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# **P-Selectin ELISA Kit**



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#### Overview

Quantity:	96 tests
Target:	P-Selectin (SELP)
Binding Specificity:	AA 42-709
Reactivity:	Mouse
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 Mouse P-Selectin
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (citrate)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: NSO
	Immunogen sequence: W42-A709
Specificity:	Expression system for standard: NSO
	Immunogen sequence: W42-A709
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:	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
	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 mouse P-Selectin, excluding
	intercellular P-Selectin and transmembrane domain. It has 42-709 amino acids sequence with
	the molecular mass of 99.1KDa. As a result of glycosylation, the molecular mass of 190-
	200KDa is revealed by SDS-PAGE.
	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,Grmp,
	Full Gene Name: P-selectin
	Cellular Localisation: Membrane, Single-pass type I membrane protein.
Gene ID:	20344
UniProt:	Q01102
Application Details	
Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well

# **Application Details**

7 Application Details	
	assay was recommended for both standard and sample testing.
Comment:	Sequence similarities: Belongs to the selectin/LECAM family.
	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.
Plate:	Pre-coated
Protocol:	mouse P-Selectin ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent
	assay technology. A monoclonal antibody from rat specific for P-Selectin has been precoated
	onto 96-well plates. Standards(NSO, W42-A709) 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 mouse P-Selectin amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 4000pg/mL, 2000pg/mL, 1000pg/mL, 500pg/mL, 250pg/mL,
	125pg/mL, 62.5pg/mL mouse 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 mouse cell culture supernates, serum or plasma(citrate) to each
	empty well. See "Sample Dilution Guideline" above for details. It is recommended that each
	mouse P-Selectin standard solution and each sample be measured in duplicate.
Assay Precision:	Sample 1: n=16, Mean(pg/ml): 325, Standard deviation: 14, CV(%): 4.3
	Sample 2: n=16, Mean(pg/ml): 874, Standard deviation: 43.7, CV(%): 5
	• Sample 3: n=16, Mean(pg/ml): 1886, Standard deviation: 71.7, CV(%): 3.8,
	<ul> <li>Sample 1: n=24, Mean(pg/ml): 417, Standard deviation: 27.11, CV(%): 6.5</li> <li>Sample 2: n=24, Mean(pg/ml): 1029, Standard deviation: 63.8, CV(%): 6.2</li> </ul>
	Sample 3: n=24, Mean(pg/ml): 2020, Standard deviation: 94.94, CV(%): 4.7
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**

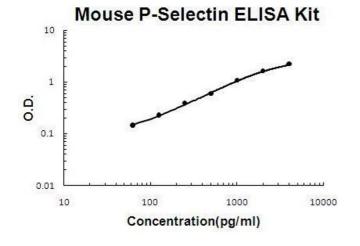
Product cited in:

Ma, Liu, Yu, He, Li, Ma, Zhang, Xu, Ping, Li, Sun, Li: "Triglyceride is independently correlated with insulin resistance and islet beta cell function: a study in population with different glucose and lipid metabolism states." in: **Lipids in health and disease**, Vol. 19, Issue 1, pp. 121, (2020) (PubMed).

Ogłodek: "The role of PON-1, GR, IL-18, and OxLDL in depression with and without posttraumatic stress disorder." in: **Pharmacological reports: PR**, Vol. 69, Issue 5, pp. 837-845, (2018) (PubMed).

Zhou, Zhu, Cui, Feng, Zhao, He, Ping, Li, Li: "Influence of diet on leukocyte telomere length, markers of inflammation and oxidative stress in individuals with varied glucose tolerance: a Chinese population study." in: **Nutrition journal**, Vol. 15, pp. 39, (2016) (PubMed).

## Validation report #102066 for ELISA (ELISA)



#### **ELISA**

**Image 1.** Mouse P-Selectin PicoKine ELISA Kit standard curve