

Datasheet: MCA1097GA

Description:	iption: MOUSE ANTI SHEEP CD31	
Specificity:	CD31	
Other names:	PECAM-1	
Format:	Purified	
Product Type:	Monoclonal Antibody	
Clone:	CO.3E1D4	
Isotype:	IgG2a	
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	•			1/10 - 1/25
Immunohistology - Frozen				
Immunohistology - Paraffin				
ELISA				
Immunoprecipitation				
Western Blotting			•	

Where this antibody 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 antibody for use in their own system using appropriate negative/positive controls.

Target Species	Sheep
Species Cross Reactivity	Reacts with: Goat, Bovine 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 - 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	Ovine leucocytes.
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the SP2-0/Ag14 mouse myeloma cell line.
Specificity	Mouse anti Sheep CD31 antibody, clone CO.3E1D4 recognizes ovine CD31, also known as PECAM-1.
	Ovine CD31 is predominantly expressed by peripheral blood platelets and a small percentage of lymphocytes. CD31 is also highly expressed by ovine endothelial cells.
	Mouse anti Sheep CD31 antibody, clone CO.3E1D4 is reported to inhibit homotypic leucocyte aggregation induced by anti CD43 antibodies (<u>Pintado et al. 1995</u>).
Flow Cytometry	Use 10 μ l of the suggested working dilution to label 1 x 10 ⁶ cells in 100 μ l
References	 Brodersen, R. et al. (1998) Analysis of the immunological cross reactivities of 213 well characterized monoclonal antibodies with specificities against various leucocyte surface antigens of human and 11 animal species: Vet. Immunol. Immunopathol. 64: 1-13. Newland, A. et al. (2004) Ovine dendritic cells transduced with an adenoviral CTLA4eEGFP fusion protein construct induce hyporesponsiveness to allostimulation. Immunology. 113: 310-7. Summers, C. et al. (2005) An influx of macrophages is the predominant local immune response in ovine pulmonary adenocarcinoma. Vet Immunol Immunopathol. 106 (3-4): 285-94. Zannettino, A.C. et al. (2010) Comparative assessment of the osteoconductive
	properties of different biomaterials <i>in vivo</i> seeded with human or ovine mesenchymal stem/stromal cells. <u>Tissue Eng Part A. 16 (12): 3579-87.</u> 5. De Visscher, G. <i>et al.</i> (2010) Selection of an immunohistochemical panel for cardiovascular research in sheep. <u>Appl Immunohistochem Mol Morphol. 18: 382-91.</u> 6. Filby, C.E. <i>et al.</i> (2010) Partial pulmonary embolization disrupts alveolarization in fetal sheep. <u>Respir Res. 11: 42.</u> 7. Boos, A.M. <i>et al.</i> (2011) Directly auto-transplanted mesenchymal stem cells induce bone formation in a ceramic bone substitute in an ectopic sheep model. <u>J Cell Mol Med. 15 (6): 1364-78.</u> 8. Berardinelli, P. <i>et al.</i> (2013) Role of amniotic fluid mesenchymal cells engineered on MgHA/collagen-based scaffold allotransplanted on an experimental animal study of sinus

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- 13. Nielsen, E.Ø. *et al.* (2018) Optimizing Osteogenic Differentiation of Ovine Adipose-Derived Stem Cells by Osteogenic Induction Medium and FGFb, BMP2, or NELL1 *In Vitro*. Stem Cells Int. 2018: 9781393.
- 14. López-Fernández, A. *et al.* (2020) Effect of Allogeneic Cell-Based Tissue-Engineered Treatments in a Sheep Osteonecrosis Model. Tissue Eng Part A. 26 (17-18): 993-1004.
- 15. Zhang, T.M. *et al.* (2024) YAP promotes the early development of temporomandibular joint bony ankylosis by regulating mesenchymal stem cell function. <u>Sci Rep. 14 (1):</u> 12704.
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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/MCA1097GA 10040
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...)

Goat Anti Mouse IgG IgA IgM (STAR87...)

RPE

Goat Anti Mouse IgG (STAR76...)

RPE

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 (STAR13...) HRP

Goat Anti Mouse IgG (Fc) (STAR120...) FITC, HRP

Rabbit Anti Mouse IgG (STAR9...) FITC

Goat Anti Mouse IgG (STAR77...) HRP

 North & South
 Tel: +1 800 265 7376
 Worldwide
 Tel: +44 (0)1865 852 700
 Europe
 Tel: +49 (0) 89 8090 95 21

 America
 Fax: +1 919 878 3751
 Fax: +44 (0)1865 852 739
 Fax: +49 (0) 89 8090 95 50

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets 'M408093:221010'

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