Datasheet for ABIN921100
IL1RN ELISA Kit

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Overview

Quantity:	96 tests
Target:	IL1RN
Binding Specificity:	AA 26-177
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	31.2-2000 pg/mL
Minimum Detection Limit:	31.2 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human IL-1RA
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: E.coli Immunogen sequence: R26-E177
Specificity:	Expression system for standard: E.coli Immunogen sequence: R26-E177
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity:	<2pg/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:	IL1RN
Alternative Name:	IL1RN (IL1RN Products)
Background:	Protein Function: Inhibits the activity of interleukin-1 by binding to receptor IL1R1 and preventing its association with the coreceptor IL1RAP for signaling. Has no interleukin-1 like activity. Binds functional interleukin-1 receptor IL1R1 with greater affinity than decoy receptor IL1R2, however, the physiological relevance of the latter association is unsure. .
	Background: The interleukin-1 receptor antagonist(IL-1RA) is a protein that in humans is encoded by the IL1RN gene. The human IL1RN gene was localized to the long arm of chromosome 2 at band 2q14.2 by fluorescence in situ hybridization.3 IL-1RA is a member of the interleukin 1 cytokine family. This protein inhibits the activities of interleukin 1, alpha(IL1A) and interleukin 1, beta(IL1B), and modulates a variety of interleukin 1 related immune and inflammatory responses.
	Synonyms: Interleukin-1 receptor antagonist protein,IL-1RN,IL-1ra,IRAP,ICIL-1RA,IL1 inhibitor,Anakinra,IL1RN,IL1F3, IL1RA,
	Full Gene Name: Interleukin-1 receptor antagonist protein
	Cellular Localisation: Isoform 1: Secreted.
Gene ID:	3557
UniProt:	P18510
Pathways:	NF-kappaB Signaling, Hormone Transport, 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:	Tissue Specificity: The intracellular form of IL1RN is predominantly expressed in epithelial cells.
Plate:	Pre-coated

Application Details

Protocol:	human IL-1RA ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for IL-1RA has been precoated onto 96-well plates. Standards(E.coli, R26-E177) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for IL-1RA 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-1RA amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 2000pg/mL,1000pg/mL, 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL, 31.2pg/mL human IL-1RA 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-1RA standard solution and each sample be measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(pg/ml): 80, Standard deviation: 4.64, CV(%): 5.8 • Sample 2: n=16, Mean(pg/ml): 574, Standard deviation: 25.83, CV(%): 4.5 • Sample 3: n=16, Mean(pg/ml): 1395, Standard deviation: 61.38, CV(%): 4.4, • Sample 1: n=24, Mean(pg/ml): 76, Standard deviation: 7, CV(%): 9.2 • Sample 2: n=24, Mean(pg/ml): 509, Standard deviation: 37.16, CV(%): 7.3 • Sample 3: n=24, Mean(pg/ml): 1213, Standard deviation: 77.6, CV(%): 6.4
Restrictions:	For Research Use only

Handling

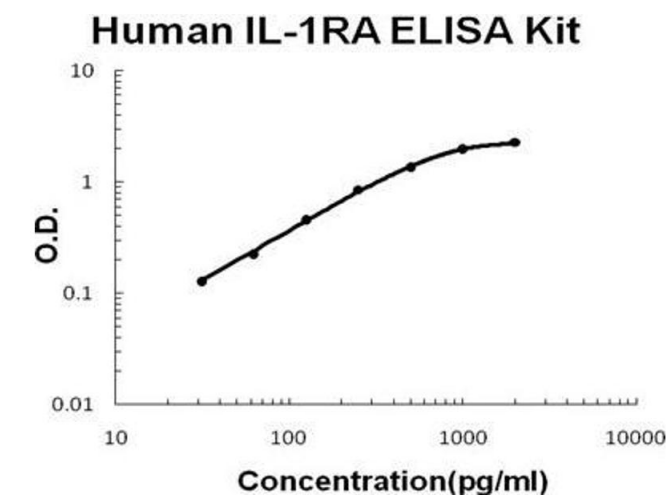|	
Handling Advice:	Avoid multiple freeze-thaw cycles.
Storage:	-20 °C,4 °C
Storage Comment:	Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles
Expiry Date:	12 months

Publications

Product cited in:	Esfahani, Saidijam, Najafi, Goodarzi, Movahedian: "The effect of salusin-β on expression of pro- and anti-inflammatory cytokines in human umbilical vein endothelial cells (HUVECs)." in: **ARYA atherosclerosis**, Vol. 14, Issue 1, pp. 1-10, (2018) (PubMed).

Publications

McCarthy: "Management. The name game." in: **Nursing times**, Vol. 85, Issue 1, pp. 44-5, (1989) (

PubMed).

Images

ELISA

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