

Product datasheet

Human IL-6 ELISA Kit High Sensitivity ab46042

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Overview

Product name Human IL-6 ELISA Kit High Sensitivity

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Overall				4.4%

Inter-assay

Sample	n	Mean	SD	CV%
Sample 1	18	25pg/ml	3	12.2%
Sample 2	18	12pg/ml	1	8.7%
Sample 3	18	6pg/ml	1	13.7%
Sample 4	18	41pg/ml	2	5.9%
Sample 5	18	31pg/ml	1	4.9%

Sample type Cell culture supernatant, Serum, Plasma

Assay type Sandwich (quantitative)

Sensitivity < 0.8 pg/ml

Range 1.56 pg/ml - 50 pg/ml

Recovery 93 %

Assay time 3h 45m

Assay duration Multiple steps standard assay

Species reactivity **Reacts with:** Human

Product overview Abcam's IL-6 Human High Sensitivity *in vitro* ELISA (Enzyme-Linked Immunosorbent Assay) kit is designed for the quantitative measurement of IL-6 in supernatants, buffered solutions, serum, plasma and other body fluids. This assay will recognise both natural and recombinant Human IL-6.

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

Tested applications

Suitable for: Sandwich ELISA

Platform

Microplate

Properties

Storage instructions

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

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

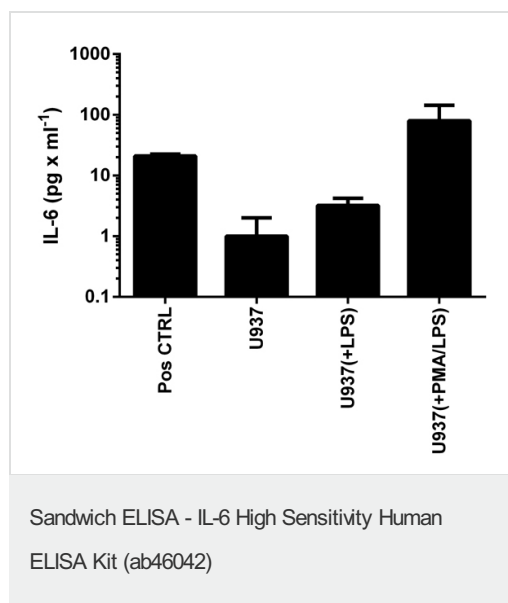
Applications

Our [Abpromise guarantee](#) covers the use of **ab46042** in the following tested applications.

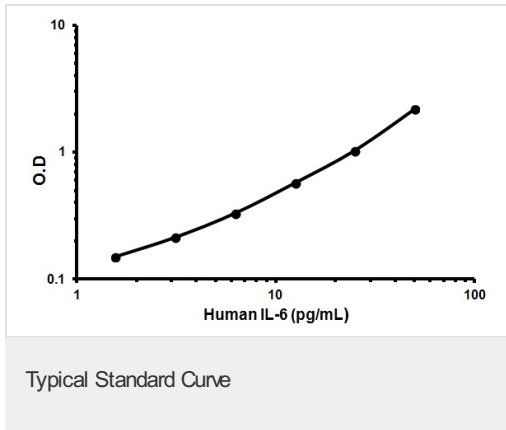
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Sandwich ELISA		Use at an assay dependent concentration.

Images



IL-6 was measured in cell culture medium from U937 control cells, or cells stimulated with LPS (1 µg x mL⁻¹; 6 h) or PMA (10 ng x mL⁻¹; 24 h) and LPS (background signal subtracted) (duplicates +/- SD).



Representative Standard Curve using ab46042

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