

1P-455-T100

## Monoclonal Antibody to CD30 Phycoerythrin (PE) conjugated (100 tests)

Clone: MEM-268
Isotype: Mouse IgG

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).

Regulatory Status: RUO

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

Species Reactivity: Human

**Preparation:** The purified antibody is conjugated with R-Phycoerythrin (PE) under optimum

conditions. The conjugate is purified by size-exclusion chromatography and

adjusted for direct use. No reconstitution is necessary.

Storage Buffer: The reagent is provided in stabilizing phosphate buffered saline (PBS) solution

containing 15mM sodium azide.

Storage / Stability: Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not

use after expiration date stamped on vial label.

Usage: The reagent is designed for Flow Cytometry analysis of human blood cells using

20 μl reagent / 100 μl of whole blood or 10° cells in a suspension.

The content of a vial (2 ml) is sufficient for 100 tests.

Expiration: See vial label

Lot Number: See vial label

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.



## PRODUCT DATA SHEET

## References:

\*Blazar BR, Levy RB, Mak TW, Panoskaltsis-Mortari A, Muta H, Jones M, Roskos M, Serody JS, Yagita H, Podack ER, Taylor PA: CD30/CD30 ligand (CD153) interaction regulates CD4+ T cell-mediated graft-versus-host disease. J Immunol. 2004 Sep 1;173(5):2933-41.

\*Fischer M, Harvima IT, Carvalho RF, Möller C, Naukkarinen A, Enblad G, Nilsson G: Mast cell CD30 ligand is upregulated in cutaneous inflammation and mediates degranulation-independent chemokine secretion. J Clin Invest. 2006 Oct;116(10):2748-56.

\*Kennedy MK, Willis CR, Armitage RJ: Deciphering CD30 ligand biology and its role in humoral immunity. Immunology. 2006 Jun;118(2):143-52.

\*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.

\*Bekiaris V, Withers D, Glanville SH, McConnell FM, Parnell SM, Kim MY, Gaspal FM, Jenkinson E, Sweet C, Anderson G, Lane PJ: Role of CD30 in B/T segregation in the spleen. J Immunol. 2007 Dec 1;179(11):7535-43.

\*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

\*Zeiser R, Nguyen VH, Hou JZ, Beilhack A, Zambricki E, Buess M, Contag CH, Negrin RS: 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.

\*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;282(14):10252-62.

\*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.

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