Datasheet for ABIN2859332

IL-3 ELISA Kit

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Overview

Quantity:	96 tests
Target:	IL-3
Binding Specificity:	AA 27-169
Reactivity:	Rat
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 Rat IL-3
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: E.coli Immunogen sequence: I27-C169
Specificity:	Expression system for standard: E.coli Immunogen sequence: I27-C169
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-3
Alternative Name:	IL3 (IL-3 Products)
Background:	Protein Function: Granulocyte/macrophage colony-stimulating factors are cytokines that act in hematopoiesis by controlling the production, differentiation, and function of 2 related white cell populations of the blood, the granulocytes and the monocytes-macrophages. Background: The gene IL-3 encodes interleukin 3, a hematopoietic colony-stimulating factor(CSF) that is capable of supporting the proliferation of a broad range of hematopoietic cell types. Interleukin-3(IL-3), a protein of 140 amino acids, is chemically synthesized by means of an automated peptide synthesizer and is shown to have the biological activities attributed to native IL-3. The cDNA sequence for murine interleukin-3, one of the colony stimulating factors that regulate haematopoiesis, codes for a polypeptide of 166 amino acids including a putative signal peptide. The mouse IL 3 gene is located on chromosome 11. The human gene encoding IL 3 is tandemly arrayed on the long arm of chromosome 5.5 The standard product used in this kit is recombinant human IL-3, consisting of 133 amino acids with the molecular mass of 15KDa. Synonyms: Interleukin-3,IL-3,Hematopoietic growth factor,Mast cell growth factor,MCGF,Multipotential colony-stimulating factor,P-cell-stimulating factor,Il3,Il-3, Full Gene Name: Interleukin-3 Cellular Localisation: Secreted.
Gene ID:	24495
UniProt:	P04823
Pathways:	JAK-STAT Signaling, Regulation of Carbohydrate Metabolic Process, Autophagy

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.

Application Details

Comment:	Tissue Specificity: Activated T-cells, mast cells, natural killer cells.
Plate:	Pre-coated
Protocol:	rat IL-3 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for IL-3 has been precoated onto 96-well plates. Standards(E.coli, I27-C169) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for IL-3 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 rat IL-3 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 rat IL-3 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 rat cell culture supernates or serum to each empty well. See "Sample Dilution Guideline" above for details. We recommend that each rat IL-3 standard solution and each sample is measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(pg/ml): 44, Standard deviation: 2.29, CV(%): 5.2 • Sample 2: n=16, Mean(pg/ml): 166, Standard deviation: 11.8, CV(%): 7.1 • Sample 3: n=16, Mean(pg/ml): 347, Standard deviation: 23.25, CV(%): 6.7, • Sample 1: n=24, Mean(pg/ml): 65, Standard deviation: 3.77, CV(%): 5.8 • Sample 2: n=24, Mean(pg/ml): 191, Standard deviation: 15.1, CV(%): 7.9 • Sample 3: n=24, Mean(pg/ml): 386, Standard deviation: 27.02, CV(%): 7
Restrictions:	For Research Use only

Handling

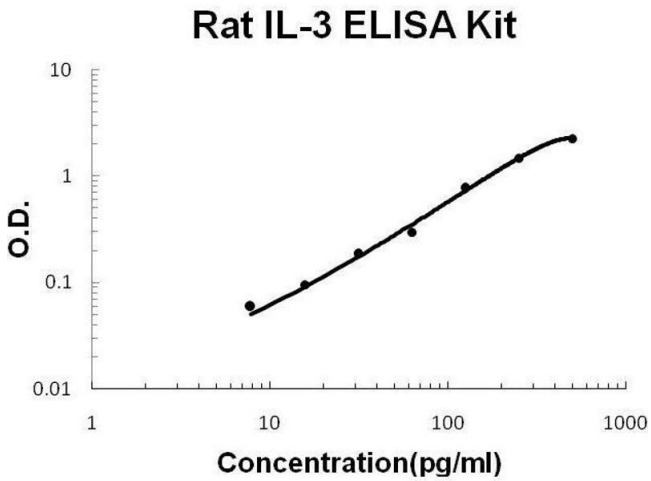
Handling Advice:	Avoid multiple freeze-thaw cycles.
Storage:	-20 °C,4 °C
Storage Comment:	Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles
Expiry Date:	12 months

Publications

Product cited in:	Huang, Lv, Liu, Ye, Yang, Li, Zhu, Wang, Cui, Jiang, Hao, Xu, Jin, Qian: "A SIRPα-Fc fusion protein

enhances the antitumor effect of oncolytic adenovirus against ovarian cancer." in: **Molecular oncology**, Vol. 14, Issue 3, pp. 657-668, (2021) (PubMed).

Images



ELISA

Image 1. Rat IL-3 PicoKine ELISA Kit standard curve