

1P-305-T100

## Monoclonal Antibody to CD19 Phycoerythrin (PE) conjugated (100 tests)

<b>Clone:</b>	LT19
<b>Isotype:</b>	Mouse IgG1
<b>Specificity:</b>	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
<b>Regulatory Status:</b>	RUO
<b>Immunogen:</b>	Daudi human Burkitt lymphoma cell line
<b>Species Reactivity:</b>	Human
<b>Preparation:</b>	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.
<b>Storage Buffer:</b>	The reagent is provided in stabilizing phosphate buffered saline (PBS) solution containing 15mM sodium azide.
<b>Storage / Stability:</b>	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.
<b>Usage:</b>	The reagent is designed for Flow Cytometry analysis of human blood cells using 20 µl reagent / 100 µl of whole blood or 10 <sup>6</sup> cells in a suspension. The content of a vial (2 ml) is sufficient for 100 tests.
<b>Expiration:</b>	See vial label
<b>Lot Number:</b>	See vial label
<b>Background:</b>	CD19 is a transmembrane glycoprotein of Ig 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 threshold 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.

**For laboratory research only, not for drug, diagnostic or other use.**

**Antibodies****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, Casta&ntilde;o D, van Noesel CJ, van Tol MJ, Woellner C, Grimbacher B, Pati&ntilde;o 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.

Unless indicated otherwise, all products are For Research Use Only and not for diagnostic or therapeutic use. Not for resale or transfer either as a stand-alone product or as a component of another product without written consent of EXBIO. EXBIO will not be held responsible for patent infringement or other violations that may occur with the use of our products. All orders are accepted subject to EXBIO's term and conditions which are available at [www.exbio.cz](http://www.exbio.cz).

**For laboratory research only, not for drug, diagnostic or other use.**