abcam

Product datasheet

Human IL-6 ELISA Kit, Fluorescent ab229434

Recombinant CatchPoint SimpleStep ELISA

6 References 5 Images

Overview

Product name Human IL-6 ELISA Kit, Fluorescent

Detection method Fluorescent

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Sample	5			2.1%

Inter-assay

Sample	n	Mean	SD	CV%
Sample	3			2.3%

Sample type Cell culture supernatant, Serum, Hep Plasma, EDTA Plasma, Cit plasma

Assay type Sandwich (quantitative)

Sensitivity 0.4 pg/ml

Range 0.97 pg/ml - 2000 pg/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Serum	82	77% - 84%
Cell culture media	100	97% - 103%
EDTA Plasma	82	80% - 85%
Cit plasma	84	81% - 85%

Assay time 1h 30m

Assay duration One step assay

Species reactivity **Reacts with:** Human

Product overview

IL-6 *in vitro* CatchPoint SimpleStep ELISA (Enzyme-Linked Immunosorbent Assay) kit is designed for the quantitative measurement of IL-6 protein in human serum, plasma, and cell culture supernatant.

This CatchPoint SimpleStep ELISA kit has been **optimized for Molecular Devices Microplate Readers**. Click **here** for a list of recommended Microplate Readers.
If using a Molecular Devices' plate reader supported by SoftMax® Pro software, a preconfigured protocol for these CatchPoint SimpleStep ELISA Kits is available with all the protocol and analysis settings at **www.softmaxpro.org**.

The CatchPoint SimpleStep ELISA employs an affinity tag labeled capture antibody and a reporter conjugated detector antibody which immunocapture the sample analyte in solution. This entire complex (capture antibody/analyte/detector antibody) is in turn immobilized via immunoaffinity of an anti-tag antibody coating the well. To perform the assay, samples or standards are added to the wells, followed by the antibody mix. After incubation, the wells are washed to remove unbound material. CatchPoint HRP Development Solution containing the Stoplight Red Substrate is added. During incubation, the substrate is catalyzed by HRP generating a fluorescent product. Signal is generated proportionally to the amount of bound analyte and the intensity is measured in a fluorescence plater reader at 530/570/590 nm Excitation/Cutoff/Emission.

Notes

Interleukin 6 (IL-6) is a cytokine with a wide variety of biological functions. It is a potent inducer of the acute phase response and plays an essential role in the final differentiation of B-cells into Ig-secreting cells. IL-6 is involved in lymphocyte and monocyte differentiation and IL-6 induces myeloma and plasmacytoma growth as well as nerve cells differentiation. B-cells, T-cells, hepatocytes, hematopoietic progenitor cells and cells of the CNS are all responsive to IL-6. IL-6 is discharged into the bloodstream after muscle contraction and acts to increase the breakdown of fats and to improve insulin resistance.

Platform

Pre-coated microplate (12 x 8 well strips)

Properties

Storage instructions

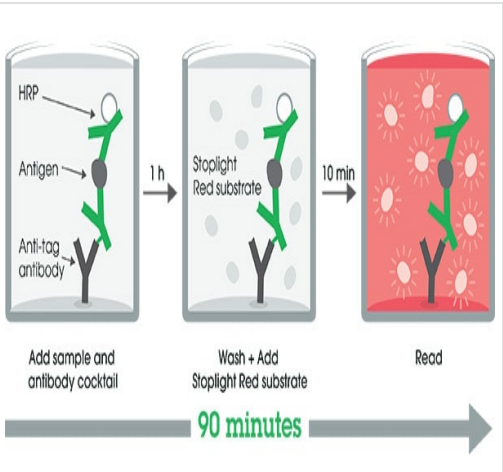
Store at +4°C. Please refer to protocols.

