Data Sheet (Cat.No.TMPY-06595)

TargetMol

L-selectin Protein, Rhesus, Recombinant (His)

General Information

Synonyms:	selectin L
Protein Construction:	A DNA sequence encoding the Rhesus SELL (Met1-Asn332) was expressed with a polyhistidine tag at the C-terminus. Predicted N terminal: Asp 29
Species:	Rhesus
Expression Host:	HEK293 Cells
Molecular Weight:	35.6 kDa (predicted); 52-63 kDa (reducing conditions)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 95 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

L-selectin (SELL), also known as CD62L, is a key adhesion molecule that regulates both the migration of leukocytes at sites of inflammation and the recirculation of lymphocytes between blood and lymphoid tissues. It belongs to the selectin family of proteins, and consisting of a large, highly glycosylated, extracellular domain, a single spanning transmembrane domain and a small cytoplasmic tail. L-selectin is the only selectin expressed on leukocytes and mediates a number of leukocyte-endothelial interactions. L-selectin acts as a "homing receptor" for leukocytes to enter secondary lymphoid tissues via high endothelial venules. Ligands present on endothelial

cells will bind to leukocyte expressing L-selectin, slowing leukocyte trafficking through the blood, and facilitating entry into a secondary lymphoid organ at that point. L-selectin-mediated lymphocyte recirculation is required for maintaining the appropriate tissue distribution of lymphocyte subpopulations including naïve and effector subsets such as regulatory T cells. In addition, L-selectin-mediated entry into peripheral lymph nodes is required for optimal induction of lymphocyte homeostatic proliferation during lymphopenia. Importantly, L-selectin has been shown to have both adhesive and signaling functions during leukocyte migration. L-selectin has also been shown to mediate leukocyte recruitment during chronic inflammatory and autoimmune diseases and thus is a potential therapeutic target for drug development.

Reference

Smalley DM,et al.(2005) L-selectin: mechanisms and physiological significance of ectodomain cleavage. J Cell Mol Med. 9(2): 255-66.

Grailer JJ,et al.(2009) L-selectin: role in regulating homeostasis and cutaneous inflammation. J Dermatol Sci. 56(3): 141-7.

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Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481