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AM03094RP-N

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Monoclonal Antibody to CD30 - PE

Alternate names: CD30L receptor, D1S166E, KI-1 antigen, Lymphocyte activation antigen CD30, TNFRSF8,

Tumor necrosis factor receptor superfamily member 8

Catalog No.: AM03094RP-N
Quantity: 100 Tests

Background: 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.

Uniprot ID: P28908

NCBI: NP 001234.2

GenelD: 943

Host / Isotype: Mouse / IgG Clone: MEM-268

Immunogen: Expression vector containing CD30 cDNA (booster suspension of THP-1 cell line)

Format: State: Liquid Ig fraction

Purification: Size-exclusion chromatography

Buffer System: Phosphate buffered saline (PBS) containing 15 mM sodium azide and 0.2%

(w/v) high-grade protease free Bovine Serum Albumin (BSA) as a stabilizing agent

Label: PE – Conjugated with R-Phycoerythrin under optimum conditions

Applications: 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.



AM03094RP-N: Monoclonal Antibody to CD30 - PE

Specificity:

This antibody 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 at 2 - 8 °C. DO NOT FREEZE! This product is photosensitive and should be protected from light.

Shelf life: one year from despatch.

General Readings:

- 1. Blazar BR, Levy RB, Mak TW, Panoskaltsis-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.



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