

Datasheet: MCA1097F

BATCH NUMBER 1705

Description:	MOUSE ANTI SHEEP CD31:FITC
Specificity:	CD31
Other names:	PECAM-1
Format:	FITC
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	▪			Neat

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 conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid

Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	FITC	490	525

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 1% Bovine Serum Albumin
Approx. Protein Concentrations	IgG concentration 0.1 mg/ml
Immunogen	Ovine leucocytes.
RRID	AB_566719
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the SP2-0/Ag14 mouse myeloma cell line.
Specificity	<p>Mouse anti Sheep CD31 antibody, clone CO.3E1D4 recognizes ovine CD31, also known as PECAM-1.</p> <p>Ovine CD31 is predominantly expressed by peripheral blood platelets and a small percentage of lymphocytes. CD31 is also highly expressed by ovine endothelial cells.</p> <p>Mouse anti Sheep CD31 antibody, clone CO.3E1D4 is reported to inhibit homotypic leucocyte aggregation induced by anti CD43 antibodies (Pintado et al. 1995).</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label 1×10^6 cells in 100ul.
References	<ol style="list-style-type: none"> 1. Brodersen, R. <i>et al.</i> (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. 2. Pintado. C. O. <i>et al.</i> (1995) A monoclonal antibody to an ovine gp130 molecule inhibits homotypic aggregation induced by anti CD43 monoclonal antibodies of ruminant leukocytes. Immunol. Lett. 45: 81 - 85. 3. Zannettino, A.C. <i>et al.</i> (2010) Comparative assessment of the osteoconductive properties of different biomaterials <i>in vivo</i> seeded with human or ovine mesenchymal stem/stromal cells. Tissue Eng Part A. 16 (12): 3579-87. 4. Newland, A. <i>et al.</i> (2004) Ovine dendritic cells transduced with an adenoviral CTLA4eGFP fusion protein construct induce hyporesponsiveness to allostimulation. Immunology. 113: 310-7. 5. De Visscher, G. <i>et al.</i> (2010) Selection of an immunohistochemical panel for cardiovascular research in sheep. Appl Immunohistochem Mol Morphol. 18: 382-91. 6. Filby, C.E. <i>et al.</i> (2010) Partial pulmonary embolization disrupts alveolarization in fetal sheep. Respir Res. 11: 42. 7. 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 augmentation. Clin Oral Investig. 17 (7): 1661-75. 8. Summers, C. <i>et al.</i> (2005) An influx of macrophages is the predominant local immune response in ovine pulmonary adenocarcinoma. Vet Immunol Immunopathol. 106 (3-4): 285-94.

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13. Weigand, A. *et al.* (2017) Bone Tissue Engineering Under Xenogeneic-Free Conditions in a Large Animal Model as a Basis for Early Clinical Applicability. [Tissue Eng Part A. 23 \(5-6\): 208-22.](#)
14. 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.](#)
15. Barboni, B. *et al.* (2013) Synthetic bone substitute engineered with amniotic epithelial cells enhances bone regeneration after maxillary sinus augmentation. [PLoS One. 8 \(5\): e63256.](#)

Storage

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost free freezers is not recommended. This product is photosensitive and should be protected from light.

Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Guarantee

12 months from date of despatch

Health And Safety Information

Material Safety Datasheet documentation #10041 available at: <https://www.bio-rad-antibodies.com/SDS/MCA1097F>
10041

Regulatory

For research purposes only

Related Products

Recommended Negative Controls

[MOUSE IgG2a NEGATIVE CONTROL:FITC \(MCA929F\)](#)

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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

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