Technical Data Sheet

PE Rat Anti-Mouse CD62L

Product Information

Material Number: 561918

Alternate Name: L-selectin, LECAM-1, Ly-22

Size 25 µg **Concentration:** 0.2 mg/ml MEL-14 Clone:

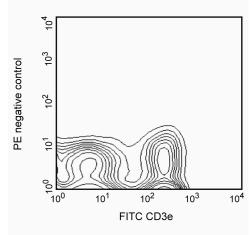
C3H/eb mouse B lymphoma 38C-13 Immunogen:

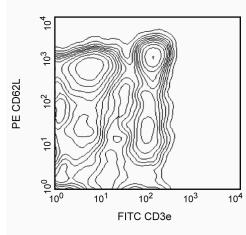
Isotype: Rat (F344) IgG2a, ĸ Reactivity: QC Testing: Mouse

Storage Buffer: Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The MEL-14 antibody reacts with CD62L (L-selectin), a 95 kDa (on neutrophils) or 74 kDa (on lymphocytes) receptor with lectin-like and Epidermal Growth Factor-like domains. In the mouse, L-selectin is detected on most thymocytes, with the highest levels of expression on an immunocompetent subset and a population of dividing progenitor cells, and on peripheral leukocytes, including subsets of B and T lymphocytes, neutrophils, monocytes, and eosinophils. This member of the selectin adhesion molecule family appears to be required for lymphocyte homing to peripheral lymph nodes and to contribute to neutrophil emigration at inflammatory sites. L-selectin is rapidly shed from lymphocytes and neutrophils upon cell activation, metalloproteinases may mediate the release of CD62L ectodomains from the cell surface. The level of CD62L expression, along with other markers, distinguishes naive, effector, and memory T cells. L-selectin binds to sialytaed oligosaccharide determinants on high endothelial venules (HEV) in peripheral lymph nodes. In vitro studies have demonstrated that CD34, GlyCAM-1, and MAdCAM-1, all recognized by mAb MECA-79 (anti-mouse PNAd Carbohydrate Epitope, Cat. No. 553863), may be ligands for CD62L. MEL-14 mAb blocks in vitro binding of lymphocytes to peripheral lymph node HEV and inhibits in vivo lymphocyte extravasation into peripheral lymph nodes and late stages of leukocyte rolling.





Two-color analysis of CD62L expression on spleen lymphocytes. BALB/c splenocytes were simultaneously stained with PE Rat Anti-Mouse CD62L (right panel) and FITC Hamster Anti-Mouse CD3e (Cat. No. 553061/553062, both panels) monoclonal antibodies. Flow cytometry was performed on a BD FACScan $^{\text{\tiny{TM}}}$ flow cytometry system.

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

Application Notes

Application

Flow cytometry Routinely Tested

Recommended Assay Procedure:

This antibody conjugate is compatible with intracellular staining protocols using the BD Cytofix/Cytoperm™ Kit (Cat. No. 554714).

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Suggested Companion Products

Catalog Number	Name	Size	Clone	
553930	PE Rat IgG2a, κ Isotype Control	0.1 mg	R35-95	
553061	FITC Hamster Anti-Mouse CD3e	0.1 mg	145-2C11	
554656	Stain Buffer (FBS)	500 ml	(none)	

Product Notices

- 1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
- 2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
- 3. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
- Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

References

Cerwenka A, Carter LL, Reome JB, Swain SL, Dutton RW. In vivo persistence of CD8 polarized T cell subsets producing type 1 or type 2 cytokines. *J Immunol.* 1998; 161(1):97-105. (Biology)

