

Monoclonal Antibody to CD169 / SIGLEC1 - FITC

Alternate names:	Sialic acid-binding Ig-like lectin 1, Sialoadhesin, Siglec-1
Catalog No.:	AM05902FC-N
Quantity:	0.1 mg
Concentration:	0.1 mg/ml
Background:	Two families of mammalian lectin like adhesion molecules have been shown to bind glycoconjugate ligands in a sialic acid dependent manner: the selectins and the sialoadhesins. The sialoadhesin family has 4 members: CD22, a B cell specific marker; myelin associated glycoprotein (MAG), which is expressed on oligodendrocytes and Schwann cells; CD33, a myeloid differentiation antigen; and sialoadhesin, which is expressed only by a subpopulation of tissue macrophages. Involved in cell-cell interactions, sialoadhesin is structurally related to the 3 other listed members of the sialoadhesin family. CD169 is a sialic acid binding site of sialoadhesin. CD169 is a macrophage receptor expressed on stromal macrophages in many tissues, particularly found in lymph nodes, bone marrow and spleen.
Uniprot ID:	Q62230
NCBI:	NP_035556.3
GeneID:	20612
Host / Isotype:	Rat / IgG2a
Clone:	3D6.112
Immunogen:	Purified Sialoadhesin. Spleen cells from an immunised AO rat were fused with the cells of the Y3 rat myeloma cell line.
Format:	State: Liquid purified IgG fraction Purification: Affinity Chromatography on Protein G Buffer System: PBS Preservatives: 0.09% Sodium Azide Stabilizers: 1% BSA Label: FITC – Fluorescein Isothiocyanate Isomer 1
Applications:	Flow Cytometry: Neat-1/5 (The Fc region of monoclonal antibodies may bind non-specifically to cells expressing low affinity Fc receptors). Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	This antibody recognizes Mouse CD169, a sialic acid binding site of sialoadhesin.
Species Reactivity:	Tested: Mouse.

Storage:

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.
Should this product contain a precipitate we recommend microcentrifugation before use.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

General Readings:

1. Crocker PR, Kelm S, Dubois C, Martin B, McWilliam AS, Shotton DM, et al. Purification and properties of sialoadhesin, a sialic acid-binding receptor of murine tissue macrophages. *EMBO J.* 1991 Jul;10(7):1661-9. PubMed PMID: 2050106.
2. Kaisho T, Takeda K, Tsujimura T, Kawai T, Nomura F, Terada N, et al. IkappaB kinase alpha is essential for mature B cell development and function. *J Exp Med.* 2001 Feb 19;193(4):417-26. PubMed PMID: 11181694.
3. Barral P, Polzella P, Bruckbauer A, van Rooijen N, Besra GS, Cerundolo V, et al. CD169(+) macrophages present lipid antigens to mediate early activation of iNKT cells in lymph nodes. *Nat Immunol.* 2010 Apr;11(4):303-12. doi: 10.1038/ni.1853. Epub 2010 Mar 14. PubMed PMID: 20228797.
4. Chtanova T, Schaeffer M, Han SJ, van Dooren GG, Nollmann M, Herzmark P, et al. Dynamics of neutrophil migration in lymph nodes during infection. *Immunity.* 2008 Sep 19;29(3):487-96. doi: 10.1016/j.immuni.2008.07.012. Epub 2008 Aug 21. PubMed PMID: 18718768.
5. Hsu KM, Pratt JR, Akers WJ, Achilefu SI, Yokoyama WM. Murine cytomegalovirus displays selective infection of cells within hours after systemic administration. *J Gen Virol.* 2009 Jan;90(Pt 1):33-43. doi: 10.1099/vir.0.006668-0. PubMed PMID: 19088270.
6. Iannaccone M, Moseman EA, Tonti E, Bosurgi L, Junt T, Henrickson SE, et al. Subcapsular sinus macrophages prevent CNS invasion on peripheral infection with a neurotropic virus. *Nature.* 2010 Jun 24;465(7301):1079-83. doi: 10.1038/nature09118. PubMed PMID: 20577213.
7. Idoyaga J, Suda N, Suda K, Park CG, Steinman RM. Antibody to Langerin/CD207 localizes large numbers of CD8alpha+ dendritic cells to the marginal zone of mouse spleen. *Proc Natl Acad Sci U S A.* 2009 Feb 3;106(5):1524-9. doi: 10.1073/pnas.0812247106. Epub 2009 Jan 23. PubMed PMID: 19168629.
8. Kaisho T, Takeda K, Tsujimura T, Kawai T, Nomura F, Terada N, et al. IkappaB kinase alpha is essential for mature B cell development and function. *J Exp Med.* 2001 Feb 19;193(4):417-26. PubMed PMID: 11181694.
9. Kang YS, Kim JY, Bruening SA, Pack M, Charalambous A, Pritsker A, et al. The C-type lectin SIGN-R1 mediates uptake of the capsular polysaccharide of *Streptococcus pneumoniae* in the marginal zone of mouse spleen. *Proc Natl Acad Sci U S A.* 2004 Jan 6;101(1):215-20. Epub 2003 Dec 23. PubMed PMID: 14694198.
10. Lin HH, Faunce DE, Stacey M, Terajewicz A, Nakamura T, Zhang-Hoover J, et al. The macrophage F4/80 receptor is required for the induction of antigen-specific efferent regulatory T cells in peripheral tolerance. *J Exp Med.* 2005 May 16;201(10):1615-25. Epub 2005 May 9. PubMed PMID: 15883173.
11. Phillips R, Svensson M, Aziz N, Maroof A, Brown N, Beattie L, et al. Innate killing of *Leishmania donovani* by macrophages of the splenic marginal zone requires IRF-7. *PLoS Pathog.* 2010 Mar 12;6(3):e1000813. doi: 10.1371/journal.ppat.1000813. PubMed PMID: 20300600.
12. Hashimoto D, Chow A, Greter M, Saenger Y, Kwan WH, Leboeuf M, et al. Pretransplant CSF-1 therapy expands recipient macrophages and ameliorates GVHD after allogeneic hematopoietic cell transplantation. *J Exp Med.* 2011 May 9;208(5):1069-82. doi: 10.1084/jem.20101709. Epub 2011 May 2. PubMed PMID: 21536742.

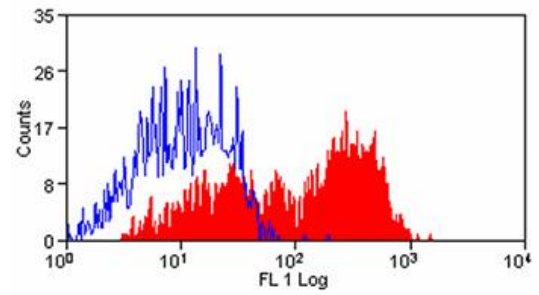
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Pictures:

Mouse Peritoneal Macrophages stained with Rat anti Mouse CD169 Antibody -FITC Cat.-No AM05902FC-N (Clone 3D6.112)



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