

## Product datasheet

# Human IL-6 ELISA Kit High Sensitivity ab46042

★★★★★ 2 Abreviews 18 References 2 Images

### 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.

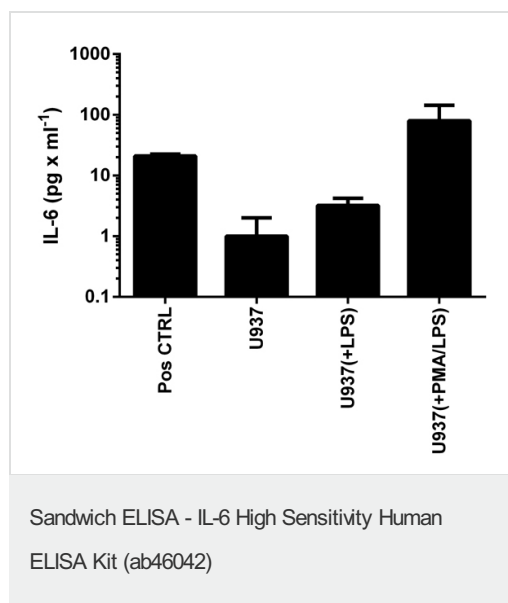
## Applications

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

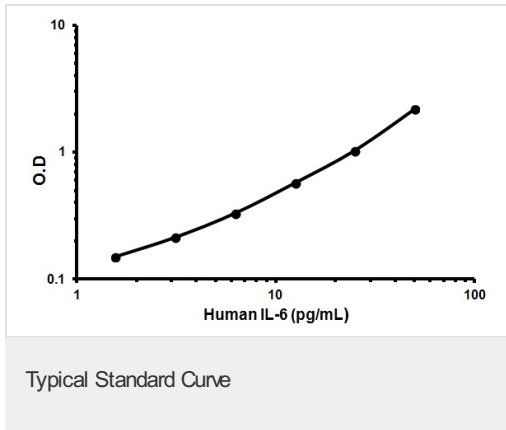
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

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<sup>-1</sup>; 6 h) or PMA (10 ng x mL<sup>-1</sup>; 24 h) and LPS (background signal subtracted) (duplicates +/- SD).



Representative Standard Curve using ab46042

**Please note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

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