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Datasheet for ABIN1672868

IL29 ELISA Kit

1 Image

1 Publication

Overview

Quantity:	96 tests
Target:	IL29
Binding Specificity:	AA 20-200
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	62.5-4000 pg/mL
Minimum Detection Limit:	62.5 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human IL-29
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: NSO Immunogen sequence: G20-T200
Specificity:	Expression system for standard: NSO Immunogen sequence: G20-T200
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: IL29

Alternative Name: IFNL1 ([IL29 Products](#))

Background: Protein Function: Cytokine with antiviral, antitumour and immunomodulatory activities. Plays a critical role in the antiviral host defense, predominantly in the epithelial tissues. Acts as a ligand for the heterodimeric class II cytokine receptor composed of IL10RB and IFNLR1, and receptor engagement leads to the activation of the JAK/STAT signaling pathway resulting in the expression of IFN- stimulated genes (ISG), which mediate the antiviral state. Has a restricted receptor distribution and therefore restricted targets: is primarily active in epithelial cells and this cell type- selective action is because of the epithelial cell-specific expression of its receptor IFNLR1. Exerts an immunomodulatory effect by up-regulating MHC class I antigen expression.

Background: Interferon lambda-1, also called Interleukin-29(IL-29) is a protein that in humans is encoded by the IL29 gene. IL-29 is a member of the helical cytokine family and is a type III interferon. This gene is mapped to 19q13.2. It is a cytokine with immunomodulatory activity. This gene may play a role in antiviral immunity. It can up-regulates MHC class I antigen expression. It is the ligand for the heterodimeric class II cytokine receptor composed of IL10RB and IFNLR1. The ligand/receptor complex seems to signal through the Jak-STAT pathway. IL-29 plays an important role in host defenses against microbes and its gene is highly upregulated in cells infected with viruses.

Synonyms: Interferon lambda-1,IFN-lambda-1,Cytokine Zcyto21,Interleukin-29,IL-29,IFNL1,IL29,ZCYTO21,

Full Gene Name: Interferon lambda-1

Cellular Localisation: Secreted.

Gene ID: 282618

UniProt: [Q8IU54](#)

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 lambda interferon family.
Plate:	Pre-coated
Protocol:	human IL-29 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for IL-29 has been precoated onto 96-well plates. Standards(NSO, G20-T200) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for IL-29 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-29 amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 4000pg/mL, 2000pg/mL, 1000pg/mL, 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL human IL-29 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 or plasma(heparin, EDTA) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human IL-29 standard solution and each sample be measured in duplicate.
Assay Precision:	<ul style="list-style-type: none">• Sample 1: n=16, Mean(pg/ml): 517, Standard deviation: 33.1, CV(%): 6.4• Sample 2: n=16, Mean(pg/ml): 1446, Standard deviation: 76.64, CV(%): 5.3• Sample 3: n=16, Mean(pg/ml): 2336, Standard deviation: 114.5, CV(%): 4.9,• Sample 1: n=24, Mean(pg/ml): 643, Standard deviation: 45.01, CV(%): 7• Sample 2: n=24, Mean(pg/ml): 1550, Standard deviation: 105.4, CV(%): 6.8• Sample 3: n=24, Mean(pg/ml): 2468, Standard deviation: 140.7, CV(%): 5.7

Restrictions:	For Research Use only
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Handling

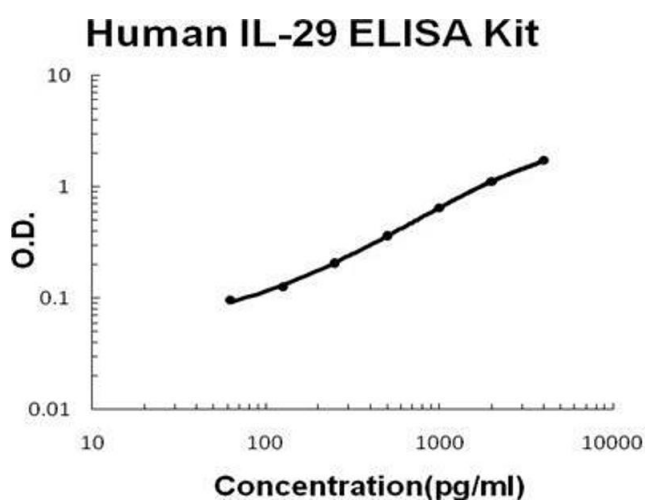
Handling Advice:	Avoid multiple freeze-thaw cycles.
Storage:	-20 °C,4 °C
Storage Comment:	Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles
Expiry Date:	12 months

Publications

Product cited in: Jiang, Li, Zhou, Wang, Zhang, Wang: "Colistin-induced apoptosis in PC12 cells: involvement of the mitochondrial apoptotic and death receptor pathways." in: **International journal of molecular medicine**, Vol. 33, Issue 5, pp. 1298-304, (2014) ([PubMed](#)).

Xu, Liu, Wu, Gong, Zhou, Qiao: "Proapoptotic effect of metalloproteinase 9 secreted by trophoblasts on endothelial cells." in: **The journal of obstetrics and gynaecology research**, Vol. 37, Issue 3, pp. 187-94, (2011) ([PubMed](#)).

Images



ELISA

Image 1. Human IL-29 PicoKine ELISA Kit standard curve