

1F-492-T100

Monoclonal Antibody to CD2 Fluorescein (FITC) conjugated (100 tests)

Clone: LT2

Isotype: Mouse IgG2b

Specificity: The antibody LT2 reacts with CD2, a 50 kDa glycoprotein present on the human

peripheral blood T lymphocytes and NK cells; also expressed by all thymocytes.

HLDA VI; WS Code T 6T-008

Regulatory Status: RUO

Immunogen: Normal human blood lymphocytes.

Species Reactivity: Human

Preparation: 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.

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: CD2 belongs to T lymphocyte glycoproteins of immunoglobulin superfamily. Its

interaction with CD58 stabilizes adhesion between T cells and antigen presenting or target cells. Relatively low affinity of CD2 to CD58 (as measured in solution) is compensated within the two-dimensional cell-cell interface to provide tight adhesion. Moreover, T cell activation induces increased CD2 expression and its lateral mobility, making easier contact between CD2 and CD58. Subsequently, T cell activation causes fixation of CD58-CD2 at sites of cell-cell contact, thereby strengthening intercellular adhesion. CD2 deficiency reduces intestinal

inflammation and helps to control infection.



PRODUCT DATA SHEET

References:

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*Zhu DM, Dustin ML, Cairo CW, Thatte HS, Golan DE.: Mechanisms of Cellular Avidity Regulation in CD2-CD58-Mediated T Cell Adhesion. ACS Chem Biol. 2006 Nov 21;1(10):649-58.

*Pawlowski NN, Struck D, Grollich K, Kuhl AA, Zeitz M, Liesenfeld O, Hoffmann JC.: CD2 deficiency partially prevents small bowel inflammation and improves parasite control in murine Toxoplasma gondii infection. World J Gastroenterol. 2007 Aug 21;13(31):4207-13.

Filatov AV, Bachurin PS, Markova NA, Surnakova NE: [A panel of monoclonal antibodies against human lymphocyte antigens] Eksp Onkol. 1989;11(2):28-32. *Leukocyte Typing VI., Kishimoto T. et al. (Eds.), Garland Publishing Inc. (1997). *Gannon GA, Rhind SG, Suzui M, Zamecnik J, Sabiston BH, Shek PN, Shephard RJ: beta-Endorphin and natural killer cell cytolytic activity during prolonged exercise. Is there a connection? Am J Physiol. 1998 Dec;275(6 Pt 2):R1725-34. *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.

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