

## Recombinant Human selectin P ligand, His-tagged

**Cat. No.** SELPLG-433H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | SELPLG, 42-121aa, Human, His tag, E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>ProteinLength</b>    | 42-121 a.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Description</b>      | <p>SELPLG is a glycoprotein that functions as a high affinity counter-receptor for the cell adhesion molecules P-, E- and L- selectin expressed on myeloid cells and stimulated T lymphocytes. As such, this protein plays a critical role in leukocyte trafficking during inflammation by tethering of leukocytes to activated platelets or endothelia expressing selectins. This protein requires two post-translational modifications, tyrosine sulfation and the addition of the sialyl Lewis x tetrasaccharide (sLex) to its O-linked glycans, for its high-affinity binding activity. Aberrant expression of this gene and polymorphisms in this gene are associated with defects in the innate and adaptive immune response. Alternate splicing results in multiple transcript variants. Recombinant human SELPLG protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.</p> |
| <b>Form</b>             | Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 0.15M NaCl, 10% glycerol, 1mM DTT.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Molecular Mass</b>   | 10.9 kDa (103aa) confirmed by MALDI-TOF(Molecular size on SDS-PAGE will appear higher)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

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|                      |                                                                                                                                                    |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>AA Sequence</b>   | MGSSHHHHHH SSGLVPRGSH MGSQATEY EY LDYDFLPETE PPEMLRNSTD<br>TTPLTGPGTP ESTTVEPAAR RSTGLDAGGA VTELTTELAN MGNLSTDSAA MEI                              |
| <b>Purity</b>        | >80% by SDS - PAGE                                                                                                                                 |
| <b>Storage</b>       | Can be stored at +4C short term (1-2 weeks). For long term storage, aliquot and store at -20C or -70C. Avoid repeated freezing and thawing cycles. |
| <b>Concentration</b> | 0.25 mg/ml (determined by Bradford assay)                                                                                                          |

## GENE INFORMATION

|                            |                                                                                                                                                     |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>           | SELPLG selectin P ligand [ Homo sapiens ]                                                                                                           |
| <b>Official Symbol</b>     | SELPLG                                                                                                                                              |
| <b>Synonyms</b>            | SELPLG; selectin P ligand; P-selectin glycoprotein ligand 1; CD162; PSGL 1; cutaneous lymphocyte-associated associated antigen; CLA; PSGL1; PSGL-1; |
| <b>Gene ID</b>             | 6404                                                                                                                                                |
| <b>mRNA Refseq</b>         | NM_001206609                                                                                                                                        |
| <b>Protein Refseq</b>      | NP_001193538                                                                                                                                        |
| <b>MIM</b>                 | 600738                                                                                                                                              |
| <b>UniProt ID</b>          | Q14242                                                                                                                                              |
| <b>Chromosome Location</b> | 12q24                                                                                                                                               |

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**Pathway**

Cell adhesion molecules (CAMs), organism-specific biosystem; Cell adhesion molecules (CAMs), conserved biosystem; Cell surface interactions at the vascular wall, organism-specific biosystem; Hemostasis, organism-specific biosystem; Staphylococcus aureus infection, organism-specific biosystem; Staphylococcus aureus infection, conserved biosystem; amb2 Integrin signaling, organism-specific biosystem;

**Function**

bacterial cell surface binding; protein binding; receptor binding;

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