

Datasheet for ABIN411313

IL-15 ELISA Kit



[Go to Product page](#)

1 Image

Overview

Quantity:	96 tests
Target:	IL-15 (IL15)
Binding Specificity:	AA 49-162
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-15
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: N49-S162
Specificity:	Expression system for standard: E.coli Immunogen sequence: N49-S162
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity:	<3pg/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-15 (IL15)
Alternative Name:	IL15 (IL15 Products)
Background:	<p>Protein Function: Cytokine that stimulates the proliferation of T- lymphocytes. Stimulation by IL-15 requires interaction of IL-15 with components of IL-2R, including IL-2R beta and probably IL-2R gamma but not IL-2R alpha.</p> <p>Background: Interleukin(IL)-15 is a cytokine with the ability to stimulate the proliferation activity of Th1 and/or Th2 lymphocytes. IL-15 is a novel cytokine whose effects on T-cell activation and proliferation are similar to those of interleukin-2(IL-2), presumably because IL-15 utilizes the beta and gamma chains of the IL-2 receptor. IL-15 can play a role in the initiation and outcome of acute and chronic rejection. Anti-IL-15 therapy in combination with classic immunosuppression therapy might thus be beneficial in the prevention of acute, and especially chronic, allograft rejection. The human IL15 gene is mapped to human chromosome 4q31 by fluorescence in situ hybridization.¹ The standard product used in this kit is recombinant human IL-15, consisting of 114 amino acids with the molecular mass of 12.9KDa.</p> <p>Synonyms: Interleukin-15,IL-15,IL15,</p> <p>Full Gene Name: Interleukin-15</p> <p>Cellular Localisation: Isoform IL15-S48AA: Secreted.</p>
Gene ID:	3600
UniProt:	P40933
Pathways:	JAK-STAT Signaling , Glycosaminoglycan Metabolic Process

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-15/IL-21 family.

Application Details

Tissue Specificity: Most abundant in placenta and skeletal muscle. It is also detected in the heart, lung, liver and kidney. IL15- S21AA is preferentially expressed in tissues such as testis and thymus.

Plate: Pre-coated

Protocol: human IL-15 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for IL-15 has been precoated onto 96-well plates. Standards(E.coli, N49-S162) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for IL-15 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-15 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-15 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-15 standard solution and each sample is measured in duplicate.

Assay Precision:

- Sample 1: n=16, Mean(pg/ml): 125, Standard deviation: 5.25, CV(%): 4.2
- Sample 2: n=16, Mean(pg/ml): 372, Standard deviation: 18.23, CV(%): 4.9
- Sample 3: n=16, Mean(pg/ml): 603, Standard deviation: 31.36, CV(%): 5.2,
- Sample 1: n=24, Mean(pg/ml): 170, Standard deviation: 9.01, CV(%): 5.3
- Sample 2: n=24, Mean(pg/ml): 418, Standard deviation: 27.17, CV(%): 6.5
- Sample 3: n=24, Mean(pg/ml): 679, Standard deviation: 48.21, CV(%): 7.1

Restrictions: For Research Use only

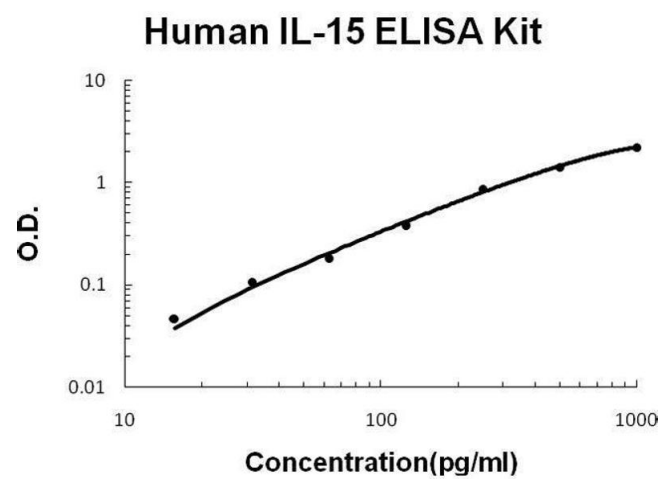
Handling

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



ELISA

Image 1. Human IL-15 PicoKine ELISA Kit standard curve