

PRODUCT INFORMATION



L-Selectin/CD62L Extracellular Domain (human, recombinant)

Item No. 35509

Overview and Properties

Synonyms: CD62 Antigen-like Family Member L, LAM1, LECAM1, Leukocyte-endothelial Cell Adhesion Molecule 1

Source: Recombinant human C-terminal His-tagged L-selectin expressed in CHO cells

Amino Acids: 29-332

Uniprot No.: P14151

Molecular Weight: 35.6 kDa

Storage: -80°C (as supplied)

Stability: ≥1 year

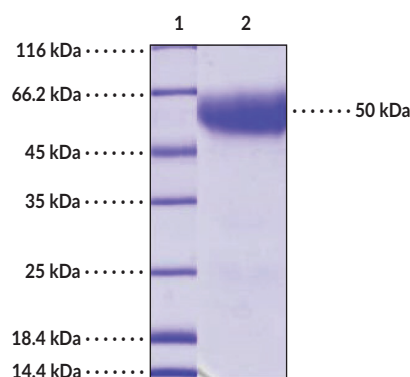
Purity: ≥95% estimated by SDS-PAGE

Supplied in: Lyophilized from sterile 10 mM disodium phosphate, 1.8 mM monopotassium phosphate, 137 mM sodium chloride, 2.7 mM potassium chloride, 1 mM magnesium chloride, and 1 mM calcium chloride, pH 7.4

Endotoxin Testing: <1.0 EU/μg, determined by the LAL endotoxin assay

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Image



Lane 1: MW Markers
Lane 2: L-Selectin/CD62L Extracellular Domain

SDS-PAGE Analysis of L-Selectin/CD62L Extracellular Domain.
This protein has a calculated molecular weight of 35.6 kDa. It has an apparent molecular weight of approximately 50 kDa by SDS-PAGE under reducing conditions due to glycosylation.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

L-Selectin, also known as CD62L, is a glycoprotein and cell adhesion molecule that is encoded by the *SELL* gene in humans.^{1,2} It is composed of an N-terminal calcium-dependent lectin domain that recognizes glycoproteins, an EGF-like domain, two consensus repeats, a transmembrane domain, and an intracellular C-terminal tail. L-selectin is expressed in leukocytes and localizes to the plasma membrane.³ It also exists as a soluble form that results from alternative splicing of *SELL* pre-mRNA or by ectodomain shedding via proteolytic cleavage.² L-selectin facilitates leukocyte rolling on activated vascular endothelium and lymphocyte homing to high endothelial venules of lymph nodes.⁴ It binds to several glycoproteins containing the sulfated sialyl Lewis X (6-sulfo-sLe^X) epitope, including P-selectin glycoprotein ligand-1 (PSGL-1) and glycosylation-dependent cell adhesion molecule-1 (GlyCAM-1).¹ Human, but not mouse, L-selectin also binds to E-selectin from human, pig, rat, and mouse neutrophils.⁶ *Sell*^{-/-} mice exhibit a reduction in the lymphocyte count in peripheral lymph nodes, as well as a decrease in neutrophil recruitment in a model of peritonitis induced by thioglycolate.⁴ Serum levels of soluble L-selectin are lower in patients with sepsis and associated with higher mortality.⁵ Cayman's L-Selectin (human, recombinant) protein consists of 315 amino acids, has a calculated molecular weight of 35.6 kDa, and a predicted N-terminus of Asp29 after signal peptide cleavage. By SDS-PAGE, under reducing conditions, the apparent molecular mass of the protein is 50 kDa due to glycosylation.

References

1. Tvaroška, I., Selvaraj, C., and Koča, J. Selectins-The two Dr. Jekyll and Mr. Hyde faces of adhesion molecules-A review. *Molecules* **25**(12), 2835 (2020).
2. Ivetic, A., Green, H.L.H., and Hart, S.J. L-selectin: A major regulator of leukocyte adhesion, migration and signaling. *Front. Immunol.* **10**, 1068 (2019).
3. Stein, J.V., Cheng, G., Stockton, B.M., et al. L-selectin-mediated leukocyte adhesion in vivo: Microvillous distribution determines tethering efficiency, but not rolling velocity. *J. Exp. Med.* **189**(1), 37-50 (1999).
4. Arbonés, M.L., Ord, D.C., Ley, K., et al. Lymphocyte homing and leukocyte rolling and migration are impaired in L-selectin-deficient mice. *Immunity* **1**(4), 247-260 (1994).
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6. Zöllner, O., Lenter, M.C., Blanks, J.E., et al. L-selectin from human, but not from mouse neutrophils binds directly to E-selectin. *J. Cell. Biol.* **136**(3), 707-716 (1997).

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