

# Datasheet: MCA1649G BATCH NUMBER 163025

Description:	MOUSE ANTI BOVINE CD62L		
Specificity:	CD62L		
Other names:	LECAM-1, L-SELECTIN		
Format:	Purified		
Product Type:	Monoclonal Antibody		
Clone:	CC32		
Isotype:	lgG1		
Quantity:	0.25 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 <a href="www.bio-rad-antibodies.com/protocols">www.bio-rad-antibodies.com/protocols</a>.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry				1/50 - 1/100
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	Bovine			
Species Cross	Reacts with: Sheep			
Reactivity	<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.			
Product Form	Purified IgG - liquid			
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture			

supernatant

Buffer Solution	Phosphate buffered saline		
Preservative Stabilisers	0.09% Sodium Azide		
Carrier Free	Yes		
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml		
Immunogen	Bovine lymphocytes		
External Database Links	UniProt: P98131 Related reagents		
	Entrez Gene:  281485 SELL Related reagents		
RRID	AB_905969		
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the NS1 myeloma cell line.		
Specificity	Mouse anti Bovine CD62L antibody, clone CC32 recognizes bovine L-selectin, also known as CD62L, Leukocyte-endothelial cell adhesion molecule 1, LECAM-1 or Lymph node homing receptor.		
	Bovine CD62L is a 370 amino acid ~90 kDa, single pass type I transmembrane glycoprotein bearing a single <u>C-type lectin</u> domain, an <u>EGF-like</u> domain and two <u>Sushi</u> domains ( <u>UniProt: P98131</u> ). Immunoprecipitation of peripheral blood mononuclear cell lysates with Mouse anti Bovine CD62L antibody, clone CC32 reveals a molecule of ~90 kDa when run on polyacrylamide gels under reducing conditions, slightly larger than the murine and human CD62L homologues. Bovine CD62L is expressed on subpopulations of T-lymphocytes expressing CD2, CD4 and CD8. WC1 positive $\gamma/\delta$ T cells also express CD62L as do a subpopulation of WC3 <sup>+Ve</sup> B-lymphocytes and all peripheral blood monocytes ( <u>Howard <i>et al.</i> 1992</u> ).		
	Mouse anti Bovine CD62L antibody, clone CC32 has also been used successfully for the identification of CD62L on ovine peripheral blood cells by flow cytometry ( <u>Halliday et al.</u> 2005).		
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.		
References	1. Sopp, P. & Howard, C.J. (2001) IFN gamma and IL-4 production by CD4, CD8 and WC1 gamma delta TCR(+) T cells from cattle lymph nodes and blood. <u>Vet Immunol Immunopathol. 81 (1-2): 85-96.</u>		

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- 3. Vesosky, B. *et al.* (2003) Activation marker expression on bovine peripheral blood gammadelta T cells during post-natal development and following vaccination with a commercial polyvalent viral vaccine. <u>Dev Comp Immunol. 27: 439-47.</u>
- 4. Edwards, J.C. *et al.* (2010) PrP<sup>(Sc)</sup> is associated with B cells in the blood of scrapie-infected sheep. <u>Virology</u>. 405: 110-9.
- 5. Glew, E.J. *et al.* (2003) Differential effects of bovine viral diarrhoea virus on monocytes and dendritic cells. <u>J Gen Virol. 84: 1771-80.</u>
- 6. Vrieling M *et al.* (2012) γδ T cell homing to skin and migration to skin-draining lymph nodes is CCR7 independent. <u>J Immunol</u>. 188 (2): 578-84.
- 7. Brackenbury, L.S. *et al.* (2005) Identification of a cell population that produces alpha/beta interferon *in vitro* and *in vivo* in response to noncytopathic bovine viral diarrhea virus. <u>J Virol. 79: 7738-44.</u>
- 8. Whelan, A.O. *et al.* (2011) Development of an Antibody to Bovine IL-2 Reveals Multifunctional CD4 T(EM) Cells in Cattle Naturally Infected with Bovine Tuberculosis. PLoS One. 6: e29194.
- 9. Riollet, C. *et al.* (2001) Cell subpopulations and cytokine expression in cow milk in response to chronic *Staphylococcus aureus* infection. <u>J Dairy Sci. 84: 1077-84.</u>
- 10. Ozawa, T. *et al.* (2011) Effect of intramammary infusion of rbGM-CSF on SCC and expression of polymorphonuclear neutrophil adhesion molecules in subclinical mastitis cows. <u>Vet Res Commun. 36: 21-7.</u>
- 11. Silvestre, F.T. *et al.* (2011) Effects of differential supplementation of fatty acids during the peripartum and breeding periods of Holstein cows: II. Neutrophil fatty acids and function, and acute phase proteins. J Dairy Sci. 94: 2285-301.
- 12. Halliday, S. *et al.* (2005) Expression of PrPC on cellular components of sheep blood. <u>J</u> Gen Virol. 86: 1571-9.
- 13. Blunt, L. *et al.* (2015) Phenotypic characterization of bovine memory cells responding to mycobacteria in IFNy enzyme linked immunospot assays. <u>Vaccine</u>. 33 (51): 7276-82.
- 14. Hussen, J. *et al.* (2016) Neutrophil degranulation differentially modulates phenotype and function of bovine monocyte subsets. <u>Innate Immun. 22 (2): 124-37.</u>
- 15. Chen, X. *et al.* (2016) Bovine P-selectin mediates leukocyte adhesion and is highly polymorphic in dairy breeds. <u>Res Vet Sci. 108: 85-92.</u>
- 16. Jimbo, S. *et al.* (2017) Effect of *Mycoplasma bovis* on bovine neutrophils. <u>Vet Immunol Immunopathol. 188: 27-33.</u>
- 17. Hamilton, C.A. *et al.* (2017) Frequency and phenotype of natural killer cells and natural killer cell subsets in bovine lymphoid compartments and blood. <u>Immunology. 151</u> (1): 89-97.
- 18. Souza, F.N. *et al.* (2020) Immune response in nonspecific mastitis: What can it tell us? <u>J Dairy Sci. 103 (6): 5376-86.</u>
- 19. Fiorenza, M.F. *et al.* (2021) Neutrophils recognize and amplify IFNT signals derived from day 7 bovine embryo for stimulation of ISGs expression *in vitro*.: A possible implication for the early maternal recognition of pregnancy. <u>Biochem Biophys Res Commun. 553: 37-43.</u>

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: <a href="https://www.bio-rad-antibodies.com/SDS/MCA1649G">https://www.bio-rad-antibodies.com/SDS/MCA1649G</a> 10040
Regulatory	For research purposes only

## Related Products

## **Recommended Secondary Antibodies**

Rabbit Anti Mouse IgG (STAR12...) RPE

Goat Anti Mouse IgG IgA IgM (STAR87...) <u>HRP</u>

Goat Anti Mouse IgG (STAR76...) RPE

Goat Anti Mouse IgG (STAR70...) FITC
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

Goat Anti Mouse IgG (H/L) (STAR117...) Alk. Phos., DyLight®488, DyLight®550,

DyLight®650, DyLight®680, DyLight®800,

FITC, HRP

# **Recommended Negative Controls**

#### MOUSE IgG1 NEGATIVE CONTROL (MCA928)

North & South Tel: +1 800 265 7376

America Fax: +1 919 878 3751

Worldwide

Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Europe

Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50

Email: antibody\_sales\_us@bio-rad.com

Email: antibody\_sales\_uk@bio-rad.com

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 'M383574:210513'

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