Datasheet for ABIN411350

Selectin E/CD62e ELISA Kit

1 Image | 8 Publications

Go to Product page

Overview

Quantity:	96 tests
Target:	Selectin E/CD62e (SELE)
Binding Specificity:	AA 22-556
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	125-8000 pg/mL
Minimum Detection Limit:	125 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human sE-Selectin
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (citrate)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: NSO Immunogen sequence: W22-P556
Specificity:	Expression system for standard: NSO Immunogen sequence: W22-P556
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity:	<4pg/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:	Selectin E/CD62e (SELE)
Alternative Name:	SELE (SELE Products)
Background:	Protein Function: Cell-surface glycoprotein having a role in immunoadhesion. Mediates in the adhesion of blood neutrophils in cytokine-activated endothelium through interaction with PSGL1/SELPLG. May have a role in capillary morphogenesis. . Background: E-selectin, also called endothelial-leukocyte adhesion molecule-1(ELAM-1), is a cell surface glycoprotein expressed by cytokine-activated endothelium that mediates the adhesion of blood neutrophils. An increased expression of E-selectin has been observed in the arterial endothelium interacting with lymphocytes and macrophages in human atherosclerotic lesions. E-selectin plays a critical role in mediating tissue-specific homing of T cells into skin, and of primitive hematopoietic progenitor cells(HPCs) into bone marrow(BM). A structurally and functionally related group of genes, lymph node homing receptor(LHR), granule membrane protein 140(GMP-140), and endothelial leukocyte adhesion molecule 1(ELAM-1) are shown to constitute a gene cluster on mouse and human chromosome 1. The standard product used in this kit is recombinant human E-Selectin, excluding intercellular E-Selectin and transmembrane domain. It consists of totally 535 amino acids with the molecular mass of 58.6KDa. Synonyms: E-selectin,CD62 antigen-like family member E,Endothelial leukocyte adhesion molecule 1,ELAM-1,Leukocyte-endothelial cell adhesion molecule 2,LECAM2,CD62E,SELE,ELAM1, Full Gene Name: E-selectin Cellular Localisation: Cell membrane, Single-pass type I membrane protein.
Gene ID:	6401
UniProt:	P16581
Pathways:	Thromboxane A2 Receptor Signaling

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.
Comment:	Sequence similarities: Belongs to the selectin/LECAM family.
Plate:	Pre-coated
Protocol:	human sE-Selectin ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for sE-Selectin has been precoated onto 96-well plates. Standards(NSO, W22-P556) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for sE-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 sE-Selectin amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 8000pg/mL, 4000pg/mL, 2000pg/mL, 1000pg/mL, 500pg/mL, 250pg/mL, 125pg/mL human sE-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, citrate) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human sE-Selectin standard solution and each sample be measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(ng/ml): 1.7, Standard deviation: 0.10, CV(%): 5.9 • Sample 2: n=16, Mean(ng/ml): 3.1, Standard deviation: 0.16, CV(%): 5.2 • Sample 3: n=16, Mean(ng/ml): 4.5, Standard deviation: 0.31, CV(%): 6.9, • Sample 1: n=24, Mean(ng/ml): 1.6, Standard deviation: 0.13, CV(%): 8.1 • Sample 2: n=24, Mean(ng/ml): 3.2, Standard deviation: 0.21, CV(%): 6.6 • Sample 3: n=24, Mean(ng/ml): 4.5, Standard deviation: 0.33, 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:

Dehghan, Sabri, Javanmard, Ahmadi, Mansourian: "Neurally mediated syncope: Is it really an endothelial dysfunction?" in: **Anatolian journal of cardiology**, Vol. 16, Issue 9, pp. 701-6, (2018) (PubMed).

Ahluwalia, Misto, Vozzi, Magliaro, Mattei, Marescotti, Avogaro, Iori: "Systemic and vascular inflammation in an in-vitro model of central obesity." in: **PLoS ONE**, Vol. 13, Issue 2, pp. e0192824, (2018) (PubMed).

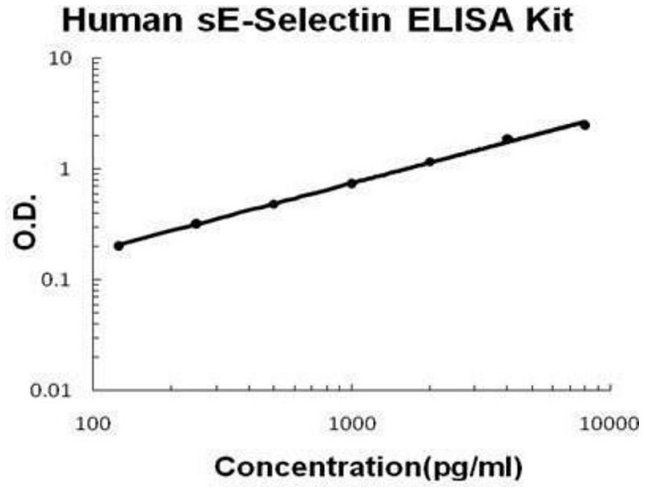
Park, Willoughby, Song, Leutholtz, Koh: "Exercise-induced changes in stress hormones and cell adhesion molecules in obese men." in: **Journal of inflammation research**, Vol. 11, pp. 69-75, (2018) (PubMed).

Majidinia, Rasmi, Khadem Ansari, Seyed-Mohammadzad, Saboory, Shirpoor: "Metoprolol Improves Endothelial Function in Patients with Cardiac Syndrome X." in: **Iranian journal of pharmaceutical research : IJPR**, Vol. 15, Issue 3, pp. 561-566, (2016) (PubMed).

Bilgic, Yilmaz, Bozkurt, Celik, Bilgic, Gurel, Kirbas, Bavbek, Akcay: "Relationship of late arteriovenous fistula stenosis with soluble E-selectin and soluble EPCR in chronic hemodialysis patients with arteriovenous fistula." in: **Clinical and experimental nephrology**, Vol. 19, Issue 1, pp. 133-9, (2015) (PubMed).

There are more publications referencing this product on: Product page

Images



ELISA

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