Datasheet for ABIN411296

IL-2 ELISA Kit

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Overview

Quantity:	96 tests
Target:	IL-2 (IL2)
Binding Specificity:	AA 21-169
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-2
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: A21-Q169
Specificity:	Expression system for standard: E.coli,A21-Q169
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.
Sensitivity:	<1pg/mL

Product Details

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-2 (IL2)
Alternative Name:	IL2 (IL2 Products)
Background:	Protein Function: Produced by T-cells in response to antigenic or mitogenic stimulation, this protein is required for T-cell proliferation and other activities crucial to regulation of the immune response. Can stimulate B-cells, monocytes, lymphokine- activated killer cells, natural killer cells, and glioma cells. Background: Interleukin-2(IL2), formerly referred to as T-cell growth factor, is a powerfully immunoregulatory lymphokine that is produced by lectin- or antigen-activated T cells. It is produced not only by mature T lymphocytes on stimulation but also constitutively by certain T-cell lymphoma cell lines. The lymphokine interleukin-2(IL-2) is responsible for autocrine cell cycle progression and regulation of immune responses. IL-2 expression in mature thymocytes and T cells has been found to be tightly controlled by monoallelic expression. IL-2 can act as a growth hormone for both B and T lymphocytes. The human gene for interleukin 2(IL2) is assigned to chromosome 4. Mouse IL-2 contains 149 amino acids in mature form with the molecular mass of 17.2KDa. Synonyms: Interleukin-2,IL-2,T-cell growth factor,TCGF,Il2,Il-2, Full Gene Name: Interleukin-2 Cellular Localisation: Secreted.
Gene ID:	16183
UniProt:	P04351
Pathways:	JAK-STAT Signaling, Regulation of Leukocyte Mediated Immunity, Positive Regulation of Immune Effector Process, Production of Molecular Mediator of Immune Response, Activated T Cell Proliferation

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

Plate:	Pre-coated
Protocol:	mouse IL-2 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from rat specific for IL-2 has been precoated onto 96-well plates. Standards (E.coli,A21-Q169) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for IL-2 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-2 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-2 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, citrate) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each mouse IL-2 standard solution and each sample be measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(pg/ml): 81, Standard deviation: 4.536, CV(%): 5.6 • Sample 2: n=16, Mean(pg/ml): 215, Standard deviation: 11.61, CV(%): 5.4 • Sample 3: n=16, Mean(pg/ml): 590, Standard deviation: 25.37, CV(%): 4.3, • Sample 1: n=24, Mean(pg/ml): 86, Standard deviation: 5.246, CV(%): 6.1 • Sample 2: n=24, Mean(pg/ml): 193, Standard deviation: 13.32, CV(%): 6.9 • Sample 3: n=24, Mean(pg/ml): 575, Standard deviation: 29.9, CV(%): 5.2
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:	Kostrzewa-Nowak, Kubaszewska, Nowakowska, Nowak: "Effect of Aerobic and Anaerobic

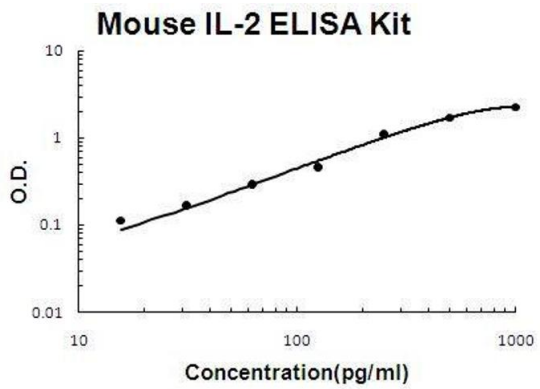
Publications

Exercise on the Complement System of Proteins in Healthy Young Males." in: **Journal of clinical medicine**, Vol. 9, Issue 8, (2020) (PubMed).

Bhattad, Rawat, Gupta, Suri, Garg, de Boer, Kuijpers, Singh: "Early Complement Component Deficiency in a Single-Centre Cohort of Pediatric Onset Lupus." in: **Journal of clinical immunology**, Vol. 35, Issue 8, pp. 777-85, (2015) (PubMed).

There are more publications referencing this product on: Product page

Images



ELISA

Image 1. Mouse IL-2 PicoKine ELISA Kit standard curve