

Human IL-6 ELISA Kit ab46027

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Overview

Product name Human IL-6 ELISA Kit

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Pooled sampl	15			4.2%

Inter-assay

Sample	n	Mean	SD	CV%
Sample 1	18	200pg/ml	16	8.1%
Sample 2	18	77pg/ml	8	10.1%
Sample 3	18	63pg/ml	6	8.6%
Sample 4	18	103pg/ml	6	6%
Sample 5	18	53pg/ml	3	5.5%

Sample type Cell culture supernatant, Serum, Plasma

Assay type Sandwich (quantitative)

Sensitivity < 2 pg/ml

Range 6.25 pg/ml - 200 pg/ml

Recovery 96 %

Assay time 1h 45m

Assay duration Multiple steps standard assay

Species reactivity **Reacts with:** Human

Product overview Abcam's IL-6 Human *in vitro* ELISA (Enzyme-Linked Immunosorbent Assay) kit is designed for the quantitative measurement of IL-6 in Human serum, plasma, buffered solutions or supernatants.

A monoclonal antibody specific for IL-6 has been coated onto the wells of the microtiter strips

provided. Samples, including standards of known IL-6 concentrations, control specimens or unknowns are pipetted into these wells. During the first incubation, the standards or samples and a biotinylated monoclonal antibody specific for IL-6 are simultaneously incubated. After washing, the enzyme Streptavidin-HRP, that binds the biotinylated antibody is added, incubated and washed. A TMB substrate solution is added which acts on the bound enzyme to induce a colored reaction product. The intensity of this colored product is directly proportional to the concentration of IL-6 present in the samples.

This kit will recognize both endogenous and recombinant Human IL-6.

Get higher sensitivity in only 90 minutes with Human IL-6 ELISA Kit ([ab178013](#)) from our SimpleStep ELISA® range.

Platform

Microplate

Properties

Storage instructions

Store at +4°C. Please refer to protocols.

Components	Identifier	2 x 96 tests	1 x 96 tests	1 x 96 tests	2 x 96 tests
10X Standard Diluent Buffer	Black	1 x 25ml	1 x 15ml	1 x 15ml	1 x 25ml
200X Wash Buffer	White	2 x 10ml	1 x 10ml	1 x 10ml	2 x 10ml
Adhesive plate seal		1 x 4 units	1 x 2 units	1 x 2 units	1 x 4 units
Biotinylated Antibody Diluent	Red	1 x 13ml	1 x 7.5ml	1 x 7.5ml	1 x 13ml
Biotinylated anti-IL-6	Red	2 x 0.4ml	1 x 0.4ml	1 x 0.4ml	2 x 0.4ml
Chromogen TMB Substrate Solution		1 x 24ml	1 x 11ml	1 x 11ml	1 x 24ml
HRP Diluent	Red	1 x 23ml	1 x 12ml	1 x 12ml	1 x 23ml
IL-6 Control	Yellow	4 vials	2 vials	2 vials	4 vials
IL-6 Microplate (12 x 8 well strips)		2 units	1 unit	1 unit	2 units
IL-6 Standard (Lyophilized)	Orange	4 vials	2 vials	2 vials	4 vials
Standard Diluent (Serum)		2 x 7ml	1 x 7ml	1 x 7ml	2 x 7ml
Stop Reagent	Black	2 x 11ml	1 x 11ml	1 x 11ml	2 x 11ml
Streptavidin-HRP		4 x 5µl	2 x 5µl	2 x 5µl	4 x 5µl

Function

Cytokine with a wide variety of biological functions. It is a potent inducer of the acute phase response. Plays an essential role in the final differentiation of B-cells into Ig-secreting cells. Involved in lymphocyte and monocyte differentiation. It induces myeloma and plasmacytoma growth and induces nerve cells differentiation. Acts on B-cells, T-cells, hepatocytes, hematopoietic progenitor cells and cells of the CNS. Also acts as a myokine. It is discharged into the

bloodstream after muscle contraction and acts to increase the breakdown of fats and to improve insulin resistance.

Involvement in disease

Genetic variations in IL6 are associated with susceptibility to rheumatoid arthritis systemic juvenile (RASJ) [MIM:604302]. An inflammatory articular disorder with systemic-onset beginning before the age of 16. It represents a subgroup of juvenile arthritis associated with severe extraarticular features and occasionally fatal complications. During active phases of the disorder, patients display a typical daily spiking fever, an evanescent macular rash, lymphadenopathy, hepatosplenomegaly, serositis, myalgia and arthritis.

Note=A IL6 promoter polymorphism is associated with a lifetime risk of development of Kaposi sarcoma in HIV-infected men.

Sequence similarities

Belongs to the IL-6 superfamily.

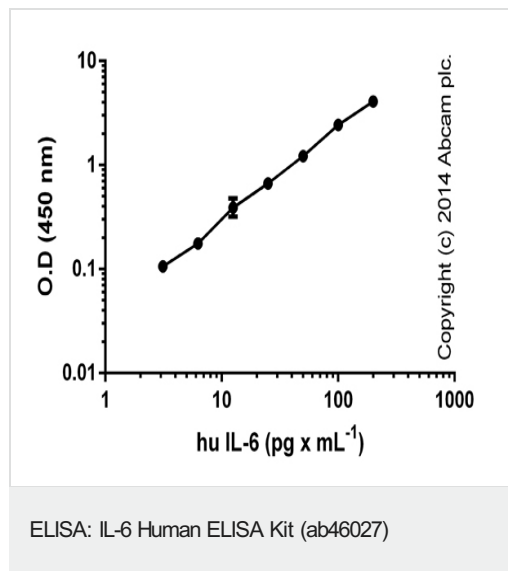
Post-translational modifications

N- and O-glycosylated.

