

## Product datasheet

# Human IP-10 ELISA Kit ab173194

SimpleStep ELISA

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### Overview

**Product name** Human IP-10 ELISA Kit

**Detection method** Colorimetric

**Precision**

Intra-assay

Sample	n	Mean	SD	CV%
PBMC media	9			5.1%

Inter-assay

Sample	n	Mean	SD	CV%
PBMC media	3			11.1%

**Sample type**

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

**Assay type**

Sandwich (quantitative)

**Sensitivity**

2.6 pg/ml

**Range**

12.5 pg/ml - 800 pg/ml

**Recovery**

Sample specific recovery

Sample type	Average %	Range
Serum	103	102% - 105%
Cell culture media	96	95% - 98%
Hep Plasma	86	82% - 88%
EDTA Plasma	101	99% - 103%
Cit plasma	96	93% - 98%

**Assay time**

1h 30m

**Assay duration**

One step assay

## Species reactivity

**Reacts with:** Human

## Product overview

Human IP-10 (CXCL10) ELISA (ab173194) kit is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of IP-10 protein in human serum and plasma samples. It uses our proprietary SimpleStep ELISA® technology. Quantitate human IP-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

C-X-C motif chemokine 10 (CXCL10 or IP-10) is a small 10.8kD protein that is secreted by several cell types in response to interferon-gamma (IFN $\gamma$ ). These cell types include monocytes, endothelial cells and fibroblasts. Upon secretion, CXCL10 is cleaved into an 8.7kD biologically active protein to function in chemotaxis for T-cells, NK cells, monocytes/macrophages and dendritic cells. In addition, CXCL10 has antitumor activity through the inhibition of bone marrow colony formation and angiogenesis. CXCL10 elicits its effects by binding to the cell surface chemokine receptor 3 (CXCR3).

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## Platform

Microplate

## Properties

### Storage instructions

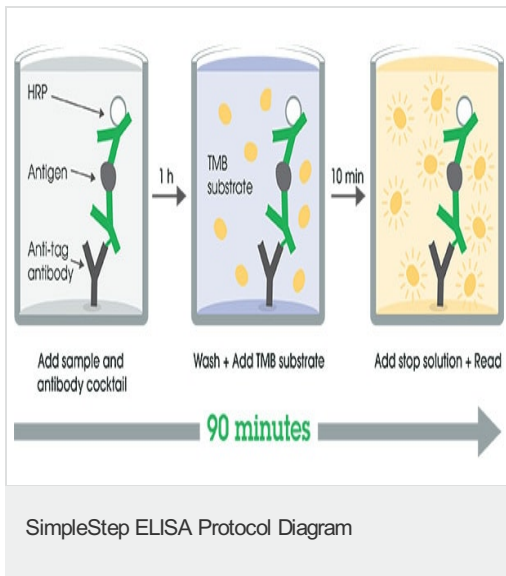
Store at +4°C. Please refer to protocols.

Components	1 x 96 tests
10X Human IP-10 Capture Antibody	1 x 600 $\mu$ l
10X Human IP-10 Detector Antibody	1 x 600 $\mu$ l
10X Wash Buffer PT (ab206977)	1 x 20ml
Antibody Diluent CPI - HAMA Blocker (ab193969)	1 x 6ml
Human IP-10 Lyophilized Recombinant Protein	2 vials

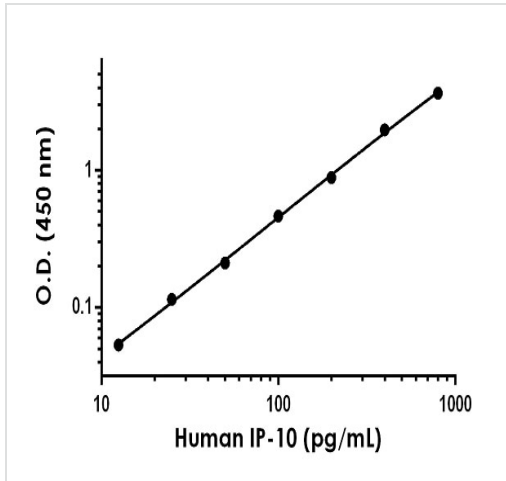
Components	1 x 96 tests
Plate Seals	1 unit
Sample Diluent NS (ab193972)	1 x 50ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

<b>Function</b>	Chemotactic for monocytes and T-lymphocytes. Binds to CXCR3.
<b>Sequence similarities</b>	Belongs to the intercrine alpha (chemokine CxC) family.
<b>Post-translational modifications</b>	CXCL10(1-73) is produced by proteolytic cleavage after secretion from keratinocytes.
<b>Cellular localization</b>	Secreted.

