Recombinant Human P-Selectin/CD62P
Fc Chimera
Catalog Number: 137-PS

DESCRIPTION

Source
Mouse myeloma cell line, NS0-derived

<table>
<thead>
<tr>
<th>Source</th>
<th>Human P-Selectin (Trp42 - Ala771)</th>
<th>IEGRDMD</th>
<th>Human IgG1 (Pro100 - Lys330)</th>
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</thead>
</table>

N-terminal Sequence Analysis
Trp42

Structure / Form
Disulfide-linked homodimer

Predicted Molecular Mass
106 kDa (monomer)

SPECIFICATIONS

SDS-PAGE
146-160 kDa, reducing conditions

Activity
Measured by the ability of the immobilized protein to support the adhesion of U937 human histiocytic lymphoma cells. P-Selectin/Fc Chimera, immobilized at 10 μg/mL, will induce greater than 50% adhesion on U937 cells (100 μL/well at 1 x 10^6 cells/mL).

Optimal dilutions should be determined by each laboratory for each application.

Endotoxin Level
<0.01 EU per 1 μg of the protein by the LAL method.

Purity
>95%, by SDS-PAGE under reducing conditions and visualized by silver stain.

Formulation
Lyophilized from a 0.2 μm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution
Reconstitute at 100 μg/mL in sterile PBS.

Shipping
The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage
Use a manual defrost freezer and avoid repeated freeze-thaw cycles.
- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Human P-Selectin (GMP-140, LECAM-3, PADGEM, CD62P), a member of the Selectin family, is a cell surface glycoprotein expressed by activated platelets and endothelial cells. P-Selectin is translocated to the cell surface within minutes, from alpha granules of platelets or Weibel-Palade bodies of endothelial cells, following stimulation with thrombin, histamine, PMA or peroxides. P-Selectin binds to a 106 kDa protein present on myeloid cells, neutrophils, monocytes and lymphocytes, termed PSGL-1 (P-Selectin glycoprotein ligand-1).

P-Selectin plays a role in the adhesion of leukocytes and neutrophils to the endothelium. Acting in cooperation with L-Selectin, P-Selectin mediates the initial interaction of circulating leukocytes with endothelial cells that produces a characteristic 'rolling' of the leukocytes on the endothelium. This initial interaction is followed by a stronger interaction involving E-Selectin, and later ICAM-1 and VCAM-1, that leads eventually to extravasation of the white blood cell through the blood vessel wall into the extracellular matrix tissue.

Human P-Selectin cDNA encodes an 830 amino acid (aa) residue type I transmembrane protein with a 41 aa signal peptide, a 730 aa extracellular domain, a transmembrane domain and a short (35 aa) cytoplasmic domain. The extracellular domain has an NH2-terminal C-type lectin domain and an EGF-like domain followed by a series of complement factor A repeat homology domains. The extracellular domains of human and mouse P-Selectin share approximately 73% sequence homology.

References: