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Human IL-6 (PeliKine compact™) ELISA Kit

Catalog No: M1916 **Size:** 3 x 96 tests

Introduction:

Interleukin 6 (IL-6) is a mediator of the inflammatory response and is involved in the induction of acute phase proteins and the development of fever. A marked correlation between IL-6 levels and inflammatory processes has been demonstrated in synovial fluid and serum of rheumatoid arthritis patients and in serum of patients with burns. It was demonstrated that in recipients of kidney transplants the IL-6 levels in serum and urine hallmark the onset of rejection episodes. Elevated IL-6 levels were also observed in sera of patients with septic shock, multiple myeloma and alcoholic hepatitis, and a significant difference between IL-6 levels of survivors and non-survivors was found.
Bioassays for the quantification of IL-6, based on the proliferation of B-cell hybridomas have been used for several years. These assays, although sensitive, are time consuming and susceptible to interference by other substances.
This PeliKine compact™ IL-6 ELISA kit has been developed for faster, more reproducible and specific quantification of human IL-6 (hIL-6) in plasma and other body fluids, as well as in cell-culture supernatant.

CONTENTS OF THE KIT

Item	Quantity	Kit Component	Volume	Cap Color
M191602	1 vial	Coating antibody, 100X	375 µl	red
M1941	1 vial	Blocking reagent, 50X	2 ml	transparent
M191603	1 vial	IL-standard, see label	750 µl	black
M191604	1 vial	Biotinylated antibody, 100X	375 µl	yellow
M1942	1 vial	Streptavidin-poly-HRP-conjugate, 10,000X	20 µl	brown
M1940	1 bottle	HPE-dilution buffer, 5X	55 ml	-
M1916-P	3	Microtiter plate + lid	-	-
M1916-S	10	Plate seals	-	-

Assay Procedure:
See Assay procedure for PeliKine™ compact ELISA kit.

Sensitivity:

MEAN calculated zero signal + 3 SD : 0.2 – 0.4 pg/ml (shake – static incubation)

2x (MEAN calculated zero signal) : 0.5 – 1.0 pg/ml (shake – static incubation)

Expected Values:

IL-6 values in fresh serum and plasma samples of healthy individuals are below 20 pg/ml.

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Specificity:

No cross reactivity was observed with the following recombinant human proteins: IL-1α, IL-1ß, IL-2, IL-3, IL-4, IL-5, IL-7, IL-8, IL-9, IL-10, IL-11, IL-13, Macrophage Colony Stimulating Factor (M-CSF), Granulocyte Colony Stimulating Factor (G-CSF), Granulocyte/Macrophage Colony Stimulating Factor (GM-CSF), Leukemia Inhibitory Factor (LIF), RANTES, Stem Cell Factor/ Mast Cell Factor (SCF/MCF), Transforming Growth Factor ß-1 (TGFß-1), Tumor Necrosis Factor α (TNF-α), Tumor Factor ß (TNFß/Lymphotoxin), and Interferon γ (IFNγ).

Standard:

A recombinant huIL-6 standard has been calibrated against the WHO First International Standard (IL-6 89/548; National Institute for Biological Standards and Control, Potter Bar, Hertfordshire, U.K. 1 WHO Unit = 10 pg IL-6.

The kit contains one black-capped vial with 4000 pg/ml recombinant huIL-6

Avoid repeated freeze-thawing of the standard, although experimental data have shown that up to 3 freeze-thaw cycles have no effect on the IL-6 levels of the standard.

Standard Curve:

Label 7 tubes, one tube for each dilution: 450, 150, 50, 16.7, 5.6, 1.9 and 0.6 pg/ml.
Pipette 497 µl of working-strength dilution buffer into the tube labeled 450 pg/ml and 400 µl of working strength dilution buffer into the other tubes.
Transfer 63 µl of the IL-6 standard (4000 pg/ml) into the first tube labeled 450 pg/ml, mix well and transfer 200 µl of this dilution into the second tube labeled 150 pg/ml.
Repeat the serial dilutions five more times by adding 200 µl of the previous tube of diluted standard to the 400 µl of dilution buffer.

The standard curve will contain 450, 150, 50, 16.7, 5.6, 1.9, 0.6 and 0 pg/ml (dilution buffer).
It is recommended it prepare two separate series for each assay.

Samples:

It is recommended to dilute the test samples at least 1:2 in working-strength dilution buffer. If high levels of IL-6 (outside the standard curve) are expected in the test samples, additional dilutions of sample i.e. 1:10 and 1:100 should also be prepared.

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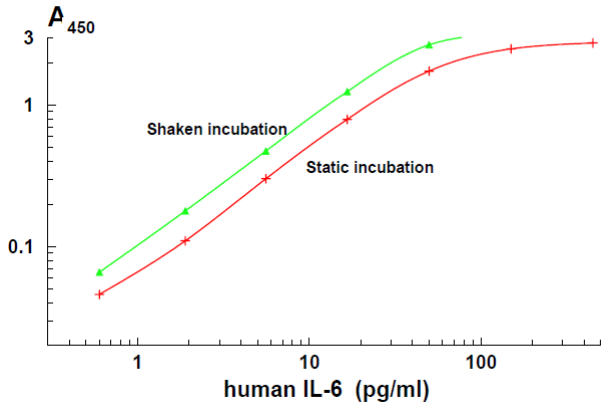
Typical Standard Curve:



	STATIC INCUBATION	SHAKEN INCUBATION
	Calculated mean absorbance at 450 nm	
substrate blank	0	0
0 pg/ml	0.014	0.019
0.6 pg/ml	0.046	0.066
1.9 pg/ml	0.110	0.179
5.6 pg/ml	0.302	0.474
16.7 pg/ml	0.793	1.245
50 pg/ml	1.738	2.667
150 pg/ml	2.497	> 3.000
450 pg/ml	2.750	> 3.000

DO NOT USE THESE DATA TO CONSTRUCT A STANDARD CURVE FOR SAMPLE VALUE CALCULATIONS

NOT FOR HUMAN USE. FOR RESEARCH ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

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