IOTest® CD62L-ECD

PN IM2713U – 1 mL Liquid – 10 µL / test* – Clone DREG56

Analyte Specific Reagent.

Analytical and performance characteristics are not established.

SPECIFICITY

CD62L (L-selectin; leucocyte adhesion molecule 1 (LAM-1); lectin adhesion molecule 1 (LECAM-1) is a member of the selectin family (1). As other selectins (CD62E, CD62P), CD62L (76 kDa) is a membrane-anchored Ca^{++}-dependent C-type lectin (2) that binds to cell-surface carbohydrate ligands. The roles of CD62L in the interaction of leucocytes with ligands on high endothelial venule cells in lymphoid tissue, on activated endothelium in non-lymphoid organs and in signal transduction are reviewed in Refs. 3 and 4.

CD62L is expressed by nearly all circulating resting leucocytes, by some spleen and bone marrow lymphocytes, as well as by some thymocytes and bone marrow myeloid cells (1). The expression level of CD62L on lymphocytes may be subject to control mechanisms such as downregulation and / or upregulation (2, 3, 5). On neutrophils, monocytes and their bone marrow precursors, CD62L is also downregulated by stimulation with granulocyte-macrophage colony stimulating factor (GM-CSF) (6).

The DREG56 monoclonal antibody (mAb) reacts with an epitope included in the lectin-like distal domain of the CD62L antigen (7). The DREG56 mAb has been assigned to the CD62L cluster of differentiation during the 5th International Workshop on Human Leucocyte Differentiation Antigens (HLDA) in Boston, U.S.A., in 1993 (WS Code: SO56) (2). It was used as a reference mAb (WS Code: Ref.33) during the 6th HLDA in Kobe, Japan, in 1996 (1).

REAGENT

IOTest CD62L-ECD Conjugated Antibody

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Clone	DREG56
Ig chain	Mouse IgG1
Immunogen	Activated human leucocytes
Hybridoma	SP2/0 x Balb/c
Source	Ascites fluid
Purification	Ion exchange or affinity chromatography
Conjugation	Energy Coupled Dye (ECD): The Ig is conjugated to a tandem dye constituted of R-phycoerythrin covalently linked to Texas Red at 0.8-1 mole of ECD per mole of Ig.
Fluorescence	ECD (Red) Excites at 486–580 nm Emits at 610–635 nm
Buffer	2 mg/mL bovine serum albumin in phosphate-buffered saline containing 0.1% sodium azide.

STATEMENT OF WARNINGS

1. This reagent contains 0.1% sodium azide. Sodium azide under acid conditions yields hydrazoic acid, an extremely toxic compound. Azide compounds should be flushed with running water while being discarded. These precautions are recommended to avoid deposits in metal piping in which explosive conditions can develop. If skin or eye contact occurs, wash excessively with water.
2. Specimens, samples and all material coming in contact with them should be handled as if capable of transmitting infection and disposed of with proper precautions.
3. Never pipet by mouth and avoid contact of samples with skin and mucous membranes
4. Do not use antibody beyond the expiration date on the label.
5. Do not expose reagents to strong light during storage or incubation.
6. Avoid microbial contamination of reagents or incorrect results might occur.
7. Use good laboratory practices when handling this reagent.

STORAGE CONDITIONS AND STABILITY

This reagent is stable up to the expiration date when stored at 2 – 8°C. Do not freeze. Minimize exposure to light.

EVIDENCE OF DETERIORATION

Any change in the physical appearance of this ECD-labeled reagent (clear, colorless to pinkish liquid) or any major variation in values obtained for control samples may indicate deterioration and the reagent should not be used.

REAGENT PREPARATION

No reconstitution is necessary. This monoclonal antibody may be used directly from the vial. Bring reagent to 18 – 25°C prior to use.

SELECTED RESEARCH REFERENCES

1. Goda, K., Tanaka, T., Takeuchi, E., Miyasaka, M., "CD62L workshop panel report", 1997, Leucocyte Typing VI, White Cell Differentiation Antigens. Kishimoto, T., et al, Eds., Garland Publishing, Inc., 420-422.
2. Diacovo, T., Springer, T.A., "CD62L (L-selectin) cluster report", 1995, Leucocyte Typing V, White Cell Differentiation Antigens. Schlossman, S.F., et al., Eds., Oxford University Press, 1503-1504.
3. Stamenkovic, I., "The L-Selectin adhesion system", 1995, Curr. Opin. Hematol., 2, 68-75.
4. Crockett-Torabi, E., "Selectins and mechanisms of signal transduction", 1998, J. Leukocyte Biol., 63, 1-13.
5. Kishimoto, T.K., Jutila, M.A., Berg, E.L., Butcher, E.C., "Neutrophil Mac-1 and MEL-14 adhesion proteins inversely regulated by chemo-tactic factors", 1989, Science, 245, 1238-1241.
6. Griffin, J.D., Spertini, O., Ernst, T.J., Belvin, M.P., Levine, H.B., Kanakura, Y., Tedder, T.F., "Granulocyte-macrophage colony-stimulating factor and other cytokines regulate surface expression of the leukocyte adhesion molecule-1 on human neutrophils, monocytes, and their precursors", 1990, J. Immunol., 145, 576-584.
7. Kishimoto, T.K., Jutila, M.A., Butcher, E.C., "Identification of a human peripheral lymph node homing receptor: A rapidly down-regulated adhesion molecule", 1990, Proc. Natl. Acad. Sci. USA, 87, 2244-2248.

PRODUCT AVAILABILITY

IOTest CD62L-ECD Conjugated Antibodies

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ECD is licensed under patent 4,520,104.

For additional information in the USA, call 800-526-7694.
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(*): 10 µL is the quantity of product sufficient to stain 5×10^5 cells in a standard immunofluorescence assay

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