

## Product datasheet

# Human IP-10 ELISA Kit ab173194

SimpleStep ELISA<sup>®</sup>

★★★★★ 1 Abreviews 3 Images

### 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, Heparin Plasma, EDTA Plasma, Citrate Plasma

**Assay type** Sandwich (quantitative)

**Sensitivity** 1.4 pg/ml

**Range** 1.4 pg/ml - 1000 pg/ml

**Recovery**

Sample specific recovery

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

**Assay time** 1h 30m

**Assay duration** One step assay

**Species reactivity** **Reacts with:** Human

**Product overview** IP-10 (CXCL10) human *in vitro* SimpleStep ELISA<sup>®</sup> (Enzyme-Linked Immunosorbent Assay) kit is designed for the accurate quantitative measurement of IP-10 (CXCL10) protein in human serum and plasma samples.

The SimpleStep ELISA<sup>®</sup> 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. TMB substrate is added and during incubation is catalyzed by HRP, generating blue coloration. This reaction is then stopped by addition of Stop Solution completing any color change from blue to yellow. Signal is generated proportionally to the amount of bound analyte and the intensity is measured at 450 nm. Optionally, instead of the endpoint reading, development of TMB can be recorded kinetically at 600 nm.

**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).

**Tested applications** **Suitable for:** Sandwich ELISA

**Platform** Microplate

## Properties

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

Components	1 x 96 tests
10X IP-10 Capture Antibody	1 x 600 $\mu$ l
10X IP-10 Detector Antibody	1 x 600 $\mu$ l
10X Wash Buffer PT ( <a href="#">ab206977</a> )	1 x 20ml
Antibody Diluent CPI - HAMA Blocker ( <a href="#">ab193969</a> )	1 x 6ml
IP-10 Human Lyophilized Recombinant Protein	2 x 1.25ng
Plate Seals	1 unit
Sample Diluent NS ( <a href="#">ab193972</a> )	1 x 50ml
SimpleStep Pre-Coated 96-Well Microplate ( <a href="#">ab206978</a> )	1 unit
Stop Solution	1 x 12ml

<b>Components</b>	<b>1 x 96 tests</b>
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.

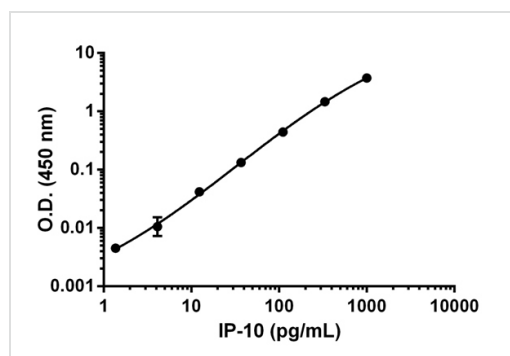
## Applications

Our [Abpromise guarantee](#) covers the use of **ab173194** in the following tested applications.

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

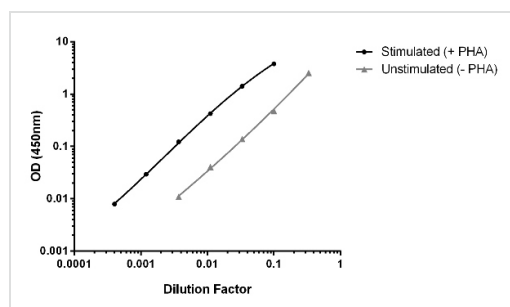
Application	Abreviews	Notes
Sandwich ELISA		Use at an assay dependent concentration.

## Images



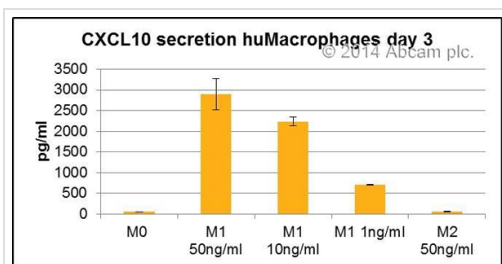
Typical Standard Curve

Example IP-10/CXCL10 standard curve. Background-subtracted data values (mean  $\pm$  SD) are graphed. A new standard curve must be generated for each assay performed.



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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