Datasheet for ABIN2859272
IL-13 ELISA Kit

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Overview

Quantity:	96 tests
Target:	IL-13 (IL13)
Binding Specificity:	AA 21-132
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	15.6-1000 pg/mL
Minimum Detection Limit:	15.6 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human IL-13
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: E.coli Immunogen sequence: G21-N132
Specificity:	Expression system for standard: E.coli Immunogen sequence: G21-N132
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity:	<10pg/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-13 (IL13)
Alternative Name:	IL13 (IL13 Products)
Background:	Protein Function: Cytokine. Inhibits inflammatory cytokine production. Synergizes with IL2 in regulating interferon-gamma synthesis. May be critical in regulating inflammatory and immune responses. Background: Interleukin 13 (IL-13) is a protein that in humans is encoded by the IL13 gene. IL-13 is cytokine secreted by many cell types, but especially T helper type 2 (Th2) cells which is an important mediator of allergic inflammation and disease. IL-13 induces its effects through a multi-subunit receptor that includes the alpha chain of the IL-4 receptor (IL-4R alpha) and at least one of two known IL-13-specific binding chains. Most of the biological effects of IL-13, like those of IL-4, are linked to a single transcription factor, signal transducer and activator of transcription 6 (STAT6). The IL13 gene is clustered with IL3, IL5, IL4, and CSF2 on 5q. Synonyms: Interleukin-13,IL-13,IL13,NC30, Full Gene Name: Interleukin-13 Cellular Localisation: Secreted.
Gene ID:	3596
UniProt:	P35225
Pathways:	JAK-STAT Signaling, Positive Regulation of Immune Effector Process, Production of Molecular Mediator of Immune Response, Proton Transport

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-4/IL-13 family.
Plate:	Pre-coated

Application Details

Protocol:	human IL-13 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for IL-13 has been precoated onto 96-well plates. Standards(E.coli, G21-N132) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for IL-13 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-13 amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 1000pg/mL, 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL, 31.3pg/mL, 15.6pg/mL human IL-13 standard solutions into the pre-coated 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) to each empty well. See "Sample Dilution Guideline" above for details. We recommend that each human IL-13 standard solution and each sample is measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(pg/ml): 98, Standard deviation: 4.02, CV(%): 4.1 • Sample 2: n=16, Mean(pg/ml): 340, Standard deviation: 10.88, CV(%): 3.2 • Sample 3: n=16, Mean(pg/ml): 497, Standard deviation: 19.38, CV(%): 3.9, • Sample 1: n=24, Mean(pg/ml): 115, Standard deviation: 8.28, CV(%): 7.2 • Sample 2: n=24, Mean(pg/ml): 354, Standard deviation: 19.82, CV(%): 5.6 • Sample 3: n=24, Mean(pg/ml): 512, Standard deviation: 29.7, CV(%): 5.8
Restrictions:	For Research Use only

Handling

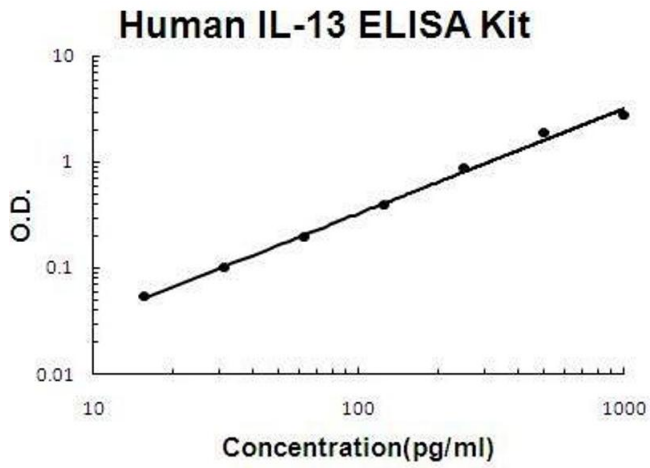|	
Handling Advice:	Avoid multiple freeze-thaw cycles.
Storage:	-20 °C,4 °C
Storage Comment:	Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles
Expiry Date:	12 months

Publications

Product cited in:	Motawi, Mahdy, El-Sawalhi, Ali, El-Telbany: "Serum levels of chemerin, apelin, vaspin, and omentin-1 in obese type 2 diabetic Egyptian patients with coronary artery stenosis." in: **Canadian journal of physiology and pharmacology**, Vol. 96, Issue 1, pp. 38-44, (2018) (PubMed

Publications

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