>Fusion Partners</b>	Spleen cells from immunised Balb/c mice were fused with cells of the X63 myeloma cell line
<b>Specificity</b>	<p><b>Mouse anti Sheep CD335, clone EC1.1</b>, recognizes the ovine homologue of human CD335, also known as NKp46 and Natural cytotoxicity triggering receptor 1.</p> <p>CD335 is a type I transmembrane protein, with two extracellular C2-type immunoglobulin-like domains, which function as an activating receptor.</p> <p>Research has indicated that, in mammals, the CD335 antigen is confined to NK cells (<a href="#">Westergard et. al. 2004</a>) and that it is primarily expressed by a subset of natural killer (NK) cells which are CD3<sup>-ve</sup>, CD4<sup>-ve</sup> and CD2<sup>+ve</sup> with a small population also being CD8<sup>+ve</sup> (<a href="#">Storset et. al. 2004</a>). No expression of CD335 has been detected on B cells, T cells, monocytes or granulocytes.</p> <p>NK cells are cytotoxic and form a key component of the innate immune system where they are involved in mediating immunity to tumours and pathogens and in particular are critical to the process where the host recognizes and rejects tumour and viral infected cells.</p> <p>Clone EC1.1 (originally named as Gr13.1) is the first antibody specifically raised to ovine CD335 and provides a reagent enabling researchers to identify ovine NKp46 positive NK cells and may facilitate an increased understanding of the ovine immune system and in particular its role in host pathogen defence (<a href="#">Connelley et. al. 2011</a>).</p>

In addition to clone EC1.1, clones AKS1, which recognises CD335 (NKp46) in bovine and other ruminants, and VIV-KM1, which recognises porcine CD335, are also available from Bio-Rad.

<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul
<b>References</b>	<ol style="list-style-type: none"><li>1. Connelley, T. <i>et al.</i> (2011) NKp46 defines ovine cells that have characteristics corresponding to NK cells. <a href="#">Vet Res. 42: 37.</a></li><li>2. Olsen, L. <i>et al.</i> (2013) Characterization of NCR1+ cells residing in lymphoid tissues in the gut of lambs indicates that the majority are NK cells <a href="#">Vet Res. 44:109.</a></li><li>3. Goh, S. <i>et al.</i> (2016) Identification of <i>Theileria lestoquardi</i> Antigens Recognized by CD8+ T Cells. <a href="#">PLoS One. 11 (9): e0162571.</a></li></ol>
<b>Further Reading</b>	<ol style="list-style-type: none"><li>1. Elhmouzi-Younes, J. <i>et al.</i> (2010) Ovine CD16+/CD14- blood lymphocytes present all the major characteristics of natural killer cells. <a href="#">Vet Res. 41:4</a></li><li>2. Storset, A. K. <i>et al.</i> (2004) NKp46 defines a subset of bovine leukocytes with natural killer cell characteristics. <a href="#">Eur J Immunol. 34:669-676</a></li><li>3. Westgaard, I.H. <i>et al.</i> (2004) Rat NKp46 activates natural killer cell cytotoxicity and is associated with FcepsilonRIgamma and CD3zeta. <a href="#">J Leukoc Biol. 76 (6): 1200-6.</a></li><li>4. Boysen, P. <i>et al.</i> (2011) Natural killer cells in free-living <i>Mus musculus</i> have a primed phenotype. <a href="#">Mol Ecol. 20 (23): 5103-10.</a></li></ol>
<b>Storage</b>	<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> <p>Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.</p>
<b>Guarantee</b>	12 months from date of despatch
<b>Acknowledgements</b>	The Renaissance TSA Biotin system is a registered trademark of PerkinElmer, Waltham, USA
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10040 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA5933GA">https://www.bio-rad-antibodies.com/SDS/MCA5933GA</a> 10040
<b>Regulatory</b>	For research purposes only

## Related Products

### Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...)	<a href="#">RPE</a>
Goat Anti Mouse IgG IgA IgM (STAR87...)	<a href="#">HRP</a>
Goat Anti Mouse IgG (STAR76...)	<a href="#">RPE</a>
Rabbit Anti Mouse IgG (STAR13...)	<a href="#">HRP</a>

Goat Anti Mouse IgG (STAR70...)	<a href="#">FITC</a>
Goat Anti Mouse IgG (H/L) (STAR117...)	<a href="#">Alk. Phos.</a> , <a href="#">DyLight®488</a> , <a href="#">DyLight®550</a> , <a href="#">DyLight®650</a> , <a href="#">DyLight®680</a> , <a href="#">DyLight®800</a> , <a href="#">FITC</a> , <a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR9...)	<a href="#">FITC</a>
Goat Anti Mouse IgG (STAR77...)	<a href="#">HRP</a>
Goat Anti Mouse IgG (Fc) (STAR120...)	<a href="#">FITC</a> , <a href="#">HRP</a>

## Recommended Useful Reagents

[MOUSE ANTI HUMAN CD16 \(MCA5665GA\)](#)  
[MOUSE ANTI HUMAN CD16:FITC \(MCA5665F\)](#)  
[MOUSE ANTI HUMAN CD16:RPE \(MCA5665PE\)](#)  
[MOUSE ANTI SHEEP CD16-Like \(MCA919GA\)](#)  
[RAT ANTI HUMAN CD3:Pacific Blue® \(MCA1477PB\)](#)  
[RAT ANTI HUMAN CD3:FITC \(MCA1477F\)](#)  
[MOUSE ANTI BOVINE CD205 \(MCA1651GA\)](#)  
[MOUSE ANTI BOVINE CD205:FITC \(MCA1651F\)](#)

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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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](https://bio-rad-antibodies.com/datasheets)  
'M382419:210513'

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