Datasheet: MCA2042GA

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	**UniProt:** Q9XSK2 Related reagents **Entrez Gene:** 404156 CD63 Related reagents
Specificity	**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. 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. Mouse anti Bovine CD63, clone CC25 acts as a specific marker for bovine lysozomes and has been used for the identification and quantitation of phagosome-lysozome fusion in models of bacterial insult (Souza *et al.* 2013).
Flow Cytometry	Use 10µl of the suggested working dilution to label 10^6 cells in 100µl
References	1. Brooke, G.P. *et al.* (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. *et al.* (2007) Role of the mitogen-activated protein kinase pathway in the differential response of bovine monocytes to *Mycobacterium avium* subsp. paratuberculosis and *Mycobacterium avium* subsp. *avium*. Microbes Infect. 9: 1545-52. 4. Weiss, D.J. *et al.* (2008) Bovine monocyte TLR2 receptors differentially regulate the intracellular fate of *Mycobacterium avium* subsp. paratuberculosis and *Mycobacterium avium* subsp. avium. J Leukoc Biol. 83: 48-55. 5. Souza, C. *et al.* (2013) Mannosylated lipoarabinomannans from *Mycobacterium avium* subsp. Paratuberculosis alters the inflammatory response by bovine macrophages and suppresses killing of mycobacterium avium subsp. Avium organisms. PLoS One 8: e75924. 6. Wolf, T. *et al.* (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. 7. 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.
8. Kusuma, R.J. *et al.* (2016) Human vascular endothelial cells transport foreign exosomes from cow's milk by endocytosis. Am J Physiol Cell Physiol. 310 (10): C800-7.
9. Mobley, C.B. *et al.* (2017) Whey protein-derived exosomes increase protein synthesis and hypertrophy in C_2-C_{12} 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 10040
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...)	HRP
Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	Alk. Phos., HRP
Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC, HRP
Rabbit Anti Mouse IgG (STAR13...)	HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos., DyLight®488, DyLight®550, DyLight®650, DyLight®680, DyLight®800, FITC, HRP
Goat Anti Mouse IgG (STAR70...)	FITC

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

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