

Datasheet: MCA837A647

BATCH NUMBER 150610

Description:	MOUSE ANTI BOVINE CD8:Alexa Fluor® 647
Specificity:	CD8
Format:	ALEXA FLUOR® 647
Product Type:	Monoclonal Antibody
Clone:	CC63
Isotype:	IgG2a
Quantity:	100 TESTS/1ml

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 - 1/10

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 Reactivity

Reacts with: Sheep, 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 Alexa Fluor® 647 - liquid

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
Alexa Fluor®647	650	665

Preparation

Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant

Buffer Solution

Phosphate buffered saline

Preservative	0.09% Sodium Azide
Stabilisers	1% Bovine Serum Albumin
Approx. Protein Concentrations	IgG concentration 0.05 mg/ml
External Database Links	<p>UniProt: P31783 Related reagents</p> <p>Entrez Gene: 281060 CD8A Related reagents</p>
RRID	AB_2275821
Fusion Partners	Spleen cells from an immunised mouse were fused with cells of the mouse NS1 myeloma cell line.
Specificity	Mouse anti Bovine CD8 antibody, clone CC63 reacts with the bovine CD8 antigen expressed by a subset of T lymphocytes. The antibody precipitates molecules of ~34 kDa and ~38 kDa under reducing conditions. Clone CC63 has been reported as being suitable for use on formalin dichromate (FD5) fixed paraffin embedded tissue with amplification and antigen retrieval techniques (Gutierrez et al. 1999).
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells in 100ul.
References	<ol style="list-style-type: none"> MacHugh, N.D. & Sopp P (1991) Individual antigens of cattle. Bovine CD8 (BoCD8). Vet Immunol Immunopathol. 27 (1-3): 65-9. Gutierrez, M. et al. (1999) The detection of CD2+, CD4+, CD8+, and WC1+ T lymphocytes, B cells and macrophages in fixed and paraffin embedded bovine tissue using a range of antigen recovery and signal amplification techniques. Vet Immunol Immunopathol. 71 (3-4): 321-34. Twizere, J.C. et al. (2000) Discordance between bovine leukemia virus tax immortalization <i>in vitro</i> and oncogenicity <i>in vivo</i>. J Virol. 74 (21): 9895-902. Winkler, M.T. et al. (1999) Bovine herpesvirus 1 can infect CD4(+) T lymphocytes and induce programmed cell death during acute infection of cattle. J Virol. 73 (10): 8657-68. Winkler, M.T. et al. (2000) Persistence and reactivation of bovine herpesvirus 1 in the tonsils of latently infected calves. J Virol. 74 (11): 5337-46. Sidders, B. et al. (2008) Screening of highly expressed mycobacterial genes identifies Rv3615c as a useful differential diagnostic antigen for the <i>Mycobacterium tuberculosis</i> complex. Infect Immun. 76: 3932-9. Sanchez, J. et al. (2011) Microscopical and immunological features of tuberculoid granulomata and cavitory pulmonary tuberculosis in naturally infected goats. J Comp Pathol. 145 (2-3): 107-17. La Manna, M.P. et al. (2011) Expansion of intracellular IFN-γ positive lymphocytes during <i>Mycoplasma agalactiae</i> infection in sheep. Res Vet Sci. 91 (3): e64-7. Fulton, B.E. Jr. et al. (2006) Dissemination of bovine leukemia virus-infected cells from a newly infected sheep lymph node. J Virol. 80: 7873-84.

