Datasheet for ABIN1889315

IL7R ELISA Kit

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Overview

Quantity:	96 tests
Target:	IL7R
Binding Specificity:	AA 21-262
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	312-20000 pg/mL
Minimum Detection Limit:	312 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human IL7R/CD127
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: NSO Immunogen sequence: E21-I262
Specificity:	Expression system for standard: NSO Immunogen sequence: E21-I262
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:	IL7R
Alternative Name:	IL7R (IL7R Products)
Background:	Protein Function: Receptor for interleukin-7. Also acts as a receptor for thymic stromal lymphopoietin (TSLP). Background: The interleukin-7 receptor(IL7R) is a protein found on the surface of cells. It is mapped to 5p13.2. The protein encoded by this gene is a receptor for interleukine 7(IL7). The function of this receptor requires the interleukin 2 receptor, gamma chain(IL2RG), which is a common gamma chain shared by the receptors of various cytokines, including interleukine 2, 4, 7, 9, and 15. IL7R has been shown to play a critical role in the development of immune cells called lymphocytes-specifically in a process known as V(D)J recombination. This protein is also found to control the accessibility of a region of the genome that contains the T-cell receptor gamma gene, by STAT5 and histone acetylation. What's more, IL7R antagonism is efficacious in treatment of EAE through its effects on Th17 cells and is a potential treatment for MS. Synonyms: Interleukin-7 receptor subunit alpha,IL-7 receptor subunit alpha,IL-7R subunit alpha,IL-7R-alpha,IL-7RA,CDw127,CD127,IL7R, Full Gene Name: Interleukin-7 receptor subunit alpha Cellular Localisation: Isoform 1: Cell membrane, Single-pass type I membrane protein.
Gene ID:	3575
UniProt:	P16871
Pathways:	JAK-STAT Signaling, Regulation of Leukocyte Mediated Immunity, Production of Molecular Mediator of Immune Response, Regulation of Cell Size

Application Details

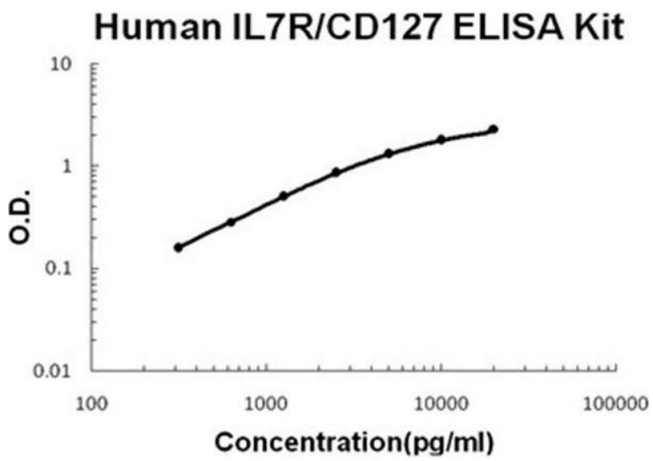
Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well assay was recommended for both standard and sample testing.

Application Details

Comment:	Sequence similarities: Belongs to the type I cytokine receptor family. Type 4 subfamily.
Plate:	Pre-coated
Protocol:	human IL7R ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for IL7R has been precoated onto 96-well plates. Standards(NSO, E21-I262) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for IL7R 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 IL7R amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 20000pg/mL, 10000pg/mL, 5000pg/mL, 2500pg/mL, 1250pg/mL, 625pg/mL, 312pg/mL human IL7R 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 or serum to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human IL7R standard solution and each sample be measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(ng/ml): 2.8, Standard deviation: 0.168, CV(%): 6 • Sample 2: n=16, Mean(ng/ml): 8, Standard deviation: 0.36, CV(%): 4.5 • Sample 3: n=16, Mean(ng/ml): 14.3, Standard deviation: 0.815, CV(%): 5.7, • Sample 1: n=24, Mean(ng/ml): 3.4, Standard deviation: 0.245, CV(%): 7.2 • Sample 2: n=24, Mean(ng/ml): 9.1, Standard deviation: 0.51, CV(%): 5.6 • Sample 3: n=24, Mean(ng/ml): 16.2, Standard deviation: 1.07, CV(%): 6.6
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



ELISA

Image 1. Human IL7R/CD127 PicoKine ELISA Kit standard curve

