

Datasheet: MCA2042GA

BATCH NUMBER 163140

Description:	MOUSE ANTI BOVINE CD63
Specificity:	CD63
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	CC25
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	▪			1/10 - 1/25
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting			▪	

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	Bovine
Product Form	Purified IgG - liquid
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)
Carrier Free	Yes

Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Bovine PBMC
External Database Links	<p>UniProt: Q9XSK2 Related reagents</p> <p>Entrez Gene: 404156 CD63 Related reagents</p>
Specificity	<p>Mouse anti Bovine CD63 antibody, clone CC25 recognizes the bovine homologue of human CD63, a 237 amino acid multipass transmembrane glycoprotein and member of the tetraspanin TM4SF protein family with a predicted molecular weight of ~26 kDa. CD63 is also known as lysosome associated membrane glycoprotein 3 or LAMP-3.</p> <p>CD63 along with other TM4SF members including CD9, CD61 and CD151 can form specific interactions with phosphoinositide 4-kinase, suggesting a role for CD63 in the recruitment of phosphoinositide 4-kinase to specific membrane sites (Yauch and Hemler 2000). CD63 is expressed on the cell surface of platelets and basophils, along with activated macrophages, monocytes and granulocytes.</p> <p>Mouse anti Bovine CD63, clone CC25 acts as a specific marker for bovine lysosomes and has been used for the identification and quantitation of phagosome-lysosome fusion in models of bacterial insult (Souza et al. 2013).</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells in 100ul.
References	<ol style="list-style-type: none"> 1. Brooke, G.P. <i>et al.</i> (1999) Molecular cloning of cattle CD63 and evidence for high level expression on subpopulations of dendritic cells. Immunogenetics. 49 (9): 812-4. 2. Colino, J. and Snapper, C.M. (2006) Exosomes from bone marrow dendritic cells pulsed with diphtheria toxoid preferentially induce type 1 antigen-specific IgG responses in naive recipients in the absence of free antigen. J Immunol. 177: 3757-62. 3. Souza, C.D. <i>et al.</i> (2007) Role of the mitogen-activated protein kinase pathway in the differential response of bovine monocytes to <i>Mycobacterium avium</i> subsp. paratuberculosis and <i>Mycobacterium avium</i> subsp. avium. Microbes Infect. 9: 1545-52. 4. Souza, C. <i>et al.</i> (2013) Mannosylated lipoarabinomannans from <i>Mycobacterium avium</i> subsp. Paratuberculosis alters the inflammatory response by bovine macrophages and suppresses killing of mycobacterium avium subsp. Avium organisms. PLoS One 8: e75924. 5. Wolf, T. <i>et al.</i> (2015) The Intestinal Transport of Bovine Milk Exosomes Is Mediated by Endocytosis in Human Colon Carcinoma Caco-2 Cells and Rat Small Intestinal IEC-6 Cells. J Nutr. 145 (10): 2201-6. 6. Weiss, D.J. <i>et al.</i> (2008) Bovine monocyte TLR2 receptors differentially regulate the intracellular fate of <i>Mycobacterium avium</i> subsp. paratuberculosis and <i>Mycobacterium avium</i> subsp. avium. J Leukoc Biol. 83: 48-55. 7. Kusuma, R.J. <i>et al.</i> (2016) Human vascular endothelial cells transport foreign

- exosomes from cow's milk by endocytosis. [Am J Physiol Cell Physiol. 310 \(10\): C800-7.](#)
8. Carretta MD *et al.* (2016) Butyric acid stimulates bovine neutrophil functions and potentiates the effect of platelet activating factor. [Vet Immunol Immunopathol. 176: 18-27.](#)
9. Mobley, C.B. *et al.* (2017) Whey protein-derived exosomes increase protein synthesis and hypertrophy in C₂-C₁₂ myotubes. [J Dairy Sci. 100 \(1\): 48-64.](#)
10. Gillan, V. *et al.* (2019) Characterisation of infection associated microRNA and protein cargo in extracellular vesicles of *Theileria annulata*. infected leukocytes. [Cell Microbiol. 21 \(1\): e12969.](#)
11. 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. [Biochem Biophys Res Commun. 553: 37-43.](#)

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: <https://www.bio-rad-antibodies.com/SDS/MCA2042GA>
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Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

- Rabbit Anti Mouse IgG (STAR12...) [RPE](#)
- Goat Anti Mouse IgG IgA IgM (STAR87...) [HRP](#)
- Goat Anti Mouse IgG (STAR76...) [RPE](#)
- Rabbit Anti Mouse IgG (STAR13...) [HRP](#)
- Goat Anti Mouse IgG (STAR70...) [FITC](#)
- 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](#)
- Goat Anti Mouse IgG (STAR77...) [HRP](#)
- Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://www.bio-rad-antibodies.com/datasheets)

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