abcam

Product datasheet

Human IL-10 ELISA Kit (Interleukin-10) ab185986

KO VALIDATED Recombinant SimpleStep ELISA

19 References 11 Images

Overview

Product name Human IL-10 ELISA Kit (Interleukin-10)

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
supernatant	5			5.2%

Inter-assay

Sample	n	Mean	SD	CV%
supernatant	3			3.2%

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

Assay type Sandwich (quantitative)

Sensitivity 1.4 pg/ml

Range 9.4 pg/ml - 3000 pg/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Cell culture supernatant	108	105% - 111%
Serum	109	108% - 112%
Cell culture media	106	102% - 111%
Hep Plasma	116	113% - 117%
EDTA Plasma	109	103% - 118%
Cit plasma	111	105% - 119%

Assay time 1h 30m

Assay duration One step assay

Species reactivity **Reacts with:** Human
Does not react with: Cow

Product overview Human IL-10 ELISA Kit (Interleukin-10) (ab185986) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of IL-10 (Interleukin-10) protein in cell culture supernatant, cit plasma, edta plasma, hep plasma, and serum. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human IL-10 (Interleukin-10) with 1.4 pg/ml sensitivity.

SimpleStep ELISA® technology employs capture antibodies conjugated to an affinity tag that is recognized by the monoclonal antibody used to coat our SimpleStep ELISA® plates. This approach to sandwich ELISA allows the formation of the antibody-analyte sandwich complex in a single step, significantly reducing assay time. See the SimpleStep ELISA® protocol summary in the image section for further details. Our SimpleStep ELISA® technology provides several benefits:

- Single-wash protocol reduces assay time to 90 minutes or less
- High sensitivity, specificity and reproducibility from superior antibodies
- Fully validated in biological samples
- 96-wells plate breakable into 12 x 8 wells strips

A 384-well SimpleStep ELISA® microplate (**ab203359**) is available to use as an alternative to the 96-well microplate provided with SimpleStep ELISA® kits.

Notes Interleukin 10 (IL-10) is a cytokine involved in immunoregulation through the promotion of Th2 response and inhibition of Th1 responses. It is produced by cells of hematopoietic origin, keratinocytes, placental cytotrophoblasts, and hepatic stellate cells.

Platform Pre-coated microplate (12 x 8 well strips)

Properties

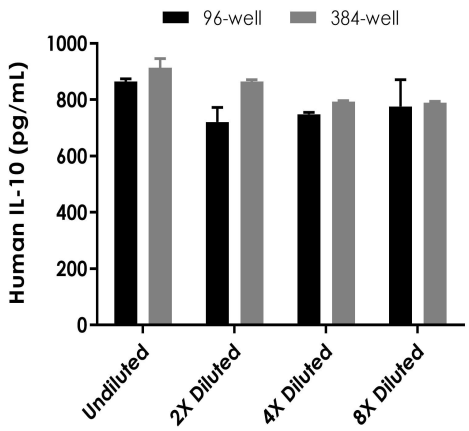
Storage instructions Store at +4°C. Please refer to protocols.

Components	1 x 96 tests	1 x 384 tests	1 x 96 tests
10X Human IL-10 Capture Antibody	1 x 600µl	1 x 600µl	1 x 600µl
10X Human IL-10 Detector Antibody	1 x 600µl	1 x 600µl	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml	1 x 20ml	1 x 20ml
384 well CaptSure™ microplates	0 x 0 unit	1 unit	0 x 0 unit
50X Cell Extraction Enhancer Solution (ab193971)	1 x 1ml	6 x 1ml	1 x 1ml
Antibody Diluent CPI2	1 x 6ml	1 x 6ml	1 x 6ml
Human IL-10 Lyophilized Recombinant Protein	2 vials	2 vials	2 vials

Components	1 x 96 tests	1 x 384 tests	1 x 96 tests
Plate Seals	1 unit	1 unit	1 unit
Sample Diluent NBP	1 x 20ml	1 x 20ml	1 x 20ml
Sample Diluent NS (ab193972)	1 x 50ml	1 x 250ml	1 x 50ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit	0 x 0 unit	1 unit
Stop Solution	1 x 12ml	2 x 12ml	1 x 12ml
TMB Development Solution	1 x 12ml	2 x 12ml	1 x 12ml

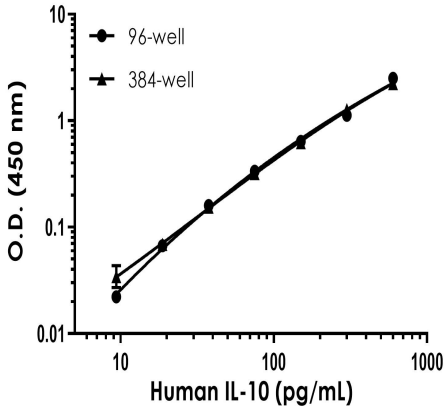
Function	Inhibits the synthesis of a number of cytokines, including IFN-gamma, IL-2, IL-3, TNF and GM-CSF produced by activated macrophages and by helper T-cells.
Tissue specificity	Produced by a variety of cell lines, including T-cells, macrophages, mast cells and other cell types.
Sequence similarities	Belongs to the IL-10 family.
Cellular localization	Secreted.

