

## Monoclonal Antibody to CD21 - FITC

<b>Alternate names:</b>	C3DR, C3d receptor, CR2, Complement C3d receptor, Complement receptor type 2, Dendritic Cell Marker, EBV Receptor, Epstein-Barr virus receptor
<b>Catalog No.:</b>	AM05516FC-N
<b>Quantity:</b>	0.1 mg
<b>Concentration:</b>	0.1 mg/ml
<b>Background:</b>	CD21 also known as complement receptor 2 (CR2), C3d receptor or EBV receptor is a 140 kDa protein. CD21 is a glycosylated type I transmembrane protein consisting of an extracellular face of a series of 15 or 16 CCP domains. CD21 is the receptor for complement components C3d and iC3b as well as the Epstein-Barr virus (EBV) glycoprotein gp350/220. The soluble CD21 (sCD21) was shown to efficiently trigger CD23 signalling pathways in human monocytes. By inducing release of proinflammatory cytokines and upregulating expression of molecules involved in antigen presentation, sCD21 modulates critical monocyte functions that may be relevant to allergic and inflammatory disorders.
<b>Uniprot ID:</b>	<a href="#">Q8HY44</a>
<b>NCBI:</b>	<a href="#">9913</a>
<b>Host / Isotype:</b>	Mouse / IgG1
<b>Clone:</b>	CC21
<b>Format:</b>	<b>State:</b> Liquid purified IgG fraction <b>Purification:</b> Affinity Chromatography on Protein G <b>Buffer System:</b> PBS <b>Preservatives:</b> 0.09% Sodium Azide <b>Stabilizers:</b> 1% BSA <b>Label:</b> FITC – Fluorescein Isothiocyanate Isomer 1
<b>Applications:</b>	<b>Flow Cytometry:</b> Use 10 µl of Neat-1/10 diluted antibody to label 10 <sup>6</sup> cells in 100 µl. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
<b>Specificity:</b>	This antibody recognises the CD21 cell surface antigen. <b>Species:</b> Bovine, Goat, Sheep. Other species not tested.
<b>Storage:</b>	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. This product is photosensitive and should be protected from light. Avoid repeated freezing and thawing. Shelf life: one year from despatch.
<b>General Readings:</b>	1. Howard CJ, Morrison WI, Bensaïd A, Davis W, Eskra L, Gerdes J, et al. Summary of workshop findings for leukocyte antigens of cattle. Vet Immunol Immunopathol. 1991 Jan;27(1-3):21-7. PubMed PMID: 1902342.

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2. Naessens J, Newson J, McHugh N, Howard CJ, Parsons K, Jones B. Characterization of a bovine leucocyte differentiation antigen of 145,000 MW restricted to B lymphocytes. *Immunology*. 1990 Apr;69(4):525-30. PubMed PMID: 2185984.
3. Sopp, P. & Howard, C.J. (2001) IFN gamma and IL-4 production by CD4, CD8, and WC1 gamma-delta TCR+ cells from cattle lymph nodes and blood. *Vet. Immunol. Immunopathol.* 81: 85-96.
4. Lwin S, Inoshima Y, Atoji Y, Ueno H, Ishiguro N. Immune cell types involved in early uptake and transport of recombinant mouse prion protein in Peyer's patches of calves. *Cell Tissue Res.* 2009 Dec;338(3):343-54. doi: 10.1007/s00441-009-0879-6. Epub 2009 Oct 16. PubMed PMID: 19834742.
5. Breugelmans S, Van den Broeck W, Demeyere K, Meyer E, Simoens P. Immunoassay of lymphocyte subsets in ovine palatine tonsils. *Acta Histochem.* 2011 Jul;113(4):416-22. doi: 10.1016/j.acthis.2010.03.001. Epub 2010 May 23. PubMed PMID: 20546866.
6. Halliday S, Houston F, Hunter N. Expression of PrPC on cellular components of sheep blood. *J Gen Virol.* 2005 May;86(Pt 5):1571-9. PubMed PMID: 15831971.
7. Brackenbury LS, Carr BV, Stamatakis Z, Prentice H, Lefevre EA, Howard CJ, et al. Identification of a cell population that produces alpha/beta interferon in vitro and in vivo in response to noncytopathic bovine viral diarrhoea virus. *J Virol.* 2005 Jun;79(12):7738-44. PubMed PMID: 15919926.
8. Breugelmans S, De Spiegelaere W, Casteleyn C, Simoens P, Van den Broeck W. Differences between the ovine tonsils based on an immunohistochemical quantification of the lymphocyte subpopulations. *Comp Immunol Microbiol Infect Dis.* 2011 May;34(3):217-25. doi: 10.1016/j.cimid.2010.11.005. Epub 2010 Dec 4. PubMed PMID: 21130496.
9. Richt JA, Kasinathan P, Hamir AN, Castilla J, Sathiyaseelan T, Vargas F, et al. Production of cattle lacking prion protein. *Nat Biotechnol.* 2007 Jan;25(1):132-8. Epub 2006 Dec 31. PubMed PMID: 17195841.
10. Brujeni GN, Poorbazargani TT, Nadin-Davis S, Toloos M, Barjesteh N. Bovine immunodeficiency virus and bovine leukemia virus and their mixed infection in Iranian Holstein cattle. *J Infect Dev Ctries.* 2010 Oct 4;4(9):576-9. PubMed PMID: 21045371.
11. Kiku Y, Ozawa T, Kushibiki S, Sudo M, Kitazaki K, Abe N, et al. Decrease in bovine CD14 positive cells in colostrum is associated with the incidence of mastitis after calving. *Vet Res Commun.* 2010 Feb;34(2):197-203. doi: 10.1007/s11259-009-9339-8. PubMed PMID: 20077004.
12. Pilla, R. et al. (2012) Long-term study of MRSA ST1, t127 mastitis in a dairy cow. *Vet Rec.* Mar 1. [Epub ahead of print]
13. Chattha KS, Hodgins DC, DeLay J, Antoine N, Shewen PE. Immunohistochemical investigation of cells expressing CD21, membrane IgM, CD32 and a follicular dendritic cell marker in the lymphoid tissues of neonatal calves. *Vet Immunol Immunopathol.* 2010 Oct 15;137(3-4):284-90. doi: 10.1016/j.vetimm.2010.05.004. Epub 2010 Jun 16. PubMed PMID: 20557949.
14. Weiss DJ, Evanson OA, Souza CD. Mucosal immune response in cattle with subclinical Johne's disease. *Vet Pathol.* 2006 Mar;43(2):127-35. PubMed PMID: 16537930.

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