Datasheet: MCA2219F

Description:	MOUSE ANTI SHEEP CD44:FITC
Specificity:	CD44
Other names:	H-CAM, PGP-1
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	25.32
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	▪			Neat - 1/10

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.

Target Species

Sheep

Species Cross Reactivity

Reacts with: Bovine, Goat, Human

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 (NaN_3) 1% bovine serum albumin
Approx. Protein Concentrations	IgG concentration 0.1 mg/ml
Immunogen	Ovine efferent lymphatic duct lymphocytes
RRID	AB_323830
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the mouse NS-1 myeloma cell line.
Specificity	**Mouse anti Sheep CD44 antibody, clone 25.32** recognises the ovine CD44 cell surface antigen, a ~95 kDa glycoprotein expressed by most leucocytes and a subpopulation of thymocytes. In immunohistochemical staining, this antibody labels several cell types including medullary thymocytes, kupffer cells, kidney tubular epithelial cells and gut smooth muscle cells. The expression of CD44 is upregulated upon cell activation. Mouse anti Sheep CD44 antibody, clone 25.32 is a valuable ragent for the isolation and characterization of ovine mesenchymal stem cells along with CD29 and CD166 which are also expressed on this cell type, in contrast to hematopoietic sell markers including CD45 which is negative on this mesenchymal stem sell population (Sanjurjo-Rodríguez *et al.* 2017).
Flow Cytometry	Use 10µl of the suggested working dilution to label 1 x 10^6 cells in 100µl
References	1. Aleksandersen, M. *et al.* (1990) Distribution of lymphocyte subsets in the large intestinal lymphoid follicles of lambs. Immunology. 70 (3): 391-7. 2. Witherden, D.A. *et al.* (1995) Antigen-independent maturation of CD2, CD11a/CD18, CD44, and CD58 expression on thymic emigrants in fetal and postnatal sheep. Dev Immunol. 4:199-209 3. Stevenson, L.M. *et al.* (2001) Expression of cell surface adhesion molecules by peripheral blood eosinophils during *Trichostrongylus colubriformis* infection in sheep. Immunol Cell Biol. 79 (3): 240-4. 4. Perry, K. *et al.* (2010) Hyaluronan (HA) content, the ratio of HA fragments and the expression of CD44 in the ovine cervix vary with the stage of the oestrous cycle. Reproduction. 140:133-41. 5. Sanjurjo-Rodríguez, C. *et al.* (2017) Ovine Mesenchymal Stromal Cells: Morphologic, Phenotypic and Functional Characterization for Osteochondral Tissue Engineering. PLoS One. 12 (1): e0171231. 6. Wooldridge, A.L. *et al.* (2019) Maternal allergic asthma during pregnancy alters fetal lung and immune development in sheep: potential mechanisms for programming asthma and allergy. J Physiol. 597 (16): 4251-62. 7. 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. 8. Savy, V. *et al.* (2021) Effect of Embryo Aggregation on *In Vitro* Development of Adipose-Derived Mesenchymal Stem Cell-Derived Bovine Clones. Cell Reprogram. 23 (5):

277-289.
9. Zhang, P. *et al.* (2021) Differences in the biological properties of mesenchymal stromal cells from traumatic temporomandibular joint fibrous and bony ankylosis: a comparative study Animal Cells and Systems. : 1-16.
10. Castillo, M.G. *et al.* (2023) Promoting early neovascularization by allotransplanted adipose-derived Muse cells in an ovine model of acute myocardial infarction. PLoS One. 18 (1): e0277442.

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. This product is photosensitive and should be protected from light.
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/MCA2219F 10041
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL:FITC (MCA928F)

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

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