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Datasheet for ABIN411308 IL-10 ELISA Kit

1 Image

66 Publications



Overview

Quantity:	96 tests
Target:	IL-10 (IL10)
Binding Specificity:	AA 19-178
Reactivity:	Rat
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 Rat IL-10
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (EDTA)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: E.coli Immunogen sequence: S19-N178
Specificity:	Expression system for standard: E.coli Immunogen sequence: S19-N178
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

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Product Details

Sensitivity:	<4pg/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:	IL-10 (IL10)
Alternative Name:	IL10 (IL10 Products)
Background:	Protein Function: Inhibits the synthesis of a number of cytokines, including IFN-gamma, IL-2, IL-
	3, TNF and GM-CSF produced by activated macrophages and by helper T-cells
	Background: Interleukin-10, also called cytokine synthesis inhibitory factor, is implicated in
	tumorigenesis, and it has been shown that polymorphisms in its gene promoter correlate with
	differential amounts of production. IL-10 is an important cytokine with anti-inflammatory, anti-
	immune, and antifibrotic functions. It is also an important regulatory cytokine whose
	involvement extends into diverse areas of the human immune system. IL-10 is a recently
	described natural endogenous immunosuppressive cytokine that has been identified in human,
	murine, and other organisms. IL-10 significantly affects chemokine biology, because human IL-
	10 inhibits chemokine production and is a specific chemotactic factor for CD8+ T cells. It
	suppresses the ability of CD4+ T cells, but not CD8+ T cells, to migrate in response to IL-8.
	Interleukin-10 gene polymorphisms and interleukin-10 production capability may contribute to
	the development of skin squamous cell carcinomas after renal transplantation. The interleukin-
	10 locus contributes to the heritability of psoriasis susceptibility. With regard to sudden infant
	death, IL-10 is of special interest. This is an immunoregulatory cytokine that plays an important
	role in the development of infectious disease. The mIL-10 gene is mapped to mouse
	chromosome 1 and the hIL-10 gene is also mapped to human chromosome 1.
	Synonyms: Interleukin-10,IL-10,Cytokine synthesis inhibitory factor,CSIF,II10,II-10,
	Full Gene Name: Interleukin-10
	Cellular Localisation: Secreted.
Gene ID:	25325
UniProt:	P29456
Pathways:	Cellular Response to Molecule of Bacterial Origin, Regulation of Leukocyte Mediated Immunity,
	Production of Molecular Mediator of Immune Response, Maintenance of Protein Location,

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Cancer Immune Checkpoints

Application Details

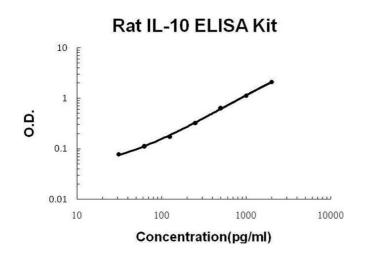
Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well assay was recommended for both standard and sample testing.
Plate:	Pre-coated
Protocol:	rat IL-10 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for IL-10 has been precoated onto 96-well plates. Standards(E.coli, S19-N178) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for IL-10 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 rat IL-10 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 rat IL-10 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 rat cell culture supernates, serum or plasma(EDTA) to each empty well. See "Sample Dilution Guideline" above for details. We recommend that each rat IL-10 standard solution and each sample is measured in duplicate.
Assay Precision:	 Sample 1: n=16, Mean(pg/ml): 277, Standard deviation: 13.85, CV(%): 5 Sample 2: n=16, Mean(pg/ml): 821, Standard deviation: 34.5, CV(%): 4.2 Sample 3: n=16, Mean(pg/ml): 1344, Standard deviation: 52.42, CV(%): 3.9, Sample 1: n=24, Mean(pg/ml): 316, Standard deviation: 29.1, CV(%): 9.2 Sample 2: n=24, Mean(pg/ml): 938, Standard deviation: 70.35, CV(%): 7.5 Sample 3: n=24, Mean(pg/ml): 1620, Standard deviation: 144.2, CV(%): 8.9
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

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Handling	
Expiry Date:	12 months
Publications	
Product cited in:	Fernández, Baldassarro, Sivilia, Giardino, Calzà: "Inflammation severely alters thyroid hormone
	signaling in the central nervous system during experimental allergic encephalomyelitis in rat:
	Direct impact on OPCs differentiation failure." in: Glia, Vol. 64, Issue 9, pp. 1573-89, (2016) (
	PubMed).
	Vidart, Wajner, Leite, Manica, Schaan, Larsen, Maia: "N-acetylcysteine administration prevents
	nonthyroidal illness syndrome in patients with acute myocardial infarction: a randomized
	clinical trial." in: The Journal of clinical endocrinology and metabolism, Vol. 99, Issue 12, pp.
	4537-45, (2014) (PubMed).

There are more publications referencing this product on: Product page

Images



ELISA

Image 1. Rat IL-10 PicoKine ELISA Kit standard curve