# Datasheet: MCA2220F

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| **Description:** | MOUSE ANTI SHEEP CD45:FITC |
| **Specificity:** | CD45 |
| **Other names:** | LCA |
| **Format:** | FITC |
| **Product Type:** | Monoclonal Antibody |
| **Clone:** | 1.11.32 |
| **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 - 1/5 |

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: Bovine, Goat

**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

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| **Preservative Stabilisers** | 0.09% Sodium Azide<br>1% Bovine Serum Albumin |
| **Approx. Protein Concentrations** | IgG concentration 0.1 mg/ml |
| **Immunogen** | Ovine efferent lymphatic duct lymphocytes. |
| **RRID** | AB_323780 |
| **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 CD45 antibody, clone 1.11.32** recognizes the ovine CD45 (Leucocyte common antigen), expressed on all ovine lymphocytes, macrophages and granulocytes. Mouse anti Sheep CD45 antibody, clone 1.11.32 immunoprecipitates CD45 molecules of 190 kDa, 210 kDa and 225 kDa from lymph node lysates. |
| **Flow Cytometry** | Use 10ul of the suggested working dilution to label $10^6$ cells in 100ul. |
| **References** | 1. Mackay, C.R. *et al.* (1987) A monoclonal antibody to the p220 component of sheep LCA identifies B cells and a unique lymphocyte subset. Cell Immunol. 110 (1): 46-55.<br>2. Zannettino, A.C. *et al.* (2010) Comparative assessment of the osteoconductive properties of different biomaterials in vivo seeded with human or ovine mesenchymal stem/stromal cells. Tissue Eng Part A. 16 (12): 3579-87.<br>3. Mackay, C.R. *et al.* (1989) Gamma/delta T cells express a unique surface molecule appearing late during thymic development. Eur J Immunol. 19 (8): 1477-83.<br>4. Breugelmans, S. *et al.* (2011) Immunoassay of lymphocyte subsets in ovine palatine tonsils. Acta Histochem. 113 (4): 416-22.<br>5. Breugelmans, S. *et al.* (2011) Differences between the ovine tonsils based on an immunohistochemical quantification of the lymphocyte subpopulations. Comp Immunol Microbiol Infect Dis. 34: 217-25.<br>6. Herdrich, B.J. *et al.* (2010) Regenerative healing following foetal myocardial infarction. Eur J Cardiothorac Surg. 38: 691-8.<br>7. Reichert, J.C. *et al.* (2010) Ovine bone- and marrow-derived progenitor cells and their potential for scaffold-based bone tissue engineering applications *in vitro* and *in vivo*. J Tissue Eng Regen Med. 4: 565-76.<br>8. Galinsky, R. *et al.* (2011) Effect of intra-amniotic lipopolysaccharide on nephron number in preterm fetal sheep. Am J Physiol Renal Physiol. 301 (2): F280-5.<br>9. Kallapur, S.G. *et al.* (2011) Pulmonary and systemic inflammatory responses to intra-amniotic IL-1α in fetal sheep. Am J Physiol Lung Cell Mol Physiol. 301 (3): L285-95.<br>10. Stickler, P. *et al.* (2010) Cyclically stretching developing tissue in vivo enhances mechanical strength and organization of vascular grafts. Acta Biomater. 6 (7): 2448-56.<br>11. Berardinelli, P. *et al.* (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.<br>12. Geherin, S.A. *et al.* (2012) The skin, a novel niche for recirculating B cells. J Immunol. 188: 6027-35. |

13. Jahroomishirazi, R. *et al.* (2014) Isolation and Characterization of CD271$^{+}$ Stem Cells Derived from Sheep Dermal Skin. Cells Tissues Organs. 200 (2): 141-52.
14. Stephens, E.H. *et al.* (2016) Extracellular matrix remodeling in wound healing of critical size defects in the mitral valve leaflet. Heart Vessels. 31 (7): 1186-95.
15. Mokhtari, S. *et al.* (2016) Boosting Hematopoietic Engraftment after *in Utero* Transplantation through Vascular Niche Manipulation. Stem Cell Reports. 6 (6): 957-69.
16. Bischoff, J. *et al.* (2016) CD45 Expression in Mitral Valve Endothelial Cells After Myocardial Infarction. Circ Res. 119 (11): 1215-25.
17. Lydon, H. *et al.* (2018) Peripheral mononuclear blood cell apheresis in a preclinical ovine model. BMC Vet Res. 14 (1): 47.
18. Schwarz, E.R. *et al.* (2020) Experimental Infection of Mid-Gestation Pregnant Female and Intact Male Sheep with Zika Virus. Viruses. 12 (3)Mar 07 [Epub ahead of print].
19. 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.
20. Ramm, R. *et al.* (2020) Decellularization combined with enzymatic removal of N-linked glycans and residual DNA reduces inflammatory response and improves performance of porcine xenogeneic pulmonary heart valves in an ovine *in vivo* model. Xenotransplantation. 27 (2): e12571.

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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.<br><br>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:<br>10041: https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf |
| **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
'M385626:210513'

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