Components	1 x 96 tests
100X Stoplight Red Substrate	1 x 120µl
10X Human IL-6 Capture Antibody	1 vial
10X Human IL-6 Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
500X Hydrogen Peroxide (H_2O_2, 3%)	1 x 50µl
Antibody Diluent 5BI	1 x 6ml
Human IL-6 Protein Lyophilized Recombinant Protein	2 vials

Components	1 x 96 tests
Plate Seals	1 unit
Sample Diluent NS (ab193972)	1 x 50ml
SimpleStep Pre-Coated Black 96-Well Microplate	1 unit
Stoplight Red Substrate Buffer	1 x 12ml

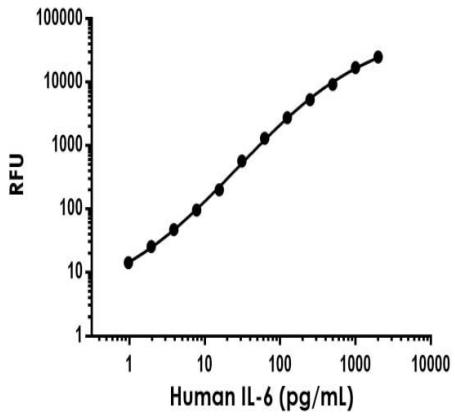
Function	Cytokine with a wide variety of biological functions. It is a potent inducer of the acute phase response. Plays an essential role in the final differentiation of B-cells into Ig-secreting cells Involved in lymphocyte and monocyte differentiation. It induces myeloma and plasmacytoma growth and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



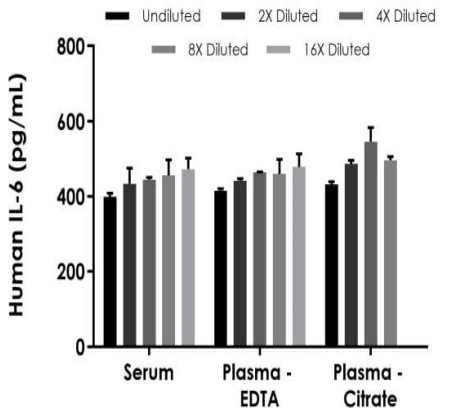
Other - Human IL-6 ELISA Kit, Fluorescent (ab229434)

SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



Example of human IL-6 standard curve in Sample Diluent NS

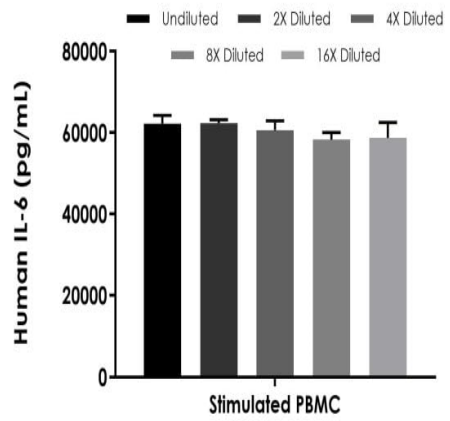
Background-subtracted data values (mean +/- SD) are graphed.



Interpolated concentrations of spike IL-6 in Human serum and plasma samples

The concentrations of IL-6 were measured in duplicates, interpolated from the IL-6 standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 50%, plasma (EDTA) 50%, and plasma (citrate) 25%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2).

Serum from twenty individual healthy Human male and female donors were measured in duplicate. Interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). No detectable levels of IL-6 were measured.



Interpolated concentrations of native IL-6 in Human Peripheral Blood Monocyte (PBMC) cell culture supernatant samples

The concentrations of IL-6 were measured in duplicates, interpolated from the IL-6 standard curves and corrected for sample dilution. Undiluted samples are as follows: Stimulated PBMC Cell culture supernatant 1:200. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean IL-6 concentration was determined to be 60,443 pg/mL in stimulated PBMC cell culture supernatant, and undetectable in unstimulated and media controls.

Sandwich ELISA - Human IL-6 ELISA Kit, Fluorescent (ab229434)

To learn more about the advantages of recombinant antibodies see **here**.

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