Product Information Sheet

Human IL-17 ELISA Kit

Catalog No. EK0430

Size 96T

Range 15.6pg/ml-1000pg/ml

Sensitivity < 1pg/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 IL-17 in sera, plasma, body fluids, tissue lysates or cell culture supernates.

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Principle

Human IL-17 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. Human IL-17 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 IL-17 amount of sample captured in plate.

Kit Components

1. Lyophilized recombinant human IL-17 standard: 10ng/tube×2.
2. One 96-well plate precoated with anti- human IL-17 antibody.
3. Sample diluent buffer: 30 ml
4. Biotinylated anti- human IL-17 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 and Automated plate washer.
2. Adjustable pipettes and pipette tips. Multichannel pipettes are recommended in the condition of large amount of samples in the detection.
3. Clean tubes and Eppendorf tubes.
4. 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.

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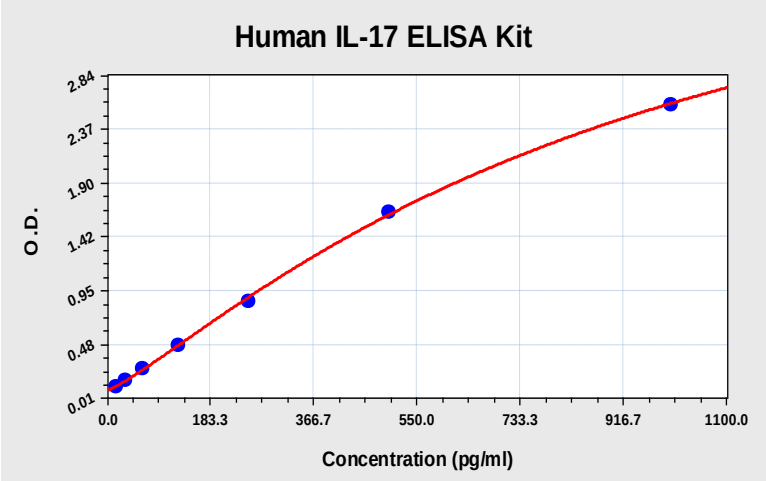
Notice for Application of Kit

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 IL-17 ELISA Kit-1X96 Well Plate Image



Background

IL-17 is an inflammatory cytokine produced primarily by a unique lineage of CD4 T cells that plays critical roles in the pathogenesis of multiple autoimmune diseases. Interleukin-17 is expressed by activated T cells and is 57% identical to the 17- to 26-kD secretory glycoprotein encoded by gene 13 of the herpesvirus saimiri (HVS-13). IL17 induces nuclear factor kappa-B and the expression of IL6, intercellular adhesion molecule-1, granulocyte macrophage colony-stimulating factor,and prostaglandin E2, as well as the maturation of CD34 positive hematopoietic precursors into neutrophils. Anti-IL17 antibodies significantly inhibited osteoclast formation induced by culture media of RA synovial tissues. The standard product used in this kit is recombinant human IL-17, consisting of 136 amino acids with the molecular mass of 16KDa.

Reference

1. Kotake, S.; Udagawa, N.; Takahashi, N.; Matsuzaki, K.; Itoh, K.; Ishiyama, S.; Saito, S.; Inoue, K.; Kamatani, N.; Gillespie, M. T.; Martin, T. J.; Suda, T. : IL-17 in synovial fluids from patients with rheumatoid arthritis is a potent stimulator of osteoclastogenesis. *J. Clin. Invest.* 103: 1345-1352, 1999.
2. Toy, D.; Kugler, D.; Wolfson, M.; Vanden Bos, T.; Gurgel, J.; Derry, J.; Tocker, J.; Peschon, J. : Interleukin 17 signals through a heteromeric receptor complex. *J. Immun.* 177: 36-39, 2006.