

Product datasheet

Human P-Selectin ELISA Kit (CD62P) ab272202

Recombinant **SimpleStep ELISA**

[6 Images](#)

Overview

Product name Human P-Selectin ELISA Kit (CD62P)

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Serum	8			2.5%

Inter-assay

Sample	n	Mean	SD	CV%
Serum	4			2.7%

Sample type Serum, Cell culture media, EDTA Plasma

Assay type Sandwich (quantitative)

Sensitivity 89 pg/ml

Range 100 pg/ml - 6400 pg/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Serum	116	114% - 121%
Cell culture media	87	81% - 91%
EDTA Plasma	98	87% - 111%

Assay time 1h 30m

Assay duration One step assay

Species reactivity **Reacts with:** Human

Product overview

Human P-Selectin ELISA kit ([ab272200](#)) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of P-Selectin protein in serum, plasma and cell culture supernatant.

It uses our proprietary SimpleStep ELISA® technology. Quantitate Human P-Selectin with 89 pg/mL sensitivity.

SimpleStep ELISA® technology employs capture antibodies conjugated to an affinity tag that is recognized by the monoclonal antibody used to coat our SimpleStep ELISA® plates. This approach to sandwich ELISA allows the formation of the antibody-analyte sandwich complex in a single step, significantly reducing assay time. See the SimpleStep ELISA® protocol summary in the image section for further details. Our SimpleStep ELISA® technology provides several benefits:

- Single-wash protocol reduces assay time to 90 minutes or less
- High sensitivity, specificity and reproducibility from superior antibodies
- Fully validated in biological samples
- 96-wells plate breakable into 12 x 8 wells strips

A 384-well SimpleStep ELISA® microplate ([ab203359](#)) is available to use as an alternative to the 96-well microplate provided with SimpleStep ELISA® kits.

Notes

P-selectin, also known as CD62, Granule membrane protein 140, Leukocyte-endothelial cell adhesion molecule 3, or platelet activation dependent granule-external membrane protein, is a cell adhesion molecule (CAM) encoded by the SELP gene. P-selectin is Ca²⁺ dependent cell-surface glycoprotein that functions in the migration of lymphocytes into tissues during inflammation. P-selectin expressed by megakaryocytes and endothelial cells, where it is stored in Weibel-Palade bodies and alpha-granules. In the presence of agonists such as thrombin, P-selectin is translocated to the plasma membrane from granules. P-selectin expression is also induced by inflammatory agents such as; TNF- α , LPS, and IL-4. The ligand for P-selectin is P-Selectin glycoprotein ligand-1 (PSGL-1), which is primarily expressed on all leukocytes.

Platform

Pre-coated microplate (12 x 8 well strips)

Properties

Storage instructions

Store at +4°C. Please refer to protocols.

Components	1 x 96 tests
10X Human P-Selectin (CD62P) Capture Antibody	1 x 600 μ l
10X Human P-Selectin (CD62P) Detector Antibody	1 x 600 μ l
10X Wash Buffer PT (ab206977)	1 x 20ml
Antibody Diluent CPI - HAMA Blocker (ab193969)	1 x 6ml
Human P-Selectin (CD62P) Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit

Components	1 x 96 tests
Sample Diluent NS (ab193972)	1 x 50ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

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.

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.

Involvement in disease

Defects in SELP may be a cause of susceptibility to ischemic stroke (ISCHSTR) [MIM:601367]; also known as cerebrovascular accident or cerebral infarction. A stroke is an acute neurologic event leading to death of neural tissue of the brain and resulting in loss of motor, sensory and/or cognitive function. Ischemic strokes, resulting from vascular occlusion, is considered to be a highly complex disease consisting of a group of heterogeneous disorders with multiple genetic and environmental risk factors.

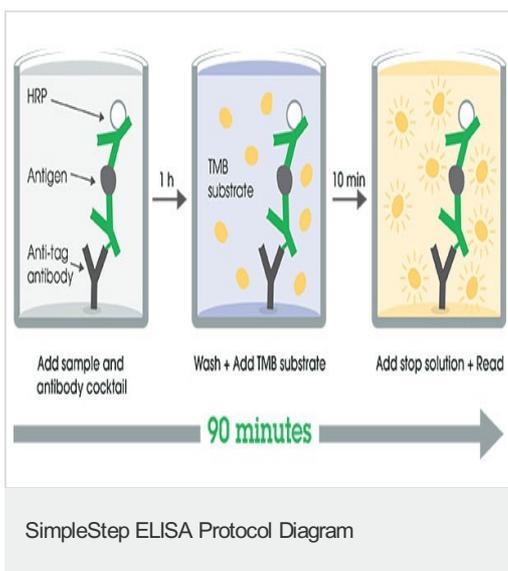
Sequence similarities

Belongs to the selectin/LECAM family.
 Contains 1 C-type lectin domain.
 Contains 1 EGF-like domain.
 Contains 9 Sushi (CCP/SCR) domains.

