Product Information Sheet

Human P-Cadherin ELISA Kit

Catalog No. EK0667

Size 96T

Range 62.5pg/ml-4000pg/ml

Sensitivity < 2pg/ml

Specificity

No detectable cross-reactivity with any other cytokine.

Storage

Store at 4℃ for frequent use, at -20℃ for infrequent use.

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

Expiration

Four months at 4℃ and eight months at -20℃.

Application

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

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Principle

Human P-Cadherin ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. Human P-Cadherin 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-Cadherin amount of sample captured in plate.

Kit Components

1. Lyophilized recombinant human P-Cadherin standard: 10ng/tube×2.
2. One 96-well plate precoated with anti- human P-Cadherin antibody.
3. Sample diluent buffer: 30 ml
4. Biotinylated anti- human P-Cadherin 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 H_2O and adjust pH to 7.2-7.6. Finally, adjust the total volume to 1L.

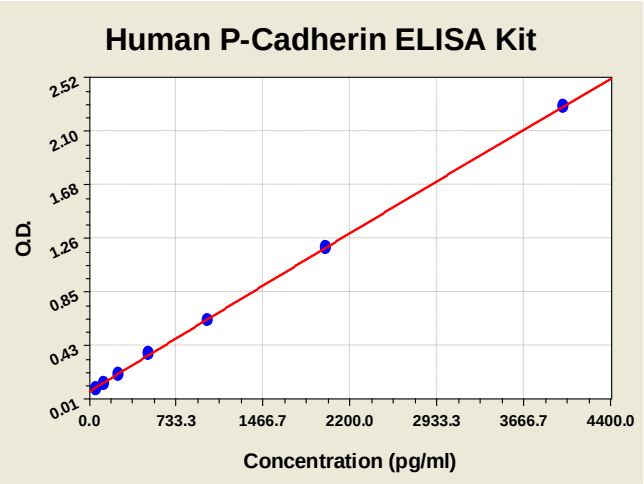
   Preparation of 0.01 M **PBS:** Add 8.5g sodium chloride, 1.4g Na_2HPO_4 and 0.2g NaH_2PO_4 to 1000ml distilled water and adjust pH to 7.2-7.6.

Finally, adjust the total volume to 1L.

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℃ for 30 min before using.

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



Background

Cadherins are calcium-dependent cell-cell adhesion molecules that mediate cell-cell binding in a homophilic manner. They play an important role in the growth and development of cells via the mechanisms of control of tissue architecture and the maintenance of tissue integrity. Cadherin expression is regulated spatially as well as temporally. Cadherins are thought to play an important role in development and maintenance of tissues through selective cell-cell adhesion activity and may be involved also in the invasion and metastasis of malignant tumors. Cadherin regulates dendritic spine morphogenesis. A cadherin gene cluster is mapped to a region of chromosome 5 subject to frequent allelic loss in carcinoma. The standard product used in this kit is recombinant P-Cadherin with the molecular mass of 120-130Kda after glycosylation.

Reference

1. Togashi, H.; Abe, K.; Mizoguchi, A.; Takaoka, K.; Chisaka, O.; Takeichi, M. : Cadherin regulates dendritic spine morphogenesis. Neuron 35: 77-89, 2002.
2. Chalmers, I. J.; Hofler, H.; Atkinson, M. J. : Mapping of a cadherin gene cluster to a region of chromosome 5 subject to frequent allelic loss in carcinoma. Genomics 57: 160-163, 1999.