

Human P-Selectin ELISA Kit

Catalog No. GWB-ZZD034

Size 96T

Range 62.5pg/ml-4000pg/ml

Sensitivity < 5 pg/ml

Specificity

No detectable cross-reactivity with any other cytokine.

Storage

Store at 4°C for frequent use, at -20°C for infrequent use.

Avoid multiple freeze-thaw cycles (Shipped with wet ice.)

Expiration

Four months at 4°C and eight months at -20°C.

Application

For quantitative detection of human P-Selectin in sera, plasma, body fluids, tissue lysates or cell culture supernates.

Principle

GenWay's human P-Selectin ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. Human P-Selectin specific-specific polyclonal antibodies were precoated onto 96-well plates. The human specific detection polyclonal antibodies were biotinylated. The test samples and biotinylated detection antibodies were added to the wells 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.

Kit Components

1. Lyophilized recombinant human P-Selectin standard: 10ng/tube×2.
2. One 96-well plate precoated with anti- human P-Selectin antibody.
3. Sample diluent buffer: 30 ml
4. Biotinylated anti- human P-Selectin antibody : 130µl, dilution 1:100.
5. Antibody diluent buffer: 12ml.
6. Avidin-Biotin-Peroxidase Complex (ABC) : 130µl, dilution 1:100.
7. ABC diluent buffer: 12ml.
8. TMB color developing agent: 10ml.
9. TMB stop solution: 10ml.

Material Required But Not Provided

1. Microplate reader in standard size.
2. Automated plate washer.
3. Adjustable pipettes and pipette tips. Multichannel pipettes are recommended in the condition of large amount of samples in the detection.
4. Clean tubes and Eppendorf tubes.
5. Washing buffer (neutral PBS or TBS).

Preparation of 0.01M **TBS**: Add 1.2g Tris, 8.5g NaCl; 450µl of purified acetic acid or 700µl of concentrated hydrochloric acid to 1000ml H₂O and adjust pH to 7.2-7.6. Finally, adjust the total volume to 1L.

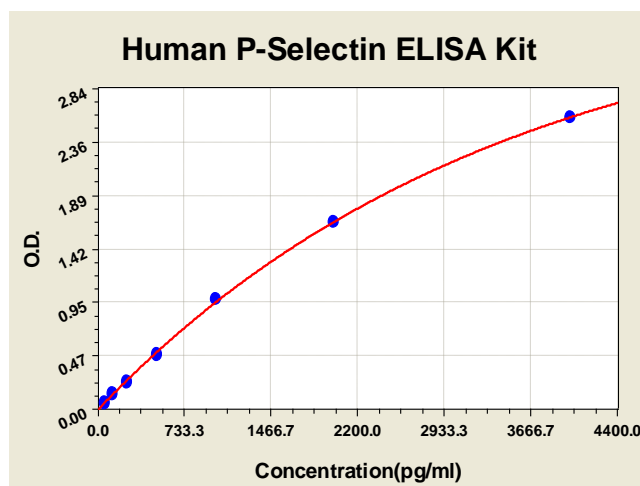
Preparation of 0.01 M **PBS**: Add 8.5g sodium chloride, 1.4g Na₂HPO₄ and 0.2g NaH₂PO₄ to 1000ml distilled water and adjust pH to 7.2-7.6. Finally, adjust the total volume to 1L.

Product Information Sheet

Notice for Application of Kit

1. Before using Kit, spin tubes and bring down all components to bottom of tube.
2. Duplicate well assay was recommended for both standard and sample testing.
3. Don't let 96-well plate dry, dry plate will inactivate active components on plate.
4. In order to avoid marginal effect of plate incubation due to temperature difference (reaction may be stronger in the marginal wells), it is suggested that the diluted ABC and TMB solution will be pre-warmed in 37°C for 30 min before using.

Human P-Selectin ELISA Kit-1X96 Well Plate Image



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.¹ It is stored in secretory granules and expressed at the plasma membrane after cell activation.² It is known to play an important role in atherosclerosis.³ The major ligand for P-selectin on leukocytes is P-selectin glycoprotein ligand-1 (PSGL-1).⁴ 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.

Reference

1. Herrmann, S.-M.; Ricard, S.; Nicaud, V.; Mallet, C.; Evans, A.; Ruidavets, J.-B.; Arveiler, D.; Luc, G.; Cambien, F. The P-selectin gene is highly polymorphic: reduced frequency of the pro715 allele carriers in patients with myocardial infarction. *Hum. Molec. Genet.* 7: 1277-1284, 1998.
2. Florian, V.; Schluter, T.; Bohnensack, R. A new member of the sorting nexin family interacts with the C-terminus of P-selectin. *Biochem. Biophys. Res. Commun.* 281: 1045-1050, 2001.
3. Burger, P. C.; Wagner, D. D. Platelet P-selectin facilitates atherosclerotic lesion development. *Blood* 101: 2661-2666, 2003.
4. Aigner, S.; Sthoeger, ZM.; Fogel, M.; Weber E.; Zarn, J.; Ruppert, M.; Zeller, Y.; Vestweber, D.; Stahel, R.; Sammar, M.; Altevogt, P. CD24, a mucin-type glycoprotein, is a ligand for P-selectin on human tumor cells. *Blood.* 1997 May 1;89(9):3385-95.

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