Images



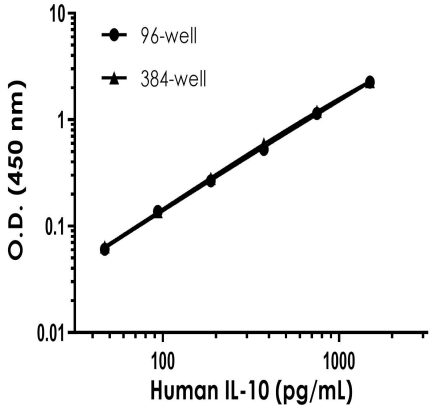
Sandwich ELISA - Human IL-10 ELISA Kit (Interleukin-10) (ab185986)

Interpolated concentration of native IL-10 was measured in duplicate at different sample concentrations in 96-well vs. 384-well plates. Undiluted samples are 50% stimulated PBMC supernatant (1.5% PHA). The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). Sample dilutions are made in Sample Diluent NS + 1X Enhancer.



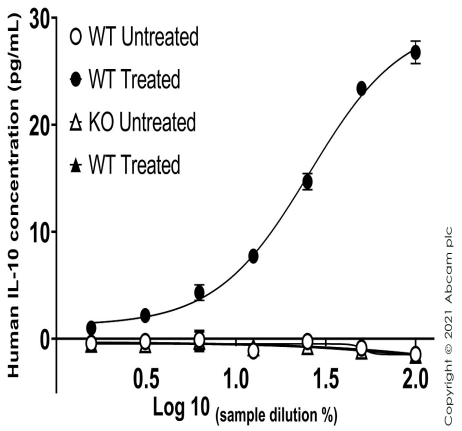
Sandwich ELISA - Human IL-10 ELISA Kit (Interleukin-10) (ab185986)

Example of human IL-10 standard curve in 96-well vs. 384-well plate. Background-subtracted data values (mean +/- SD) are graphed.



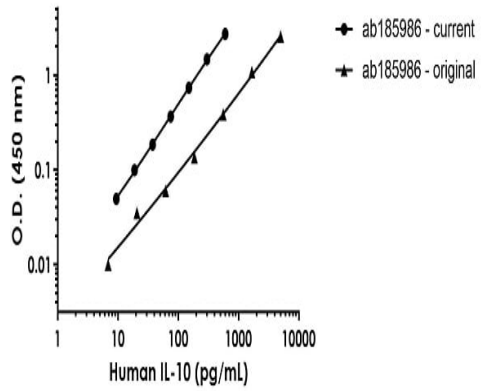
Sandwich ELISA - Human IL-10 ELISA Kit (Interleukin-10) (ab185986)

Example of human IL-10 standard curve in 96-well vs. 384-well plate. Background-subtracted data values (mean +/- SD) are graphed.



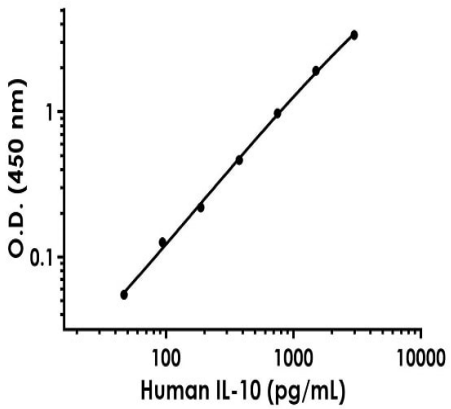
KO data

Human IL-10 concentration was interpolated from the IL-10 standard curve. Supernatants from cell culture samples were serially diluted and assessed by the Human IL-10 ELISA Kit (Interleukin-10) (ab185986). Wild-type and IL-10 knockout THP-1 (**ab273763**) vehicle control and PMA (100 ng/mL, 56 h) + LPS (1 µg/mL, 24 h) treated cells were assessed in duplicate (n=2). Data are represented as the mean and error bars represent standard deviation."



