

# Datasheet: AAI21F BATCH NUMBER 164715

Description:	SHEEP ANTI BOVINE IgG1:FITC
Specificity:	lgG1
Format:	FITC
<b>Product Type:</b>	Polyclonal Antibody
Isotype:	Polyclonal IgG
Quantity:	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="https://www.bio-rad-antibodies.com/protocols">www.bio-rad-antibodies.com/protocols</a>.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	•			1/20 - 1/100
Immunohistology - Frozen	•			1/20 - 1/100
Immunohistology - Paraffin			•	

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 the appropriate negative/positive controls.

Target Species	Bovine			
Product Form	Purified IgG fracti	on conjugated to Fluoresc	ein Isothiocyanate Iso	omer 1 (FITC) - liquid
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)	
	FITC	490	525	

**Antiserum Preparation** Antisera to bovine IgG1 were raised by repeated immunisation of sheep with highly purified antigen. Purified IgG prepared by affinity chromatography.

Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml

Purified bovine IgG1.
AB_323070
Sheep anti Bovine IgG1 polyclonal antibody recognizes bovine IgG1.
No cross-reactivity with other bovine immunoglobulin classes is seen in
immunoelectrophoresis.This product may cross-react with IgG1 from other species.
1. Vordermeier, H.M. et al. (2003) Improved immunogenicity of DNA vaccination with mycobacterial HSP65 against bovine tuberculosis by protein boosting. Vet Microbiol. 93: 349-59.  2. van Diemen, P.M. et al. (2007) Subunit vaccines based on intimin and Efa-1 polypeptides induce humoral immunity in cattle but do not protect against intestinal colonisation by enterohaemorrhagic Escherichia coli O157:H7 or O26:H Vet Immunol Immunopathol. 116: 47-58.  3. von Holtum, C. et al. (2008) Development and evaluation of a recombinant antigen-based ELISA for serodiagnosis of cattle lungworm. Vet Parasitol. 151: 218-26.  4. Patarroyo, J.H. et al. (2009) Immune response of bovines stimulated by synthetic vaccine SBm7462 against Rhipicephalus (Boophilus) microplus. Vet Parasitol. 166: 333-9.  5. Almería, S. et al. (2009) Specific anti-Neospora caninum IgG1 and IgG2 antibody responses during gestation in naturally infected cattle and their relationship with gamma interferon production. Vet Immunol Immunopathol. 130: 35-42.  6. Fiedor, C. et al. (2009) Evaluation of a milk ELISA for the serodiagnosis of Dictyocaulus viviparus in dairy cows. Vet Parasitol. 166: 255-61.  7. Makepeace, B.L. et al. (2009) Immunisation with a multivalent, subunit vaccine reduced patent infection in a natural bovine model of Onchocerciasis during intense field exposure. PLoS Negl. Trop. Dis. 3: e544.  8. Riffault, S. et al. (2010) A new subunit vaccine based on nucleoprotein nanoparticles confers partial clinical and virological protection in calves against bovine respiratory syncytial virus. Vaccine, 28: 3722-34.  9. Ploegaert, T.C. et al. (2010) Genetic variation of natural antibodies in milk of Dutch Holstein-Friesian cows. J Dairy Sci. 93: 5467-73.  10. Van Neerven, R.J. et al. (2010) Milk derived antigen-specific antibodies, methods of preparation and uses thereof. US Patent application no: US20100129377 A1  11. Colwell, D.D. et al. (2010) Dicrocoelium dendriticum in cattle from Cypress Hills, Canada: Humoral response and preliminary evaluation
cattle. <u>Vaccine. 30: 6845-50.</u> 14. Assad, A. <i>et al.</i> (2012) Immunophenotyping and characterization of BNP colostra

<u>25-34.</u>

revealed pathogenic alloantibodies of IgG1 subclass with specifity to platelets,

granulocytes and monocytes of all maturation stages. Vet Immunol Immunopathol. 147:

