

## Monoclonal Antibody to CD30 - FITC

<b>Alternate names:</b>	CD30L receptor, D1S166E, KI-1 antigen, Lymphocyte activation antigen CD30, TNFRSF8, Tumor necrosis factor receptor superfamily member 8
<b>Catalog No.:</b>	AM03094FC-N
<b>Quantity:</b>	100 Tests
<b>Background:</b>	CD30 is a type I transmembrane glycoprotein of the TNF receptor superfamily. CD30 was originally identified as a cell surface antigen of Hodgkins and Reed-Sternberg cells using monoclonal antibody Ki-1. The ligand for CD30 is CD30L (CD153). The binding of CD30 to CD30L mediates pleiotropic effects including cell proliferation, activation, differentiation, and apoptotic cell death. CD30 has a critical role in the pathophysiology of Hodgkin's disease and other CD30+ lymphomas. CD30 acts as a costimulatory molecule in thymic negative selection. In addition to its expression on Hodgkin's and Reed-Sternberg cells, CD30 is also found in some non-Hodgkin's lymphomas (including Burkitt's lymphomas), virus-infected T and B cells, and on normal T and B cells after activation. In T cells, CD30 expression is present on a subset of T cells that produce Th2-type cytokines and on CD4+/CD8+ thymocytes that co-express CD45RO and the IL4 receptor. Soluble form of CD30 (sCD30) serves as a marker reflecting Th2 immune response.
<b>Uniprot ID:</b>	<a href="#">P28908</a>
<b>NCBI:</b>	<a href="#">NP_001234.2</a>
<b>GeneID:</b>	<a href="#">943</a>
<b>Host / Isotype:</b>	Mouse / IgG
<b>Clone:</b>	MEM-268
<b>Immunogen:</b>	Expression vector containing CD30 cDNA (booster suspension of THP-1 cell line)
<b>Format:</b>	<b>State:</b> Liquid purified Ig fraction. <b>Purification:</b> Affinity Chromatography <b>Buffer System:</b> Phosphate buffered saline (PBS) containing 15 mM Sodium Azide as preservative and 0.2% (w/v) high-grade BSA (Protease free) as a stabilizer. <b>Label:</b> FITC – Fluorescein isothiocyanate
<b>Applications:</b>	Flow Cytometry analysis of human blood cells using 20 µl reagent/100 µl of whole blood or 10e6 cells in a suspension. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

- Specificity:** The antibody MEM-268 recognizes extracellular part of CD30 (Ki-1 antigen), a 105 kDa single chain glycoprotein expressed on Hodgkin's and Reed-Sternberg cells; it is also found in Burkitt's lymphomas, virus-infected T and B lymphocytes, and on normal B and T lymphocytes after activation (T lymphocytes that produce Th2-type cytokines and on CD4+/CD8+ T lymphocytes that co-express CD45RO and the IL4 receptor).  
**Species:** Human.  
Other species not tested.
- Storage:** Store the antibody undiluted at 2-8°C.  
**DO NOT FREEZE!**  
Avoid prolonged exposure to light.  
Shelf life: One year from despatch.
- General Readings:**
1. Blazar BR, Levy RB, Mak TW, Panoskaltis-Mortari A, Muta H, Jones M, et al. CD30/CD30 ligand (CD153) interaction regulates CD4+ T cell-mediated graft-versus-host disease. *J Immunol.* 2004 Sep 1;173(5):2933-41. PubMed PMID: 15322151.
  2. Fischer M, Harvima IT, Carvalho RF, Möller C, Naukkarinen A, Enblad G, et al. Mast cell CD30 ligand is upregulated in cutaneous inflammation and mediates degranulation-independent chemokine secretion. *J Clin Invest.* 2006 Oct;116(10):2748-56. Epub 2006 Sep 7. PubMed PMID: 16964309.
  3. Kennedy MK, Willis CR, Armitage RJ. Deciphering CD30 ligand biology and its role in humoral immunity. *Immunology.* 2006 Jun;118(2):143-52. PubMed PMID: 16771849.
  4. Polte T, Behrendt AK, Hansen G. Direct evidence for a critical role of CD30 in the development of allergic asthma. *J Allergy Clin Immunol.* 2006 Oct;118(4):942-8. Epub 2006 Sep 6. PubMed PMID: 17030250.
  5. Bekiaris V, Withers D, Glanville SH, McConnell FM, Parnell SM, Kim MY, et al. Role of CD30 in B/T segregation in the spleen. *J Immunol.* 2007 Dec 1;179(11):7535-43. PubMed PMID: 18025198.
  6. Kusanovic JP, Romero R, Hassan SS, Gotsch F, Edwin S, Chaiworapongsa T, Erez O, Mittal P, Mazaki-Tovi S, Soto E, Than NG, Friel LA, Yoon BH, Espinoza J: Maternal serum soluble CD30 is increased in normal pregnancy, but decreased in preeclampsia and small for gestational age pregnancies. *J Matern Fetal Neonatal Med.* 2007 Aug 28;:1-12
  7. Zeiser R, Nguyen VH, Hou JZ, Beilhack A, Zambricki E, Buess M, et al. Early CD30 signaling is critical for adoptively transferred CD4+CD25+ regulatory T cells in prevention of acute graft-versus-host disease. *Blood.* 2007 Mar 1;109(5):2225-33. Epub 2006 Oct 26. PubMed PMID: 17068147.
  8. Wright CW, Rumble JM, Duckett CS. CD30 activates both the canonical and alternative NF-kappaB pathways in anaplastic large cell lymphoma cells. *J Biol Chem.* 2007 Apr 6;282(14):10252-62. Epub 2007 Jan 29. PubMed PMID: 17261581.
  9. Pavlov I, Martins TB, Delgado JC. Development and validation of a fluorescent microsphere immunoassay for soluble CD30 testing. *Clin Vaccine Immunol.* 2009 Sep;16(9):1327-31. doi: 10.1128/CVI.00047-09. Epub 2009 Jul 15. PubMed PMID: 19605595.