Gallatin WM, Weissman IL, Butcher EC. A cell-surface molecule involved in organ-specific homing of lymphocytes. *Nature*. 1983; 304(5921):30-34. (Immunogen) lwabuchi K, Ohgama J, Ogasawara K, et al. Distribution of MEL-14+ cells in various lymphoid tissues. *Immunobiology*. 1991; 182(2):161-173. (Biology) Jung TM, Gallatin WM, Weissman IL, Dailey MO. Down-regulation of homing receptors after T cell activation. *J Immunol*. 1988; 141(12):4110-4117. (Biology) Kishimoto TK, Jutila MA, Berg EL, Butcher EC. Neutrophil Mac-1 and MEL-14 adhesion proteins inversely regulated by chemotactic factors. *Science*. 1989; 245(4923):1238-1241. (Biology)

Lanzavecchia A, Sallusto F. Dynamics of T lymphocyte responses: intermediates, effectors, and memory cells. *Science*. 2000; 290(5489):92-97. (Biology) Lewinsohn DM, Bargatze RF, Butcher EC. Leukocyte-endothelial cell recognition: evidence of a common molecular mechanism shared by neutrophils, lymphocytes, and other leukocytes. *J Immunol*. 1987; 138(12):4313-4321. (Biology)

Ley K, Bullard DC, Arbones ML, et al. Sequential contribution of L- and P-selectin to leukocyte rolling in vivo. *J Exp Med.* 1995; 181(2):669-675. (Biology) Mobley JL, Dailey MO. Regulation of adhesion molecule expression by CD8 T cells in vivo. I. Differential regulation of gp90MEL-14 (LECAM-1), Pgp-1, LFA-1, and VLA-4 alpha during the differentiation of cytotoxic T lymphocytes induced by allografts. *J Immunol.* 1992; 148(8):2348-2356. (Biology)

Peschon JJ, Slack JL, Reddy P, et al. An essential role for ectodomain shedding in mammalian development. *Science*. 1998; 282(5392):1281-1284. (Biology) Pizcueta P, Luscinskas FW. Monoclonal antibody blockade of L-selectin inhibits mononuclear leukocyte recruitment to inflammatory sites in vivo. *Am J Pathol*. 1994; 145(2):461-469. (Biology)

Reichert RA, Jerabek L, Gallatin WM, Butcher EC, Weissman IL. Ontogeny of lymphocyte homing receptor expression in the mouse thymus. *J Immunol.* 1986; 136(10):3535-3542. (Biology)

Reichert RA, Weissman IL, Butcher EC. Phenotypic analysis of thymocytes that express homing receptors for peripheral lymph nodes. *J Immunol.* 1986; 136(10):3521-3528. (Biology)

Reichert RA, Weissman IL, Butcher EC. Dual immunofluorescence studies of cortisone-induced thymic involution: evidence for a major cortical component to cortisone-resistant thymocytes. *J Immunol.* 1986; 136(10):3529-3534. (Biology)

Seibold F, Seibold-Schmid B, Cong Y, et al. Regional differences in L-selectin expression in murine intestinal lymphocytes. *Gastroenterology*. 1998; 114(5):965-974. (Biology)

Shortman K, Wilson A, Van Ewijk W, Scollay R. Phenotype and localization of thymocytes expressing the homing receptor-associated antigen MEL-14: arguments for the view that most mature thymocytes are located in the medulla. *J Immunol.* 1987; 138(2):342-351. (Biology)

Siegelman MH, Cheng IC, Weissman IL, Wakeland EK. The mouse lymph node homing receptor is identical with the lymphocyte cell surface marker Ly-22: role of the EGF domain in endothelial binding. *Cell.* 1990; 61(4):611-622. (Biology)

Sprent J, Tough DF. Lymphocyte life-span and memory. Science. 1994; 265(5177):1395-1400. (Biology)

Vestweber D. Ligand-specificity of the selectins. J Cell Biochem. 1996; 61(4):585-591. (Biology)

Yang G, Mizuno MT, Hellstrom KE, Chen L. B7-negative versus B7-positive P815 tumor: differential requirements for priming of an antitumor immune response in lymph nodes. *J Immunol.* 1997; 158(2):851-858. (Biology)

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