

1P-305-T025

Monoclonal Antibody to CD19 Phycoerythrin (PE) conjugated (25 tests)

Clone: LT19

Isotype: Mouse IgG1

Specificity: The antibody LT19 reacts with CD19 (B4), a 95 kDa type I transmembrane

glycoprotein (immunoglobulin superfamily) expressed on B lymphocytes and

follicular dendritic cells; it is lost on plasma cells.

HLDA 10

Regulatory Status: RUO

Immunogen: Daudi human Burkitt lymphoma 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 (0.5 ml) is sufficient for 25 tests.

Expiration: See vial label

Lot Number: See vial label

Background: CD19 is a transmembrane glycoprotein of lg superfamily expressed by B cells from

the time of heavy chain rearrangement until plasma cell differentiation. It forms a tetrameric complex with CD21 (complement receptor type 2), CD81 (TAPA-1) and Leu13. Together with BCR (B cell antigen receptor), this complex signals to decrease B cell treshold for activation by the antigen. Besides being signal-amplifying coreceptor for BCR, CD19 can also signal independently of BCR coligation and it turns out to be a central regulatory component upon which multiple signaling pathways converge. Mutation of the CD19 gene results in hypogammaglobulinemia, whereas CD19 overexpression causes B cell

hyperactivity.



PRODUCT DATA SHEET

References:

*Fujimoto M, Poe JC, Jansen PJ, Sato S, Tedder TF: CD19 amplifies B lymphocyte signal transduction by regulating Src-family protein tyrosine kinase activation. J Immunol. 1999 Jun 15;162(12):7088-94.

*Inabe K, Kurosaki T: Tyrosine phosphorylation of B-cell adaptor for phosphoinositide 3-kinase is required for Akt activation in response to CD19 engagement. Blood. 2002 Jan 15;99(2):584-9.

*van Zelm MC, Reisli I, van der Burg M, Castaño D, van Noesel CJ, van Tol MJ, Woellner C, Grimbacher B, Patiño PJ, van Dongen JJ, Franco JL: An antibody-deficiency syndrome due to mutations in the CD19 gene. N Engl J Med. 2006 May 4;354(18):1901-12.

*Shi X, Xie C, Chang S, Zhou XJ, Tedder T, Mohan C: CD19 hyperexpression augments Sle1-induced humoral autoimmunity but not clinical nephritis. Arthritis Rheum. 2007 Sep;56(9):3057-69.

*Elias F, Flo J, Lopez RA, Zorzopulos J, Montaner A, Rodriguez JM: Strong cytosine-guanosine-independent immunostimulation in humans and other primates by synthetic oligodeoxynucleotides with PyNTTTTGT motifs. J Immunol. 2003 Oct 1;171(7):3697-704.

*Lin CW, Liu TY, Chen SU, Wang KT, Medeiros LJ, Hsu SM: CD94 1A transcripts characterize lymphoblastic lymphoma/leukemia of immature natural killer cell origin with distinct clinical features. Blood. 2005 Nov 15;106(10):3567-74. Epub 2005 Jul 26.

*Stehlíková O, Chovancová J, Tichý B, Krejčí M, Brychtová Y, Panovská A, Francová Skuhrová H, Burčková K, Borský M, Loja T, Mayer J, Pospíšilová S, Doubek M: Detecting minimal residual disease in patients with chronic lymphocytic leukemia using 8-color flow cytometry protocol in routine hematological practice. Int J Lab Hematol. 2013 Sep 13. doi: 10.1111/ijlh.12149.

*Kayserova J, Vcelakova J, Stechova K, Dudkova E, Hromadkova H, Sumnik Z, Kolouskova S, Spisek R, Sediva A: Decreased dendritic cell numbers but increased TLR9-mediated interferon-alpha production in first degree relatives of type 1 diabetes patients. Clin Immunol. 2014 Jul;153(1):49-55.

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