

Datasheet for ABIN1889298

IL-11 ELISA Kit



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1 Image

Overview

Quantity:	96 tests
Target:	IL-11 (IL11)
Binding Specificity:	AA 22-199
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	31.2-2000 pg/mL
Minimum Detection Limit:	31.2 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human IL-11
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: P22-L199
Specificity:	Expression system for standard: E.coli Immunogen sequence: P22-L199
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-11 (IL11)
Alternative Name:	IL11 (IL11 Products)
Background:	<p>Protein Function: Cytokine that stimulates the proliferation of hematopoietic stem cells and megakaryocyte progenitor cells and induces megakaryocyte maturation resulting in increased platelet production (PubMed:2145578). Also promotes the proliferation of hepatocytes in response to liver damage. Binding to its receptor formed by IL6ST and either IL11RA1 or IL11RA2 activates a signaling cascade that promotes cell proliferation (PubMed:12919066). Signaling leads to the activation of intracellular protein kinases and the phosphorylation of STAT3. .</p> <p>Background: Interleukin 11(IL-11) is a protein that in humans is encoded by the IL11 gene. The protein encoded by this gene is a member of the gp130 family of cytokines. This gene is mapped to 19q13.42. It is a key regulator of multiple events in hematopoiesis, most notably the stimulation of megakaryocyte maturation. IL-11 has been demonstrated to improve platelet recovery after chemotherapy-induced thrombocytopenia, induce acute phase proteins, modulate antigen-antibody responses, participate in the regulation of bone cell proliferation and differentiation and could be use as a therapeutic for osteoporosis. What's more, IL-11 can stimulate the growth of certain lymphocytes and it has functions in many other tissues, including the brain, gut, testis and bone. In transgenic mice, overexpression of the human IL11 gene resulted in the stimulation of bone formation to increase cortical thickness and strength of long bones.</p> <p>Synonyms: Interleukin-11,IL-11,Adipogenesis inhibitory factor ,AGIF ,Oprelvekin,IL11,</p> <p>Full Gene Name: Interleukin-11</p> <p>Cellular Localisation: Secreted.</p>
Gene ID:	3589
UniProt:	P20809
Pathways:	JAK-STAT Signaling, Negative Regulation of Hormone Secretion

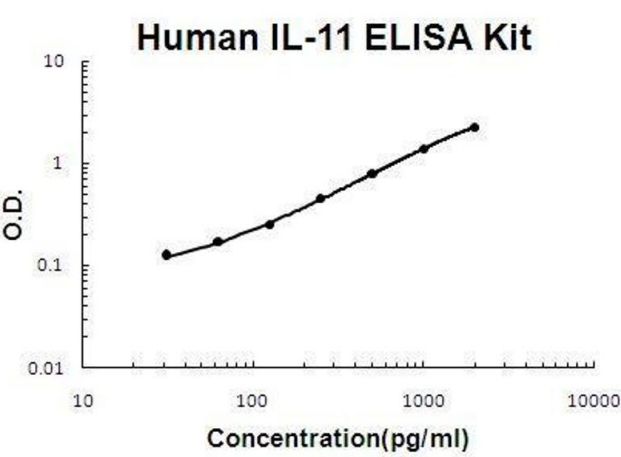
Application Details

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-6 superfamily.
Plate:	Pre-coated
Protocol:	human IL-11 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for IL-11 has been precoated onto 96-well plates. Standards(E.coli, P22-L199) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for IL-11 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-11 amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 2000pg/mL, 1000pg/mL, 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL, 31.2pg/mL human IL-11 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 supernatants, serum or plasma(heparin, EDTA, citrate) to each empty well. See "Sample Dilution Guideline" above for details. We recommend that each human IL-11 standard solution and each sample is measured in duplicate.
Assay Precision:	<ul style="list-style-type: none">• Sample 1: n=16, Mean(pg/ml): 70, Standard deviation: 3.22, CV(%): 4.6• Sample 2: n=16, Mean(pg/ml): 460, Standard deviation: 23.92, CV(%): 5.2• Sample 3: n=16, Mean(pg/ml): 1327, Standard deviation: 71.66, CV(%): 5.4,• Sample 1: n=24, Mean(pg/ml): 93, Standard deviation: 5.487, CV(%): 5.9• Sample 2: n=24, Mean(pg/ml): 554, Standard deviation: 36.01, CV(%): 6.5• Sample 3: n=24, Mean(pg/ml): 1395, Standard deviation: 94.86, CV(%): 6.8

Restrictions:	For Research Use only
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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



ELISA

Image 1. Human IL-11 PicoKine ELISA Kit standard curve