- 15. Vázquez, L. *et al.* (2012) Antigen-specific antibody isotypes, lymphocyte subsets and cytokine profiles in cattle naturally infested by *Hypoderma sp.* (Diptera: Oestridae). <u>Vet</u> Parasitol. 184: 230-7.
- 16. Van Meulder, F. *et al.* (2013) Granule exocytosis of granulysin and granzyme B as a potential key mechanism in vaccine-induced immunity in cattle against the nematode *Ostertagia ostertagi.* Infect Immun. 81: 1798-809.
- 17. Mansilla, F.C. *et al.* (2013) Dose-dependent immunogenicity of a soluble *Neospora caninum* tachyzoite-extract vaccine formulated with a soy lecithin/β-glucan adjuvant in cattle. Vet Parasitol. pii: S0304-4017(13)00252-5.
- 18. Panadero, R. *et al.* (2013) Effect of reinfestations on systemic immune responses in cattle naturally infested by *Hypoderma sp.* (Diptera: Oestridae). <u>Vet Parasitol. 193:</u> 238-44.
- 19. Grit, G.H. *et al.* (2014) Evaluation of cellular and humoral systemic immune response against *Giardia duodenalis* infection in cattle. Vet Parasitol. 202: 145-55.
- 20. Maree, F.F. *et al.* (2015) Intra-serotype SAT2 chimeric foot-and-mouth disease vaccine protects cattle against FMDV challenge. <u>Vaccine</u>. 33 (25): 2909-16.
- 21. Trotta, M. *et al.* (2015) Simultaneous immunization of cattle with foot-and-mouth disease (FMD) and live anthrax vaccines do not interfere with FMD booster responses Trials in Vaccinology. 4: 38-42.
- 22. Bautista-Garfias, C.R. *et al.* (2015) Co-immunization of cattle with a vaccine against babesiosis and *Lactobacillus casei* increases specific IgG1 levels to *Babesia bovis* and *B. bigemina*. Parasitol Int. 64 (5): 319-23.
- 23. González-Hernández A *et al.* (2016) Host protective ASP-based vaccine against the parasitic nematode Ostertagia ostertagi triggers NK cell activation and mixed IgG1-IgG2 response. Sci Rep. 6: 29496.
- 24. Rybarczyk, J. *et al.* (2017) Effects of lactoferrin treatment on Escherichia coli O157:H7 rectal colonization in cattle. Vet Microbiol. 202: 38-46.
- 25. Scott, K.A. *et al.* (2017) Evaluation of immune responses of stabilised SAT2 antigens of foot-and-mouth disease in cattle. Vaccine. 35 (40): 5426-33.
- 26. Rainard, P. *et al.* (2017) Cellular and humoral immune response to recombinant *Escherichia coli*. OmpA in cows. PLoS One. 12 (10): e0187369.
- 27. Sheng, Z.A. *et al.* (2019) Th2-related cytokines are associated with *Fasciola gigantica* infection and evasion in the natural host, swamp buffalo. <u>Vet Parasitol. 268: 73-80.</u>
- 28. Jiménez-Pelayo, L. *et al.* (2019) Early *Neospora caninum* infection dynamics in cattle after inoculation at mid-gestation with high (Nc-Spain7)- or low (Nc-Spain1H)-virulence isolates. Vet Res. 50 (1): 72.
- 29. Hine, B.C. *et al.* (2019) Immune competence traits assessed during the stress of weaning are heritable and favorably genetically correlated with temperament traits in Angus cattle. <u>J Anim Sci. 97 (10): 4053-4065.</u>
- 30. Springer, A. *et al.* (2022) Immunization Trials with Recombinant Major Sperm Protein of the Bovine Lungworm *Dictyocaulus viviparus.*. Pathogens 2022, 11, 55.

#### **Storage**

Store at +4°C. DO NOT FREEZE.

This product should be stored undiluted. This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.

12 months from date of despatch
Material Safety Datasheet documentation #10040 available at: <a href="https://www.bio-rad-antibodies.com/SDS/AAI21F">https://www.bio-rad-antibodies.com/SDS/AAI21F</a> 10040
For research purposes only

 North & South
 Tel: +1 800 265 7376
 Worldwide
 Tel: +44 (0)1865 852 700
 Europe
 Tel: +49 (0) 89 8090 95 21

 America
 Fax: +1 919 878 3751
 Fax: +44 (0)1865 852 739
 Fax: +49 (0) 89 8090 95 50

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets 'M363602:200528'

### Printed on 01 Mar 2024

© 2024 Bio-Rad Laboratories Inc | Legal | Imprint