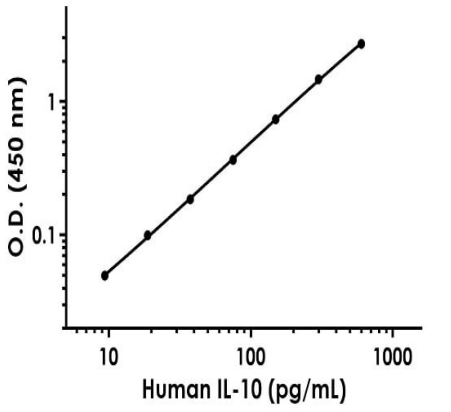
Human IL-10 Standard Curve Comparison

Standard Curve comparison between human IL-10 current (new) SimpleStep ELISA kit and original ELISA kit. The current SimpleStep ELISA kit shows increased sensitivity.



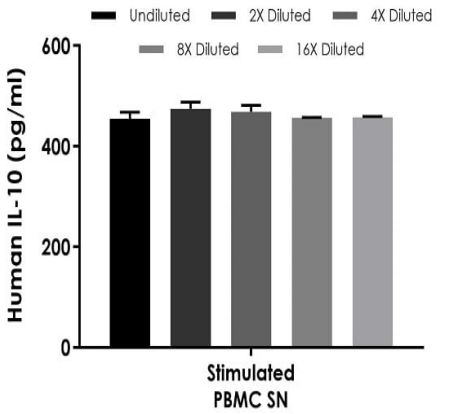
Example of human IL-10 standard curve in Sample Diluent 50BP + Enhancer.

The IL-10 standard curve was prepared as described in Section 10. Raw data values are shown in the table. Background-subtracted data values (mean +/- SD) are graphed.



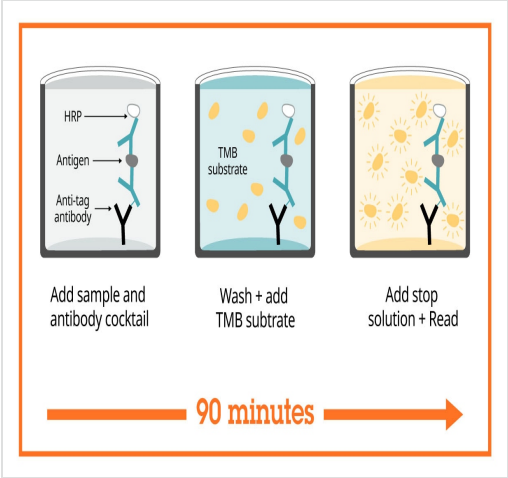
Example of human IL-10 standard curve in Sample Diluent NS + Enhancer.

The IL-10 standard curve was prepared as described in Section 10. Raw data values are shown in the table. Background-subtracted data values (mean +/- SD) are graphed.



Interpolated concentrations of native IL-10 in human PBMC cell culture supernatant samples.

The concentrations of IL-10 were measured in duplicates, interpolated from the IL-10 standard curves and corrected for sample dilution. Undiluted samples are as follows: stimulated PBMC cell culture supernatant 50%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean IL-10 concentration was determined to be 462 pg/ml in stimulated PBMC cell culture supernatant. PBMC cell culture supernatant samples were stimulated for 46 hours with 1.5% PHA. Unstimulated PBMC cell culture supernatant samples were also measured; all values were below the detectable range of the assay.

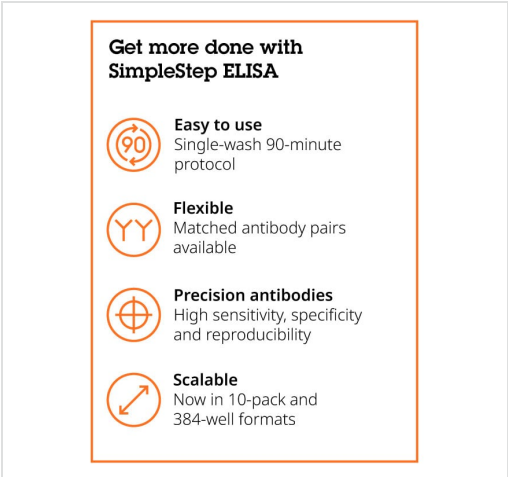


Sandwich ELISA - Human IL-10 ELISA Kit (Interleukin-10) (ab185986)

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.

Sandwich ELISA - Human IL-10 ELISA Kit (Interleukin-10) (ab185986)

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



Sandwich ELISA - Human IL-10 ELISA Kit (Interleukin-10) (ab185986)

To learn more about the advantages of SimpleStep ELISA® kits see **here**.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit **https://www.abcam.com/abpromise** or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors