



1F-305-T025

## Monoclonal Antibody to CD19 Fluorescein (FITC) conjugated (25 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.<br>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 Fluorescein isothiocyanate (FITC) under optimum conditions. The reagent is free of unconjugated FITC 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.<br>The content of a vial (0.5 ml) is sufficient for 25 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, 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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