10. Harris, J. *et al.* (2002) Expression of caveolin by bovine lymphocytes and antigen-presenting cells. [Immunology. 105: 190-5.](#)
11. Liebana, E. *et al.* (2007) Distribution and activation of T-lymphocyte subsets in tuberculous bovine lymph-node granulomas. [Vet Pathol. 44: 366-72.](#)
12. Lynch, E.M. *et al.* (2010) Effect of abrupt weaning at housing on leukocyte distribution, functional activity of neutrophils, and acute phase protein response of beef calves. [BMC Vet Res. 6: 39.](#)
13. Lacroux, C. *et al.* (2012) Prionemia and leukocyte-platelet-associated infectivity in sheep transmissible spongiform encephalopathy models. [J Virol. 86 \(4\): 2056-66.](#)
14. Coad, M. *et al.* (2010) Repeat tuberculin skin testing leads to desensitisation in naturally infected tuberculous cattle which is associated with elevated interleukin-10 and decreased interleukin-1 beta responses. [Vet Res. 41: 14.](#)
15. Toman, M. *et al.* (2003) Immunological characteristics of cattle with *Mycobacterium avium* subsp. *paratuberculosis* infection [Vet. Med. – Czech, 48, 2003: 147–54.](#)
16. Constantinoiu, C.C. *et al.* (2010) Local immune response against larvae of *Rhipicephalus (Boophilus) microplus* in *Bos taurus indicus* and *Bos taurus taurus* cattle. [Int J Parasitol. 40: 865-75.](#)
17. Brodzki, P. *et al.* (2014) Phenotyping of leukocytes and granulocyte and monocyte phagocytic activity in the peripheral blood and uterus of cows with endometritis. [Theriogenology. 82 \(3\): 403-10.](#)
18. Romero-Palomo F *et al.* (2015) Immunopathologic Changes in the Thymus of Calves Pre-infected with BVDV and Challenged with BHV-1. [Transbound Emerg Dis. Aug 25. \[Epub ahead of print\]](#)
19. Stenfeldt, C. *et al.* (2015) Pathogenesis of Primary Foot-and-Mouth Disease Virus Infection in the Nasopharynx of Vaccinated and Non-Vaccinated Cattle. [PLoS One. 10 \(11\): e0143666.](#)
20. Leite FL *et al.* (2015) ZAP-70, CTLA-4 and proximal T cell receptor signaling in cows infected with *Mycobacterium avium* subsp. *paratuberculosis*. [Vet Immunol Immunopathol. 167 \(1-2\): 15-21.](#)
21. Silva, A.P. *et al.* (2015) Encapsulated *Brucella ovis* Lacking a Putative ATP-Binding Cassette Transporter (ΔabcBA) Protects against Wild Type *Brucella ovis* in Rams. [PLoS One. 10 \(8\): e0136865.](#)
22. Schmidt, N. *et al.* (2018) Decreased STEC shedding by cattle following passive and active vaccination based on recombinant *Escherichia coli* Shiga toxoids. [Vet Res. 49 \(1\): 28.](#)
23. Benedictus, L. *et al.* (2019) Immunization of young heifers with staphylococcal immune evasion proteins before natural exposure to *Staphylococcus aureus* induces a humoral immune response in serum and milk. [BMC Vet Res. 15 \(1\): 15.](#)
24. Pérez-caballero, R. *et al.* (2018) Comparative dynamics of peritoneal cell immunophenotypes in sheep during the early and late stages of the infection with *Fasciola hepatica* by flow cytometric analysis. [Parasit Vectors. 11 \(1\): 640.](#)
25. Bloomer, S.A. *et al.* (2019) Aging results in accumulation of M1 and M2 hepatic macrophages and a differential response to gadolinium chloride. [Histochem Cell Biol. Nov 06 \[Epub ahead of print\].](#)
26. Foulon, E. & Foucras, G. (2008) Two populations of ovine bone marrow-derived dendritic cells can be generated with recombinant GM-CSF and separated on CD11b expression. [J Immunol Methods. 339 \(1\): 1-10.](#)

27. Brodzki, P. *et al.* (2019) Selected leukocyte subpopulations in peripheral blood and uterine washings in cows before and after intrauterine administration of cefapirin and methisoprinol. [Anim Sci J. Nov 06 \[Epub ahead of print\]](#).
28. Gondaira, S. *et al.* (2020) Immunosuppression in Cows following Intramammary Infusion of *Mycoplasma bovis*. [Infect Immun. 88 \(3\)Feb 20 \[Epub ahead of print\]](#).
29. Nakajima, N. *et al.* (2019) Effects of direct exposure to cold weather under grazing in winter on the physiological, immunological, and behavioral conditions of Japanese Black beef cattle in central Japan. [Anim Sci J. 90 \(8\): 1033-41](#).

Storage

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted. This product is photosensitive and should be protected from light.

Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Guarantee

12 months from date of despatch

Acknowledgements

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Health And Safety Information

Material Safety Datasheet documentation #10041 available at: <https://www.bio-rad-antibodies.com/SDS/MCA837A647>
10041

Regulatory

For research purposes only

Related Products

Recommended Negative Controls

[MOUSE IgG2a NEGATIVE CONTROL:Alexa Fluor® 647 \(MCA929A647\)](#)

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'M369033:200529'

Printed on 05 Apr 2024
