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Datasheet for ABIN1889296

IL1R1 ELISA Kit

1 Image

Overview

Quantity:	96 tests
Target:	IL1R1
Binding Specificity:	AA 21-332
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	125-8000 pg/mL
Minimum Detection Limit:	125 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human IL1R1
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: NSO Immunogen sequence: D21-T332
Specificity:	Expression system for standard: NSO Immunogen sequence: D21-T332
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: IL1R1

Alternative Name: IL1R1 ([IL1R1 Products](#))

Background: Protein Function: Receptor for IL1A, IL1B and IL1RN. After binding to interleukin-1 associates with the coreceptor IL1RAP to form the high affinity interleukin-1 receptor complex which mediates interleukin-1-dependent activation of NF-kappa-B, MAPK and other pathways. Signaling involves the recruitment of adapter molecules such as TOLLIP, MYD88, and IRAK1 or IRAK2 via the respective TIR domains of the receptor/coreceptor subunits. Binds ligands with comparable affinity and binding of antagonist IL1RN prevents association with IL1RAP to form a signaling complex. .

Background: Interleukin 1 receptor, type I(IL1R1), also known as CD121a(Cluster of Differentiation 121a), is an interleukin receptor. The protein encoded by this gene is a cytokine receptor that belongs to the interleukin-1 receptor family. IL1R1 along with interleukin 1 receptor, type II(IL1R2), interleukin 1 receptor-like 2(IL1RL2), and interleukin 1 receptor-like 1(IL1RL1) form a cytokine receptor gene cluster in a region mapped to chromosome 2q12. This protein is a receptor for interleukin 1 alpha(IL1A), interleukin 1 beta(IL1B), and interleukin 1 receptor antagonist(IL1RA). It is an important mediator involved in many cytokine induced immune and inflammatory responses.

Synonyms: Interleukin-1 receptor type 1,IL-1R-1,IL-1RT-1,IL-1RT1,CD121 antigen-like family member A,Interleukin-1 receptor alpha,IL-1R-alpha,Interleukin-1 receptor type I,p80,CD121a,Interleukin-1 receptor type 1, membrane form,mIL-1R1,mIL-1RI,Interleukin-1 receptor type 1, soluble form,sIL-1R1,sIL-1RI,IL1R1,IL1R, IL1RA, IL1RT1,

Full Gene Name: Interleukin-1 receptor type 1

Cellular Localisation: Membrane, Single-pass type I membrane protein . Cell membrane . Secreted.

Gene ID: 3554

UniProt: [P14778](#)

Target Details

Pathways: [NF-kappaB Signaling](#), [Carbohydrate Homeostasis](#), [Cancer Immune Checkpoints](#)

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 interleukin-1 receptor family.

Plate: Pre-coated

Protocol: human IL1R1 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for IL1R1 has been precoated onto 96-well plates. Standards(NSO, D21-T332) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for IL1R1 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 IL1R1 amount of sample captured in plate.

Assay Procedure: Aliquot 0.1 mL per well of the 8000pg/mL, 4000pg/mL, 2000pg/mL, 1000pg/mL, 500pg/mL, 250pg/mL, 125pg/mL human IL1R1 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 IL1R1 standard solution and each sample be measured in duplicate.

Assay Precision:

- Sample 1: n=16, Mean(pg/ml): 746, Standard deviation: 30.59, CV(%): 4.1
- Sample 2: n=16, Mean(pg/ml): 3374, Standard deviation: 175.5, CV(%): 5.2
- Sample 3: n=16, Mean(pg/ml): 5587, Standard deviation: 312.9, CV(%): 5.6
- Sample 1: n=24, Mean(pg/ml): 857, Standard deviation: 59.13, CV(%): 6.9
- Sample 2: n=24, Mean(pg/ml): 3345, Standard deviation: 250.9, CV(%): 7.5
- Sample 3: n=24, Mean(pg/ml): 6558, Standard deviation: 518.1, CV(%): 7.9

Restrictions: For Research Use only

Handling

Handling Advice: Avoid multiple freeze-thaw cycles.

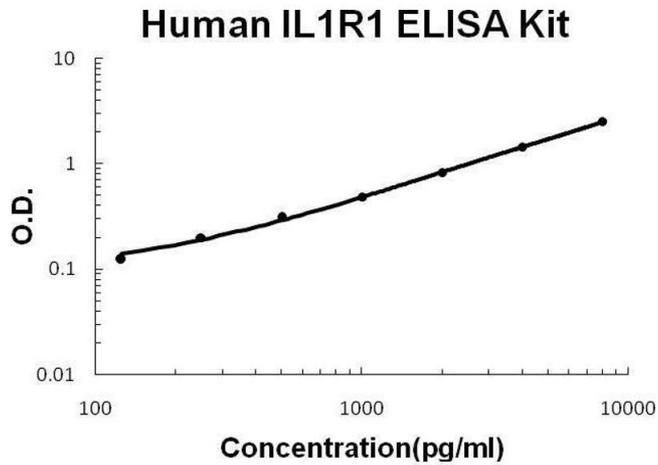
Storage: -20 °C, 4 °C

Handling

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

Expiry Date: 12 months

Images



ELISA

Image 1. Human IL1R1 PicoKine ELISA Kit standard curve