

Datasheet for ABIN411312
IL-13 ELISA Kit[Go to Product page](#)

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Overview

Quantity:	96 tests
Target:	IL-13 (IL13)
Binding Specificity:	AA 26-131
Reactivity:	Mouse
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 Mouse 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: S26-F131
Specificity:	Expression system for standard: E.coli Immunogen sequence: S26-F131
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-13 (IL13)
Alternative Name:	IL13 (IL13 Products)
Background:	<p>Protein Function: Cytokine. Inhibits inflammatory cytokine production. Synergizes with IL2 in regulating interferon-gamma synthesis. May be critical in regulating inflammatory and immune responses (By similarity). .</p> <p>Background: Interleukin(IL)-13 is a major inducer of fibrosis in many chronic infectious and autoimmune diseases. Recombinant IL-13 protein inhibits inflammatory cytokine production induced by lipopolysaccharide in human peripheral blood monocytes. Moreover, it synergizes with IL-13 in regulating interferon-gamma synthesis in large granular lymphocytes. Interleukin-13 may be critical in regulating inflammatory and immune responses. IL-13 and IL-4 are two cytokines produced by T helper type 2 cells, mast cells, and basophils. In addition to their physiological roles, these cytokines are also implicated in pathological conditions such as asthma and allergy. The genes encoding human IL-4 and IL-13 are located on segment q23-31 of chromosome 5.4 Recombinant mouse IL-13 is a mixture of Ser26-Phe131 amino acids with the molecular mass of 11.5KDa.</p> <p>Synonyms: Interleukin-13,IL-13,T-cell activation protein P600,IL13,IL-13,</p> <p>Full Gene Name: Interleukin-13</p> <p>Cellular Localisation: Secreted.</p>
Gene ID:	16163
UniProt:	P20109
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.
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Application Details

Plate:	Pre-coated
Protocol:	mouse IL-13 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from rat specific for IL-13 has been precoated onto 96-well plates. Standards(E.coli, S26-F131) 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 mouse 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, 31.2pg/mL, 15.6pg/mL mouse IL-13 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 mouse cell culture supernates, serum or plasma(heparin, EDTA) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each mouse IL-13 standard solution and each sample be measured in duplicate.
Assay Precision:	<ul style="list-style-type: none">• Sample 1: n=16, Mean(pg/ml): 112, Standard deviation: 6.16, CV(%): 5.5• Sample 2: n=16, Mean(pg/ml): 355, Standard deviation: 21.3, CV(%): 6• Sample 3: n=16, Mean(pg/ml): 628, Standard deviation: 29.52, CV(%): 4.7,• Sample 1: n=24, Mean(pg/ml): 149, Standard deviation: 9.24, CV(%): 6.2• Sample 2: n=24, Mean(pg/ml): 417, Standard deviation: 29.61, CV(%): 7.1• Sample 3: n=24, Mean(pg/ml): 674, Standard deviation: 39.1, 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:	Fernández, Baldassarro, Sivilia, Giardino, Calzà: "Inflammation severely alters thyroid hormone signaling in the central nervous system during experimental allergic encephalomyelitis in rat:
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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](#)).