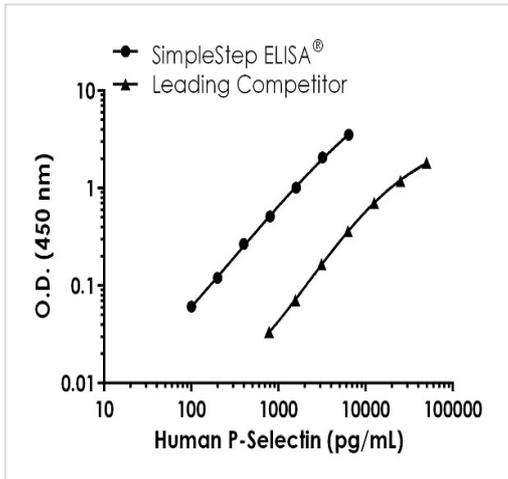
Cellular localization

Membrane.

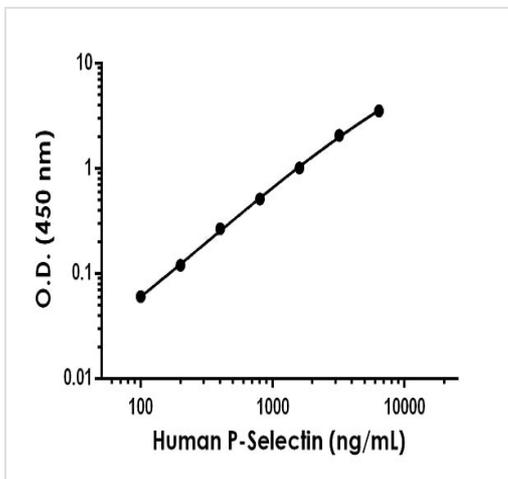
Images



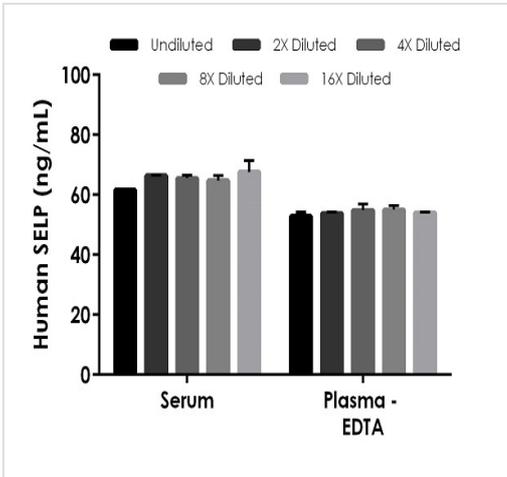
SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



Human P-Selectin competitor curve comparison

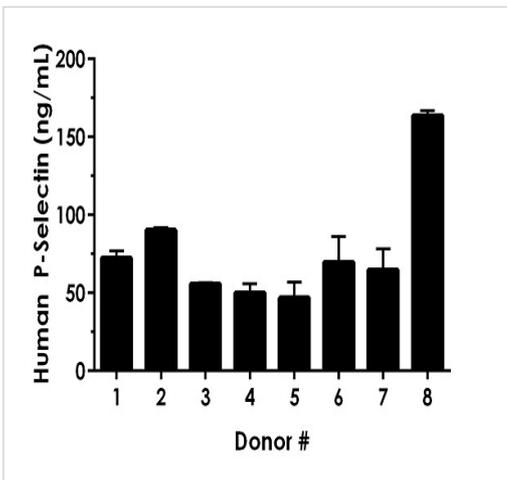


Example of human P-Selectin standard curve in Sample Diluent NS.



Interpolated concentrations of native P-Selectin in human serum and plasma (EDTA).

The concentrations of P-Selectin were measured in duplicates, interpolated from the target standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 10% and plasma (EDTA) 10%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean target concentration was determined to be 65.6 ng/mL in serum and 54.3 ng/mL in plasma (EDTA).



Serum from eight individual healthy P-Selectin gender donors was measured in duplicate.

Interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean P-Selectin concentration was determined to be 76.7 ng/mL with a range of 50.1 – 163.8 ng/mL.

Powered by recombinant antibodies

- Research with confidence**
Consistent and reproducible results
- Long-term and scalable supply**
Recombinant technology
- Success from the first experiment**
Confirmed specificity
- Ethical standards compliant**
Animal-free production

Sandwich ELISA - Human P-Selectin ELISA Kit (CD62P) (ab272202)

To learn more about the advantages of recombinant antibodies see [here](#).

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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