

## Datasheet: MCA1097GA

**BATCH NUMBER 154200**

|                      |                       |
|----------------------|-----------------------|
| <b>Description:</b>  | MOUSE ANTI SHEEP CD31 |
| <b>Specificity:</b>  | CD31                  |
| <b>Other names:</b>  | PECAM-1               |
| <b>Format:</b>       | Purified              |
| <b>Product Type:</b> | Monoclonal Antibody   |
| <b>Clone:</b>        | CO.3E1D4              |
| <b>Isotype:</b>      | IgG2a                 |
| <b>Quantity:</b>     | 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](http://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.

|                                 |  |
|---------------------------------|--|
| <b>Target Species</b>           | Sheep  |
| <b>Species Cross Reactivity</b> | <p>Reacts with: Goat, Bovine</p> <p><b>N.B.</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> |
| <b>Product Form</b>             | Purified IgG - liquid  |
| <b>Preparation</b>              | Purified IgG prepared by affinity chromatography on Protein A from tissue culture  |

supernatant

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|------------------------|---------------------------|
| <b>Buffer Solution</b> | Phosphate buffered saline |
|------------------------|---------------------------|

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|---------------------------------|--|
| <b>Preservative Stabilisers</b> | 0.09% Sodium Azide (NaN <sub>3</sub> ) |
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| <b>Carrier Free</b> | Yes |
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| <b>Approx. Protein Concentrations</b> | IgG concentration 1.0 mg/ml |
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| <b>Immunogen</b> | Ovine leucocytes. |
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| <b>Fusion Partners</b> | Spleen cells from immunised BALB/c mice were fused with cells of the SP2-0/Ag14 mouse myeloma cell line. |
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| <b>Specificity</b> | <p><b>Mouse anti Sheep CD31 antibody, clone CO.3E1D4</b> 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 (<a href="#">Pintado <i>et al.</i> 1995</a>).</p> |
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| <b>Flow Cytometry</b> | Use 10ul of the suggested working dilution to label 1 x 10 <sup>6</sup> cells in 100ul. |
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|-------------------|--|
| <b>References</b> | <ol style="list-style-type: none"><li>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: <a href="#">Vet. Immunol. Immunopathol. 64: 1-13.</a></li><li>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. <a href="#">Immunol. Lett. 45: 81 - 85.</a></li><li>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. <a href="#">Tissue Eng Part A. 16 (12): 3579-87.</a></li><li>4. Newland, A. <i>et al.</i> (2004) Ovine dendritic cells transduced with an adenoviral CTLA4eEGFP fusion protein construct induce hyporesponsiveness to allostimulation. <a href="#">Immunology. 113: 310-7.</a></li><li>5. De Visscher, G. <i>et al.</i> (2010) Selection of an immunohistochemical panel for cardiovascular research in sheep. <a href="#">Appl Immunohistochem Mol Morphol. 18: 382-91.</a></li><li>6. Filby, C.E. <i>et al.</i> (2010) Partial pulmonary embolization disrupts alveolarization in fetal sheep. <a href="#">Respir Res. 11: 42.</a></li><li>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. <a href="#">Clin Oral Investig. 17 (7): 1661-75.</a></li><li>8. Summers, C. <i>et al.</i> (2005) An influx of macrophages is the predominant local immune</li></ol> |
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9. Lasecka L *et al.* (2015) Antibodies to the core proteins of nairobi sheep disease virus/ganjam virus reveal details of the distribution of the proteins in infected cells and tissues. [PLoS One. 10 \(4\): e0124966.](#)

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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.](#)

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| <b>Storage</b>                       | Store at +4°C or at -20°C if preferred.<br>Storage in frost-free freezers is not recommended.<br>This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use. |
| <b>Guarantee</b>                     | 12 months from date of despatch   |
| <b>Health And Safety Information</b> | Material Safety Datasheet documentation #10040 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA1097GA">https://www.bio-rad-antibodies.com/SDS/MCA1097GA</a><br>10040   |
| <b>Regulatory</b>                    | For research purposes only  |

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## Related Products

### Recommended Secondary Antibodies

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|---|--|
| Goat Anti Mouse IgG (STAR77...)         | <a href="#">HRP</a>                              |
| Rabbit Anti Mouse IgG (STAR12...)       | <a href="#">RPE</a>                              |
| Goat Anti Mouse IgG IgA IgM (STAR87...) | <a href="#">Alk. Phos.</a> , <a href="#">HRP</a> |
| Goat Anti Mouse IgG (STAR76...)         | <a href="#">RPE</a>                              |
| Goat Anti Mouse IgG (Fc) (STAR120...)   | <a href="#">FITC</a> , <a href="#">HRP</a>       |
| Rabbit Anti Mouse IgG (STAR13...)       | <a href="#">HRP</a>                              |
| Goat Anti Mouse IgG (STAR70...)         | <a href="#">FITC</a>                             |

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](#)

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