

Datasheet for ABIN411351

P-Selectin ELISA Kit



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Overview

Quantity:	96 tests
Target:	P-Selectin (SELP)
Binding Specificity:	AA 42-771
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	62.5-4000 pg/mL
Minimum Detection Limit:	62.5 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human P-Selectin
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA), Plasma (citrate)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: NSO Immunogen sequence: W42-A771
Specificity:	Expression system for standard: NSO Immunogen sequence: W42-A771
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity:	<5pg/mL
Material not included:	Microplate reader in standard size. Automated plate washer. Adjustable pipettes and pipette tips. Multichannel pipettes are recommended in the condition of large amount of samples in the detection. Clean tubes and Eppendorf tubes. Washing buffer (neutral PBS or TBS). Preparation of 0.01M TBS: Add 1.2g Tris, 8.5g NaCl

Target Details

Target:	P-Selectin (SELP)
Alternative Name:	SELP (SELP Products)
Background:	<p>Protein Function: Ca(2+)-dependent receptor for myeloid cells that binds to carbohydrates on neutrophils and monocytes. Mediates the interaction of activated endothelial cells or platelets with leukocytes. The ligand recognized is sialyl-Lewis X. Mediates rapid rolling of leukocyte rolling over vascular surfaces during the initial steps in inflammation through interaction with PSGL1. .</p> <p>Background: P-selectin, also called GMP-140, CD62, or selectin P, is a 140-kD adhesion molecule, expressed at the surface of activated cells, that mediates the interaction of activated endothelial cells or platelets with leukocytes. It is stored in secretory granules and expressed at the plasma membrane after cell activation. It is known to play an important role in atherosclerosis. The major ligand for P-selectin on leukocytes is P-selectin glycoprotein ligand-1(PSGL-1). The standard product used in this kit is recombinant human P-Selectin, excluding intercellular P-Selectin and transmembrane domain. It has 730 amino acids sequence with the molecular mass of 80 KDa.</p> <p>Synonyms: P-selectin,CD62 antigen-like family member P,Granule membrane protein 140,GMP-140,Leukocyte-endothelial cell adhesion molecule 3,LECAM3,Platelet activation dependent granule-external membrane protein,PADGEM,CD62P,SELP,GMRP, GRMP,</p> <p>Full Gene Name: P-selectin</p> <p>Cellular Localisation: Membrane, Single-pass type I membrane protein.</p>
Gene ID:	6403
UniProt:	P16109

Application Details

Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well assay was recommended for both standard and sample testing.
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Application Details

Comment:	<p>Sequence similarities: Belongs to the selectin/LECAM family.</p> <p>Tissue Specificity: Stored in the alpha-granules of platelets and Weibel-Palade bodies of endothelial cells. Upon cell activation by agonists, P-selectin is transported rapidly to the cell surface.</p>
Plate:	Pre-coated
Protocol:	human P-Selectin ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for P-Selectin has been precoated onto 96-well plates. Standards(NSO, W42-A771) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for P-Selectin is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate TMB was used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the human P-Selectin amount of sample captured in plate.
Assay Procedure:	<p>Aliquot 0.1 mL per well of the 4000pg/mL, 2000pg/mL,1000pg/mL, 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL human P-Selectin standard solutions into the precoated 96-well plate. Add 0.1 mL of the sample diluent buffer into the control well (Zero well). Add 0.1 mL of each properly diluted sample of human cell culture supernates, serum or plasma(heparin, EDTA, citrate) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human P-Selectin standard solution and each sample be measured in duplicate.</p>
Assay Precision:	<ul style="list-style-type: none">• Sample 1: n=16, Mean(pg/ml): 675, Standard deviation: 29.7, CV(%): 4.4• Sample 2: n=16, Mean(pg/ml): 1105, Standard deviation: 64.09, CV(%): 5.8• Sample 3: n=16, Mean(pg/ml): 2622, Standard deviation: 146.8, CV(%): 5.6,• Sample 1: n=24, Mean(pg/ml): 858, Standard deviation: 22.2, CV(%): 6.2• Sample 2: n=24, Mean(pg/ml): 1657, Standard deviation: 64.52, CV(%): 6.7• Sample 3: n=24, Mean(pg/ml): 3183, Standard deviation: 144.8, CV(%): 7.3
Restrictions:	For Research Use only

