

Datasheet for ABIN921063

IL-5 ELISA Kit[Go to Product page](#)**1** Image**5** Publications

Overview

Quantity:	96 tests
Target:	IL-5 (IL5)
Binding Specificity:	AA 20-134
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-5
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA), Urine
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: sf21 Immunogen sequence: I20-S134
Specificity:	Expression system for standard: sf21 Immunogen sequence: I20-S134
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity:	<2pg/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-5 (IL5)
Alternative Name:	IL5 (IL5 Products)
Background:	<p>Protein Function: Factor that induces terminal differentiation of late- developing B-cells to immunoglobulin secreting cells.</p> <p>Background: Interleukin-5(IL-5) is also known as eosinophil differentiation factor(EDF). IL-5 is a potential candidate gene in the pathogenesis of asthma, as it is the main cytokine controlling eosinophil activity and eosinophils are pivotal in the development of airway inflammation. The predicted amino acid sequence of 134 amino acids is identical with that recently reported for human interleukin-5 but shows no significant homology with other known hemopoietic growth regulators. IL-5 is a lineage-specific hematopoietic growth factor that stimulates the production of eosinophils and eosinophil colonies from normal human bone marrow cells. IL-5 gene to human chromosome 5 at bands q23-31. Human and mouse of IL-5 share 70 % amino acid sequence homology.</p> <p>Synonyms: Interleukin-5,IL-5,B-cell differentiation factor I,Eosinophil differentiation factor,T-cell replacing factor,TRF,IL5,</p> <p>Full Gene Name: Interleukin-5</p> <p>Cellular Localisation: Secreted.</p>
Gene ID:	3567
UniProt:	P05113
Pathways:	JAK-STAT Signaling , Positive Regulation of Peptide Hormone Secretion , Production of Molecular Mediator of Immune Response , Feeding Behaviour

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.
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Application Details

Comment:	Sequence similarities: Belongs to the IL-5 family.
Plate:	Pre-coated
Protocol:	human IL-5 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for IL-5 has been precoated onto 96-well plates. Standards(sf21, I20-S134) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for IL-5 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-5 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-5 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, plasma(heparin, EDTA) or urine to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human IL-5 standard solution and each sample be measured in duplicate.
Assay Precision:	<ul style="list-style-type: none">• Sample 1: n=16, Mean(pg/ml): 44.6, Standard deviation: 2.32, CV(%): 5.2• Sample 2: n=16, Mean(pg/ml): 168, Standard deviation: 6.89, CV(%): 4.1• Sample 3: n=16, Mean(pg/ml): 338, Standard deviation: 14.87, CV(%): 4.4,• Sample 1: n=24, Mean(pg/ml): 43.8, Standard deviation: 2.63, CV(%): 6• Sample 2: n=24, Mean(pg/ml): 188, Standard deviation: 10.34, CV(%): 5.5• Sample 3: n=24, Mean(pg/ml): 329, Standard deviation: 21.06, CV(%): 6.4
Restrictions:	For Research Use only

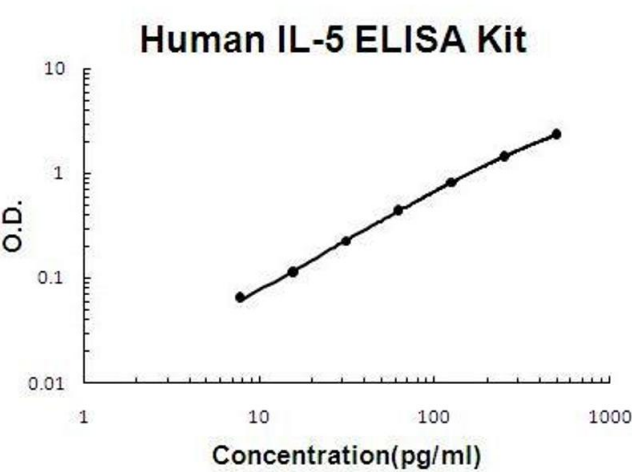
Handling

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:	Romano, Chiaro, Lucarelli, Santarelli, Cucchiara, Guadagnini, Miele, Di Nardo: "Mucosal cytokine
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profiles in paediatric eosinophilic oesophagitis: A case-control study." in: **Digestive and liver disease : official journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver**, (2014) ([PubMed](#)).



ELISA

Image 1. Human IL-5 PicoKine ELISA Kit standard curve