

Datasheet: MCA897GA

BATCH NUMBER 165958

Description:	MOUSE ANTI SHEEP MHC CLASS I
Specificity:	MHC CLASS I
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	VPM19
Isotype:	IgG1
Quantity:	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.

	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

Target Species	Sheep
Species Cross Reactivity	<p>Reacts with: Cat</p> <p>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.</p>
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein A from tissue culture

supernatant

Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide (NaN ₃)
Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Sheep T cells.
Fusion Partners	Spleen cells from immunized BALB/c mice were fused with cells of the mouse NS0 myeloma cell line.
Specificity	Mouse anti Sheep MHC Class I antibody, clone VPM19 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).

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](#)).

Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells in 100ul.
-----------------------	---

References	<ol style="list-style-type: none">1. Hopkins, J. & 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>. Vet Immunol Immunopathol. 24 (4): 331-46.2. Lee, W.C. et al. (1996) The phenotype and phagocytic activity of macrophages during maedi-visna virus infection. Vet Immunol Immunopathol. 51 (1-2): 113-26.3. Ryan, S. et al. (2000) Infection of dendritic cells by the Maedi-Visna lentivirus. J Virol. 74 (21): 10096-103.4. Chan, S.S. et al. (2002) Generation and characterization of ovine dendritic cells derived from peripheral blood monocytes. Immunology. 107: 366-72.5. Wu, C. et al. (2008) Mapping and characterization of visna/maedi virus cytotoxic T-lymphocyte epitopes. J Gen Virol. 89 (Pt 10): 2586-96.
-------------------	--

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.](#)

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 Information	Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/MCA897GA 10040
--------------------------------------	---

Regulatory	For research purposes only
-------------------	----------------------------

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...)	HRP
Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	Alk. Phos. , HRP
Goat Anti Mouse IgG (STAR76...)	RPE
Rabbit Anti Mouse IgG (STAR13...)	HRP
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 (Fc) (STAR120...)	FITC , HRP

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

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M381619:210512'

Printed on 18 Jan 2024