Datasheet for ABIN411303
IL-6 ELISA Kit

1	Image		147	Publications

Overview

Quantity:	96 tests
Target:	IL-6 (IL6)
Binding Specificity:	AA 29-212
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	4.69-300 pg/mL
Minimum Detection Limit:	4.69 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human IL-6
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA), Plasma (citrate)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: E.coli Immunogen sequence: P29-M212
Specificity:	Expression system for standard: E.coli Immunogen sequence: P29-M212
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity:	<0.3pg/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-6 (IL6)
Alternative Name:	IL6 (IL6 Products)
Background:	Background: The human interferon-beta 2 gene(IFNB2) product is identical to that for the B-cell stimulation factor-2(BSF-2), the hybridoma growth factor(HGF)("interleukin-6"), and the hepatocyte stimulating factor(HSF). Proteins derived from this gene mediate the plasma protein response to tissue injury(acute-phase response) and regulate the growth and differentiation of both B and T cells. Interleukin-6(IL6) has come to be regarded as a potential osteoporotic factor because it has stimulatory effects on cells of the osteoclast lineage, and, thus, may play a role in the pathogenesis of bone loss associated with estrogen deficiency. IL-6 has many roles essential to the regulation of the immune response, hematopoiesis, and bone resorption. It is involved not only in the hepatic acute phase response but also in adipose tissue metabolism, lipoprotein lipase activity, and hepatic triglyceride secretion. Overproduction of IL-6, a proinflammatory cytokine, is associated with a spectrum of age-related conditions including cardiovascular disease, osteoporosis, arthritis, type 2 diabetes, certain cancers, periodontal disease, frailty, and functional decline. BSF-2 is a novel interleukin consisting of 184 amino acids. The standard product used in this kit is recombinant human IL-6, consisting of 184 amino acids with the molecular mass of 20.3 kDa. Synonyms: cDNA FLJ61423, highly similar to Interleukin-6 , Full Gene Name: interleukin 6
Gene ID:	3569
UniProt:	B4DVM1
Pathways:	TLR Signaling, Hormone Transport, Negative Regulation of Hormone Secretion, Myometrial Relaxation and Contraction, Positive Regulation of Immune Effector Process, Production of Molecular Mediator of Immune Response, Regulation of Carbohydrate Metabolic Process, Autophagy, Cell RedoxHomeostasis, Cancer Immune Checkpoints, Inflammasome

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:	human IL-6 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for IL-6 has been precoated onto 96-well plates. Standards(E.coli, P29-M212) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for IL-6 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-6 amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 300pg/mL, 150pg/mL, 75pg/mL, 37.5pg/mL, 18.75pg/mL, 9.38pg/mL, 4.69pg/mL human IL-6 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, citrate) to each empty well. See "Sample Dilution Guideline" above for details. We recommend that each human IL-6 standard solution and each sample is measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(pg/ml): 16.3, Standard deviation: 0.8, CV(%): 4.9 • Sample 2: n=16, Mean(pg/ml): 98, Standard deviation: 2.3, CV(%): 2.3 • Sample 3: n=16, Mean(pg/ml): 179, Standard deviation: 2.3, CV(%): 2.3, • Sample 1: n=24, Mean(pg/ml): 18.2, Standard deviation: 1.0, CV(%): 5.5 • Sample 2: n=24, Mean(pg/ml): 99, Standard deviation: 3.6, CV(%): 3.6 • Sample 3: n=24, Mean(pg/ml): 185, Standard deviation: 5.7, CV(%): 3.1
Restrictions:	For Research Use only

Handling

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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:

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
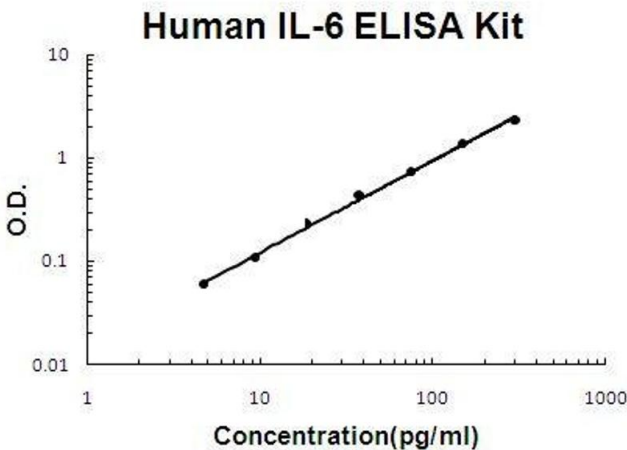
ELISA
Image 1. Human IL-6 PicoKine ELISA Kit standard curve