

## Datasheet: MCA897GA

**BATCH NUMBER 161431**

<b>Description:</b>	MOUSE ANTI SHEEP MHC CLASS I
<b>Specificity:</b>	MHC CLASS I
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	VPM19
<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			▪	
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting (1)	▪			

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) Non-reducing conditions required**

<b>Target Species</b>	Sheep
<b>Species Cross Reactivity</b>	<p>Reacts with: Cat</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

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Buffer Solution	Phosphate buffered saline
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Preservative Stabilisers	0.09% Sodium Azide (NaN <sub>3</sub> )
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Carrier Free	Yes
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Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
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Immunogen	Sheep T cells.
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Fusion Partners	Spleen cells from immunized BALB/c mice were fused with cells of the mouse NS0 myeloma cell line.
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Specificity	<b>Mouse anti Sheep MHC Class I antibody, clone VPM19</b> recognizes the ovine homologue of the human MHC Class I, a monomorphic determinant expressed on the heavy chain of sheep MHC Class I, (OLA Class I).
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The major histocompatibility complex (MHC) is a cluster of genes that are important in the immune response to infections. In sheep, this is often referred to as the ovine leukocyte antigen (OLA) region. Ovine MHC Class I functions in the recognition and presentation of foreign antigens to T-cells.

Ovine MHC Class I is a membrane glycoprotein with a molecular weight of approximately 44kDa, expressed on the cell surface of all peripheral blood leucocytes.

Clone VPM19 has been in used in a number of domestic animal disease states, in particular Maedi Visna virus infection, a disease of significant importance in commercial sheep flocks ([Lee et al. 1996](#), [Ryan et. al. 2000](#) and [Wu et. al. 2008](#)). Mouse anti Sheep MHC Class I antibody, clone VPM19 recognizes MHC class I in other species and has been used in a study of feline herpes virus infection ([Montagnaro et. al. 2009](#)).

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Flow Cytometry	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.
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References	<ol style="list-style-type: none"><li>1. Hopkins, J. &amp; Dutia, B.M. (1990) Monoclonal antibodies to the sheep analogues of human CD45 (leucocyte common antigen), MHC class I and CD5. Differential expression after lymphocyte activation <i>in vivo</i>. <a href="#">Vet Immunol Immunopathol. 24 (4): 331-46.</a></li><li>2. Lee, W.C. et al. (1996) The phenotype and phagocytic activity of macrophages during maedi-visna virus infection. <a href="#">Vet Immunol Immunopathol. 51 (1-2): 113-26.</a></li><li>3. Ryan, S. et al. (2000) Infection of dendritic cells by the Maedi-Visna lentivirus. <a href="#">J Virol. 74 (21): 10096-103.</a></li><li>4. Chan, S.S. et al. (2002) Generation and characterization of ovine dendritic cells derived from peripheral blood monocytes. <a href="#">Immunology. 107: 366-72.</a></li><li>5. Wu, C. et al. (2008) Mapping and characterization of visna/maedi virus cytotoxic T-lymphocyte epitopes. <a href="#">J Gen Virol. 89 (Pt 10): 2586-96.</a></li></ol>
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6. Montagnaro, S. *et al.* (2009) Feline herpesvirus-1 down-regulates MHC class I expression in an homologous cell system. [J Cell Biochem. 106: 179-85.](#)

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<b>Storage</b>	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.
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Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

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<b>Guarantee</b>	12 months from date of despatch
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<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10040 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA897GA">https://www.bio-rad-antibodies.com/SDS/MCA897GA</a> 10040
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<b>Regulatory</b>	For research purposes only
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## Related Products

### Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...)	<a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR12...)	<a href="#">RPE</a>
Goat Anti Mouse IgG IgA IgM (STAR87...)	<a href="#">Alk. Phos.</a> , <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 (Fc) (STAR120...)	<a href="#">FITC</a> , <a href="#">HRP</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)  
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