

DESCRIPTION	
Species Reactivity	Rat
Specificity	Detects rat L-Selectin/CD62L in direct ELISAs and Western blots. In direct ELISAs and Western blots, this antibody does not cross-react with recombinant mouse (rm) L-Selectin or rhL-Selectin.
Source	Monoclonal Mouse IgG ₁ Clone # 196021
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant rat L-Selectin/CD62L Trp39-Asn332 Accession # P30836
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

APPLICATIONS	
Please Note: Optimal dilutions should be determined by each laboratory for each application. <i>General Protocols</i> are available in the <i>Technical Information</i> section on our website.	

	Recommended Concentration	Sample
Western Blot	1 µg/mL	Recombinant Rat L-Selectin/CD62L Fc Chimera (Catalog # 1534-LS) under non-reducing conditions only
Rat L-Selectin/CD62L Sandwich Immunoassay		Reagent
ELISA Capture	2-8 µg/mL	Rat L-Selectin/CD62L Antibody (Catalog # MAB1534)
ELISA Detection	0.1-0.4 µg/mL	Rat L-Selectin/CD62L Biotinylated Antibody (Catalog # BAF1534)
Standard		Recombinant Rat L-Selectin/CD62L Fc Chimera (Catalog # 1534-LS)

PREPARATION AND STORAGE	
Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

L-Selectin (also known as Leukocyte Selectin, LAM-1, LECAM-1, LECCAM-1, TQ1, Leu-8, MEL-14 antigen, DREG, lymph node homing receptor, CD62L) is a member of the Selectin family of cell surface molecules which include E-Selectin and P-Selectin. All Selectins have an extracellular domain composed of an amino-terminal calcium-dependent lectin domain, an epidermal growth factor (EGF)-like domain, two to nine short consensus repeat (SCR) units, a transmembrane domain, and a cytoplasmic tail. L-Selectin expression is limited to hematopoietic cells, with most leukocytes expressing L-Selectin at some stage of differentiation. The majority of myeloid cells, B cells, and virgin T cells express L-Selectin, while only a sub-population of memory T cells and NK cells express L-Selectin. Lymphocytes and neutrophils exhibit a reversible loss of L-Selectin after cellular activation that results from endoproteolytic release of the extracellular portion of receptor from the cell surface. Cleavage of L-Selectin from the cell surface results in a high circulating level of functionally active soluble L-Selectin. All selectins bind sialylated and fucosylated oligosaccharides that are linked to glycoproteins and glycolipids. L-Selectin specifically binds to at least three different heavily glycosylated mucin-like proteins: GlyCAM-1, CD34, and MAdCAM-1. Multiple studies indicated that L-Selectin, P-Selectin E-Selectin collaborate to mediate the initial binding of leukocytes to endothelium at sites of tissue injury and inflammation, producing the characteristic "rolling" of leukocytes along the endothelium. L-Selectin knockout mice have a 70% decrease in rolling leukocytes in exposed mesentery and have impaired neutrophil and monocyte migration into areas of inflammation. Additionally, L-Selectin knockout mice have relatively few lymphocytes present in peripheral lymph nodes and Peyer's patches. Short-term in vivo homing experiments in L-Selectin deficient mice demonstrate that L-Selectin is involved in lymphocyte homing to Peyer's patches and mesenteric lymph nodes in the gut. Rat and human L-Selectin share 77% amino acid sequence homology. Rat and mouse L-Selectin share 83% amino acid sequence homology (1, 2).

References:

1. Tedder, T.F. *et al.* (1995) *FASEB Journ.* **9**:866.
2. McEver, R.P. *et al.* (1995) *J. Biol. Chem.* **270**:11025.