

Datasheet: MCA2430GA

### **BATCH NUMBER 1708**

Description:	MOUSE ANTI BOVINE CD25
Specificity:	CD25
Other names:	IL-2R ALPHA CHAIN
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	IL-A111
Isotype:	lgG1
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 <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 Reactivity	Reacts with: Sheep <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 A 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
External Database Links	UniProt: P12342 Related reagents
	Entrez Gene:  281861 IL2RA Related reagents
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the X63.Ag8.653 myeloma cell line.
Specificity	<b>Mouse anti Bovine CD25 antibody, clone IL-A111</b> recognizes the bovine CD25 cell surface antigen, a ~55 kDa glycoprotein also known as Interleukin-2 receptor alpha chain. Bovine CD25 is expressed by activated T cells.
	Mouse anti Bovine CD25 antibody, clone IL-A111 is reported to block the IL-2 driven proliferation of Con A-induced blast cells/ bovine lymphocytes (Naessens et al. 1992).
Flow Cytometry	Use 10ul of the suggested working dilution to label 1x10 <sup>6</sup> cells in 100ul
References	1. Naessens, J. <i>et al.</i> (1992) Selection of BoCD25 monoclonal antibodies by screening mouse L cells transfected with the bovine p55-interleukin-2 (IL-2) receptor gene. <a href="https://linear.com/lmmunology.76">lmmunology. 76</a> (2): 305-9.
	2. Howard, C.J. & Naessens, J. (1993) Summary of workshop findings for cattle (tables 1 and 2). Vet Immunol Immunopathol. 39 (1-3): 25-47.
	3. Howard, C.J. <i>et al.</i> (1997) Identification of two distinct populations of dendritic cells in afferent lymph that vary in their ability to stimulate T cells. <u>J Immunol</u> . 159 (11): 5372-82.
	4. Naessens, J. <i>et al.</i> (1993) Cross-reactivity of workshop antibodies with cells from
	domestic and wild ruminants. Vet Immunol Immunopathol. 39 (1-3): 283-90.
	5. Evans, C.W. <i>et al.</i> (1994) Antigen recognition and activation of ovine gamma delta T
	cells. Immunology. 82 (2): 229-37.
	6. Campbell, J.D. <i>et al.</i> (1998) A novel cell surface proliferation-associated marker expressed on T cells and up-regulated on germinal center B cells. <u>J Leukoc Biol. 63 (5):</u>
	567-74.
	7. Connelley, T. <i>et al.</i> (2011) NKp46 defines ovine cells that have characteristics
	corresponding to NK cells. Vet Res. 42: 37.
	8. Menge, C. et al. (2004) Phenotypic and functional characterization of intraepithelial

lymphocytes in a bovine ligated intestinal loop model of enterohaemorrhagic Escherichia

- coli infection. J Med Microbiol. 53: 573-9.
- 9. Rhodes, S.G. *et al.* (1999) Differential cytokine responses of CD4+ and CD8+ T cells in response to bovine viral diarrhoea virus in cattle. J Gen Virol. 80: 1673-9.
- 10. Piper, E.K. *et al.* (2009) Immunological profiles of *Bos taurus* and *Bos indicus* cattle infested with the cattle tick, *Rhipicephalus* (*Boophilus*) *microplus*. Clin Vaccine Immunol. 16: 1074-86.
- 11. Woolums, A.R. *et al.* (2013) Effect of calf age and administration route of initial multivalent modified-live virus vaccine on humoral and cell-mediated immune responses following subsequent administration of a booster vaccination at weaning in beef calves. Am J Vet Res. 74: 343-54.
- 12. Mcinnes, E. *et al.* (1999) Phenotypic analysis of local cellular responses in calves infected with bovine respiratory syncytial virus. <u>Immunology.</u> 96 (3): 396-403.
- 13. Maślanka, T. *et al.* (2012) The presence of CD25 on bovine WC1+ γδ T cells is positively correlated with their production of IL-10 and TGF-β, but not IFN-γ. <u>Pol J Vet Sci.</u> 15: 11-20.
- 14. Menge, C. *et al.* (2003) Verotoxin 1 from *Escherichia coli* affects Gb3/CD77+ bovine lymphocytes independent of interleukin-2, tumor necrosis factor-alpha, and interferonalpha. Exp Biol Med (Maywood). 228: 377-86.
- 15. Menge, C. *et al.* (1999) Shiga toxin 1 from *Escherichia coli* blocks activation and proliferation of bovine lymphocyte subpopulations *in vitro*. <u>Infect Immun. 67: 2209-17.</u>
- 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. Maślanska, T. and Jaroszewski, J.J. (2013) In vitro effects of meloxicam on the number, Foxp3 expression, production of selected cytokines, and apoptosis of bovine CD25+CD4+ and CD25-CD4+ cells. J Vet Sci. 14 (2): 125-34.
- 18. 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.
- 19. Zoldan, K. *et al.* (2014) Increase of CD25 expression on bovine neutrophils correlates with disease severity in post-partum and early lactating dairy cows. <u>Dev Comp Immunol.</u> 47 (2): 254-63.
- 20. Kang, H.J. *et al.* (2016) Effects of Ambient Temperature on Growth Performance, Blood Metabolites, and Immune Cell Populations in Korean Cattle Steers. <u>Asian-Australas</u> J Anim Sci. 29 (3): 436-43.
- 21. Schmidt, N. *et al.* (2018) Decreased STEC shedding by cattle following passive and active vaccination based on recombinant *Escherichia coli* Shiga toxoids. <u>Vet Res. 49 (1): 28.</u>
- 22. Higgins, J.L. *et al.* (2018) Cell mediated immune response in goats after experimental challenge with the virulent *Brucella melitensis* strain 16M and the reduced virulence strain Rev. 1. <u>Vet Immunol Immunopathol. 202: 74-84.</u>
- 23. 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. <u>Anim Sci J. Nov 06 [Epub ahead of print].</u>

Storage

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

Storage in frost-free freezers is not recommended.

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.

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/MCA2430GA">https://www.bio-rad-antibodies.com/SDS/MCA2430GA</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...) HRP Goat Anti Mouse IgG (STAR76...) **RPE** 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

Rabbit Anti Mouse IgG (STAR13...) **HRP** 

#### **Recommended Negative Controls**

### MOUSE IgG1 NEGATIVE CONTROL (MCA928)

America Fax: +1 919 878 3751

North & South Tel: +1 800 265 7376 Worldwide

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

Tel: +44 (0)1865 852 700

Europe Fax: +44 (0)1865 852 739

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

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

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 'M366894:200529'

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