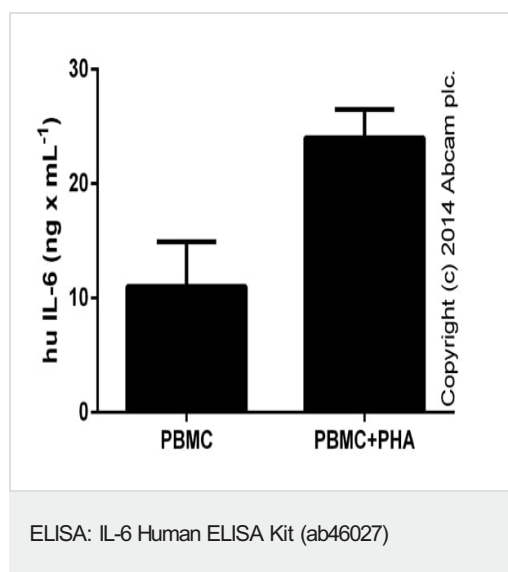
Cellular localization

Secreted.

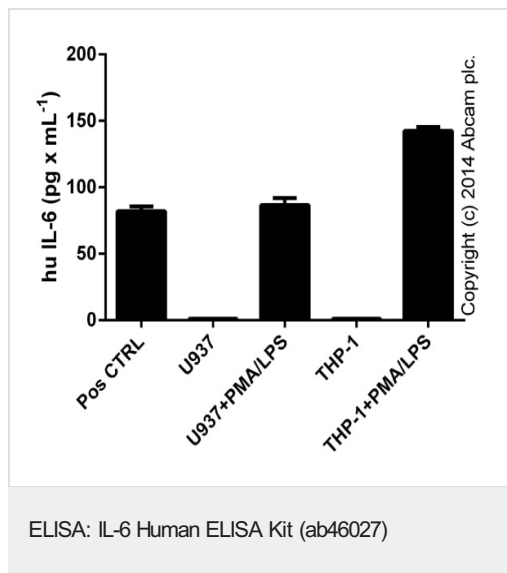
Images



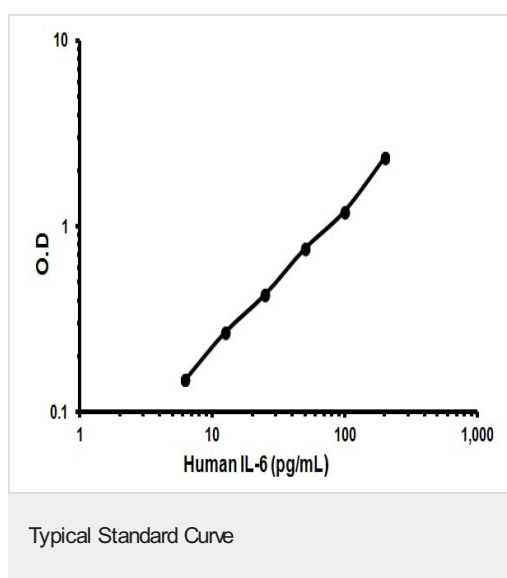
Standard curve of human IL-6 with background signal subtracted (duplicates; +/- SD).



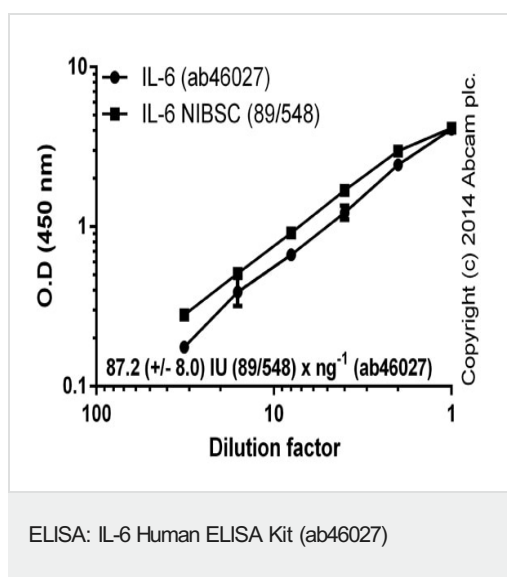
IL-6 measured in cell culture supernatants (diluted 1/50-1/1250) from control or treated (48 hours with 2% PHA-M; LifeTechnologies) PBMCs (duplicates +/- SD).



IL-6 detected in positive control (Pos CTRL; ab46027), and in supernatants (diluted 1/1-1/5) from control cells or cells stimulated for 24 hours with 50 nanogram x mL⁻¹ of PMA ([ab120297](#)) with 1 microgram x mL⁻¹ of LPS (Sigma) for the last 6 hours (PMA/LPS).



Representative Standard Curve using ab46027



Dilution curves of human IL-6 (ab46027) and NIBSC standard (89/548). One ng of standard IL-6 corresponds to 87.2 (+/- 8.0) IU NIBSC standard. Background signal subtracted (duplicates; +/- SD).

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