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Datasheet for ABIN411306

IL-10 ELISA Kit

1 Image

61 Publications

Overview

Quantity: 96 tests

Target: IL-10 (IL10)

Binding Specificity: AA 19-178

Reactivity: Human

Method Type: Sandwich ELISA

Detection Range: 7.8-500 pg/mL

Minimum Detection Limit: 7.8 pg/mL

Application: ELISA

Product Details

Purpose: Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human IL-10

Brand: PicoKine™

Sample Type: Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA), Plasma (citrate)

Analytical Method: Quantitative

Detection Method: Colorimetric

Immunogen: Expression system for standard: E.coli
Immunogen sequence: S19-N178

Specificity: Expression system for standard: E.coli
Immunogen sequence: S19-N178

Cross-Reactivity (Details): There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity: <0.5pg/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: IL-10 (IL10)

Alternative Name: IL10 ([IL10 Products](#))

Background: Protein Function: Inhibits the synthesis of a number of cytokines, including IFN-gamma, IL-2, IL-3, TNF and GM-CSF produced by activated macrophages and by helper T-cells.

Background: Interleukin-10, also called cytokine synthesis inhibitory factor, is implicated in tumorigenesis, and it has been shown that polymorphisms in its gene promoter correlate with differential amounts of production. IL-10 is an important cytokine with anti-inflammatory, anti-immune, and antifibrotic functions. It is also an important regulatory cytokine whose involvement extends into diverse areas of the human immune system. IL-10 is a recently described natural endogenous immunosuppressive cytokine that has been identified in human, murine, and other organisms. IL-10 significantly affects chemokine biology, because human IL-10 inhibits chemokine production and is a specific chemotactic factor for CD8+ T cells. It suppresses the ability of CD4+ T cells, but not CD8+ T cells, to migrate in response to IL-8. Interleukin-10 gene polymorphisms and interleukin-10 production capability may contribute to the development of skin squamous cell carcinomas after renal transplantation.¹ The interleukin-10 locus contributes to the heritability of psoriasis susceptibility. With regard to sudden infant death, IL-10 is of special interest. This is an immunoregulatory cytokine that plays an important role in the development of infectious disease The mIL-10 gene is mapped to mouse chromosome 1 and the hIL-10 gene is also mapped to human chromosome 1. The standard product used in this kit is recombinant human IL-10, consisting of 160 amino acids with the molecular mass of 18.6KDa.

Synonyms: Interleukin-10,IL-10,Cytokine synthesis inhibitory factor,CSIF,IL10,
Full Gene Name: Interleukin-10
Cellular Localisation: Secreted.

Gene ID: 3586

UniProt: [P22301](#)

Target Details

Pathways: [Cellular Response to Molecule of Bacterial Origin](#), [Regulation of Leukocyte Mediated Immunity](#), [Production of Molecular Mediator of Immune Response](#), [Maintenance of Protein Location](#), [Cancer Immune Checkpoints](#)

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 IL-10 family. Tissue Specificity: Produced by a variety of cell lines, including T-cells, macrophages, mast cells and other cell types.
Plate:	Pre-coated
Protocol:	human IL-10 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for IL-10 has been precoated onto 96-well plates. Standards(E.coli, S19-N178) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for IL-10 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 IL-10 amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL, 31.3pg/mL, 15.6pg/mL, 7.8pg/mL human IL-10 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, EDTA, citrate) to each empty well. See "Sample Dilution Guideline" above for details. We recommend that each human IL-10 standard solution and each sample is measured in duplicate.
Assay Precision:	<ul style="list-style-type: none">• Sample 1: n=16, Mean(pg/ml): 25, Standard deviation: 1.35, CV(%): 5.4• Sample 2: n=16, Mean(pg/ml): 112, Standard deviation: 5.38, CV(%): 4.8• Sample 3: n=16, Mean(pg/ml): 280, Standard deviation: 8.68, CV(%): 3.1,• Sample 1: n=24, Mean(pg/ml): 34, Standard deviation: 2.55, CV(%): 7.5• Sample 2: n=24, Mean(pg/ml): 184, Standard deviation: 14.54, CV(%): 7.9• Sample 3: n=24, Mean(pg/ml): 312, Standard deviation: 20.9, CV(%): 6.7
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

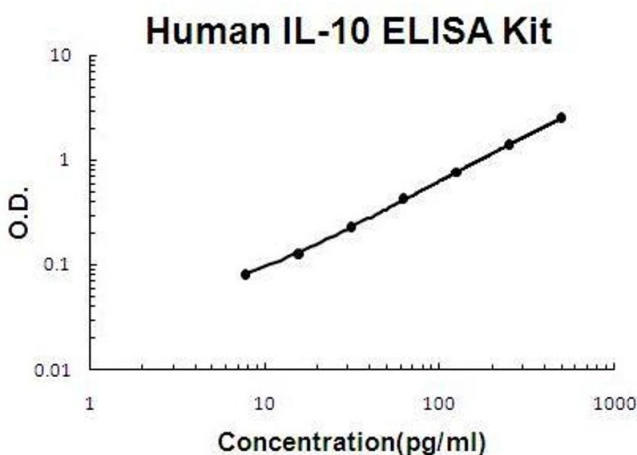
Publications

Product cited in: Fernández, Baldassarro, Sivilia, Giardino, Calzà: "Inflammation severely alters thyroid hormone signaling in the central nervous system during experimental allergic encephalomyelitis in rat: Direct impact on OPCs differentiation failure." in: **Glia**, Vol. 64, Issue 9, pp. 1573-89, (2016) ([PubMed](#)).

Vidart, Wajner, Leite, Manica, Schaan, Larsen, Maia: "N-acetylcysteine administration prevents nonthyroidal illness syndrome in patients with acute myocardial infarction: a randomized clinical trial." in: **The Journal of clinical endocrinology and metabolism**, Vol. 99, Issue 12, pp. 4537-45, (2014) ([PubMed](#)).

There are more publications referencing this product on: [Product page](#)

Images



ELISA

Image 1. Human IL-10 PicoKine ELISA Kit standard curve