



LD Biopharma, Inc.
9924 Mesa Rim Road Suite B
San Diego, CA 92121
Tel: 858-876-8266
<http://www.ldbiopharma.com>

- PRODUCT DATA SHEET -

Name of Product: Recombinant Human CD162 Protein
Catalog Number: hRP-1208
Manufacturer: LD Biopharma, Inc.

Introduction

Human P-selectin glycoprotein ligand 1 (SELPLG, also named as CD162) gene encodes 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, CD162 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.

Full-length extracellular domain of human CD162 cDNA (18 – 320 aa, Isoform-II, derived from BC029782) was constructed with codon optimization and expressed with a small T7-His-TEV cleavage site Tag (29aa) fusion at its N-terminal. This protein is expressed in E.coli as inclusion bodies. The final product was refolded using our unique “temperature shift inclusion body refolding” technology and chromatographically purified.

Gene Symbol: CD162 (SELPLG; CLA; PSGL-1)
Accession Number: NP_002997
Species: Human
Size: 50 µg / Vial
Composition: 1.0 mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, arginine, DTT and Glycerol.
Storage: In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least 30 days.



LD Biopharma, Inc.
9924 Mesa Rim Road Suite B
San Diego, CA 92121
Tel: 858-876-8266
<http://www.ldbiopharma.com>

Key References

Yamayoshi,S., et al., *Functional comparison of SCARB2 and PSGL1 as receptors for enterovirus 71*. J. Virol. 87 (6), 3335-3347 (2013)

Gong,L., et al., *Activated platelets interact with lung cancer cells through P-selectin glycoprotein ligand-1*. Pathol. Oncol. Res. 18 (4), 989-996 (2012)

Stubke,K., et al., *Selectin-deficiency reduces the number of spontaneous metastases in a xenograft model of human breast cancer*. Cancer Lett. 321 (1), 89-99 (2012)

Applications

1. May be used for in vitro non-glycosylated CD162 protein mediated P-selectin related tumor metastasis regulation study with this protein as either coating matrix protein or soluble factor.
2. May be used as CD162 protein-protein interaction assay.
3. As enzymatic substrate for various proteases.
4. As antigen for specific antibody production.

Quality Control

Purity: > 90% by SDS-PAGE.

Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHHENLYFQGGTRLQLWDTWADEAEKALGPLLARDRRQATEYEYLDYD
FLPETEPPPEMLRNSTDTTPLTGPGTPESTTVEPAARRSTGLDAGGAVTELTTELANMGNLSTDS
AAMEIQTTQPAATEAQTTPVPTEAQTTPLAATEAQTTRLTATEAQTTPLAATEAQTTPPAATE
AQTTPPTGLEAQTTPAAMEAQTTPAAMEAQTTPPAAMEAQTTPAAMEAQTTPAAMEAQTTPA
QPTATEAQTTPLAAMEALSTEPSATEALSMEPTTKRGLFIPFSVSSVTHKGIPMAASNLSVNY
VGAPDHISVKQC