## Images

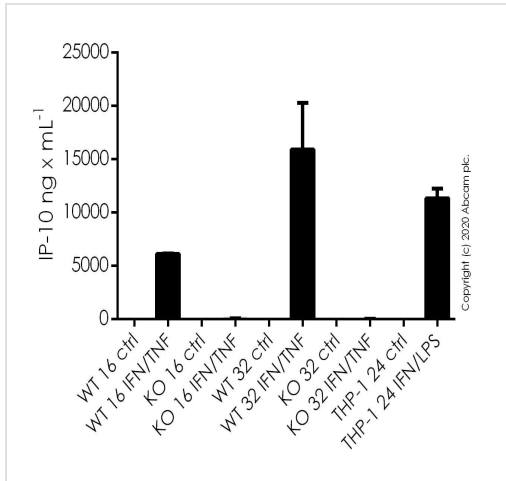


SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



Example of IP-10 beta standard curve prepared in Sample Diluent NS.

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

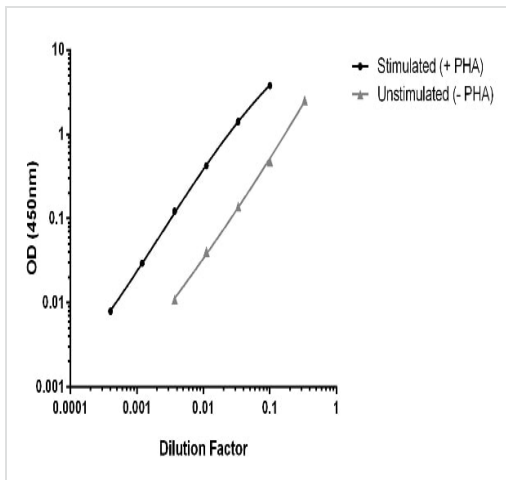


Human IP-10 ELISA kit (ab173194)

Wild-type A549 control cells or IP-10 knockout A549 cells ([ab266969](#)), grown to 40% confluency, were stimulated with Recombinant Human Interferon gamma protein ([ab259377](#)) at 100 ng/ml and Recombinant human TNF alpha protein ([ab259410](#)) at 10 ng/ml or vehicle control for 16 or 32 hours.

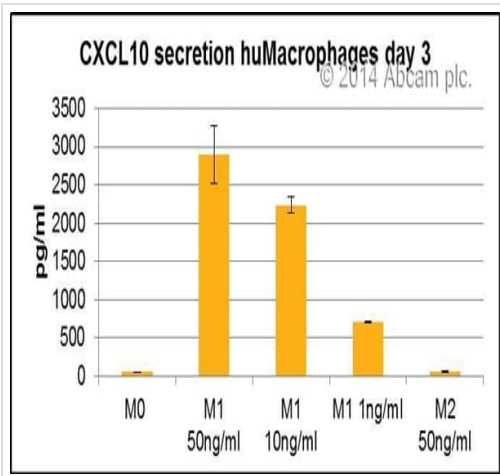
THP-1 cells, grown to 40% confluency, were stimulated with Recombinant Human Interferon gamma protein ([ab259377](#)) at 200 ng/ml and LPS at 50 ng/mL or vehicle control for 24 hours.

The concentrations of IP-10 (CXCL10) in cell culture supernatants were measured in duplicate and interpolated from the IP-10 standard curves. IP-10 from vehicle control samples were measured in undiluted supernatants and the treated samples were diluted 200 times. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2).



Typical ELISA data

Titration of PBMC conditioned media (+/- PHA) within the working range of the assay. Background subtracted data from triplicate measurements are plotted.



Data shows specific secretion of IP-10 (CXCL10) by human macrophages differentiated in culture for 3 days in a dose response to M1 (MCSF + IFN $\gamma$ ).

Sandwich ELISA \_ IP-10 (CXCL10) Human  
 SimpleStep ELISA™ Kit (ab173194)  
 This image is courtesy of an anonymous Abreview

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