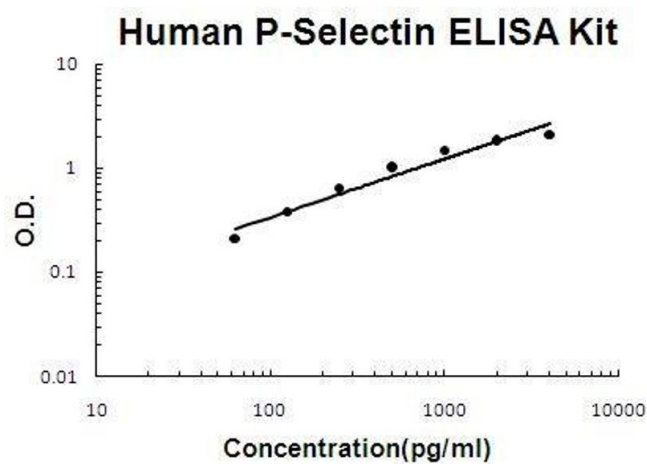
Handling

Handling Advice:	Avoid multiple freeze-thaw cycles.
Storage:	-20 °C,4 °C
Storage Comment:	Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles

Expiry Date: 12 months

Publications

- Product cited in: Rubiś, Wiśniowska-Smiałek, Wypasek, Rudnicka-Sosin, Hlawaty, Leśniak-Sobelga, Kostkiewicz, Podolec et al.: "12-month patterns of serum markers of collagen synthesis, transforming growth factor and connective tissue growth factor are similar in new-onset and chronic dilated cardiomyopathy in patients both ..." in: **Cytokine**, Vol. 96, pp. 217-227, (2018) ([PubMed](#)).
- Xie, Liao, Yu, Guo, Yang, Ge, Chen, Chen: "Endothelial-to-mesenchymal transition in human idiopathic dilated cardiomyopathy." in: **Molecular medicine reports**, Vol. 17, Issue 1, pp. 961-969, (2018) ([PubMed](#)).
- Rubiś, Wiśniowska-Smiałek, Dziewięcka, Rudnicka-Sosin, Kozanecki, Podolec: "Prognostic value of fibrosis-related markers in dilated cardiomyopathy: A link between osteopontin and cardiovascular events." in: **Advances in medical sciences**, Vol. 63, Issue 1, pp. 160-166, (2018) ([PubMed](#)).
- Rubiś, Wiśniowska-Smiałek, Wypasek, Biernacka-Fijałkowska, Rudnicka-Sosin, Dziewiecka, Faltyn, Khachatryan, Karabinowska, Kozanecki, Tomkiewicz-Pająk, Podolec: "Fibrosis of extracellular matrix is related to the duration of the disease but is unrelated to the dynamics of collagen metabolism in dilated cardiomyopathy." in: **Inflammation research : official journal of the European Histamine Research Society ... [et al.]**, Vol. 65, Issue 12, pp. 941-949, (2016) ([PubMed](#)).
- Rubiś, Wiśniowska-Smiałek, Biernacka-Fijałkowska, Rudnicka-Sosin, Wypasek, Kozanecki, Dziewięcka, Faltyn, Karabinowska, Khachatryan, Hlawaty, Leśniak-Sobelga, Kostkiewicz, Płazak, Podolec: "Left ventricular reverse remodeling is not related to biopsy-detected extracellular matrix fibrosis and serum markers of fibrosis in dilated cardiomyopathy, regardless of the definition used for LVRR." in: **Heart and vessels**, Vol. 32, Issue 6, pp. 714-725, (2016) ([PubMed](#)).



ELISA

Image 1. Human P-Selectin PicoKine ELISA Kit standard curve