

Human IL-8 ELISA Kit, Fluorescent ab229402

Recombinant CatchPoint® SimpleStep ELISA®

3 References 7 Images

Overview

Product name Human IL-8 ELISA Kit, Fluorescent

Detection method Fluorescent

Precision Intra-assay

Sample	n	Mean	SD	CV%
Supernatant	5			1.8%

Inter-assay

Sample	n	Mean	SD	CV%
Supernatant	3			7.5%

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

Assay type Sandwich (quantitative)

Sensitivity 0.45 pg/ml

Range 0.49 pg/ml - 2000 pg/ml

Recovery Sample specific recovery

Sample type	Average %	Range
Serum	99	93% - 103%
Cell culture media	101	98% - 104%
Hep Plasma	87	82% - 91%
EDTA Plasma	88	84% - 92%
Cit plasma	86	83% - 90%

Assay time 1h 30m

Assay duration One step assay

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

IL-8 *in vitro* CatchPoint SimpleStep ELISA (Enzyme-Linked Immunosorbent Assay) kit is designed for the quantitative measurement of IL-8 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 plate reader at 530/570/590 nm Excitation/Cutoff/Emission.

Notes

IL-8 is a chemotactic factor that attracts neutrophils, basophils, and T cells, but not monocytes. It is also involved in neutrophil activation. It is released from several cell types in response to an inflammatory stimulus. IL-8(6-77) has a 5-10-fold higher activity on neutrophil activation, IL-8(5-77) has increased activity on neutrophil activation and IL-8(7-77) has a higher affinity to receptors CXCR1 and CXCR2 as compared to IL-8(1-77), respectively

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-8 Capture Antibody	1 x 600µl
10X Human IL-8 Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
500X Hydrogen Peroxide (H2O2, 3%)	1 x 50µl
Antibody Diluent 4BI	1 x 6ml
Human IL-8 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

IL-8 is a chemotactic factor that attracts neutrophils, basophils, and T-cells, but not monocytes. It is also involved in neutrophil activation. It is released from several cell types in response to an inflammatory stimulus. IL-8(6-77) has a 5-10-fold higher activity on neutrophil activation, IL-8(5-77) has increased activity on neutrophil activation and IL-8(7-77) has a higher affinity to receptors CXCR1 and CXCR2 as compared to IL-8(1-77), respectively.

Sequence similarities

Belongs to the intercrine alpha (chemokine CxC) family.

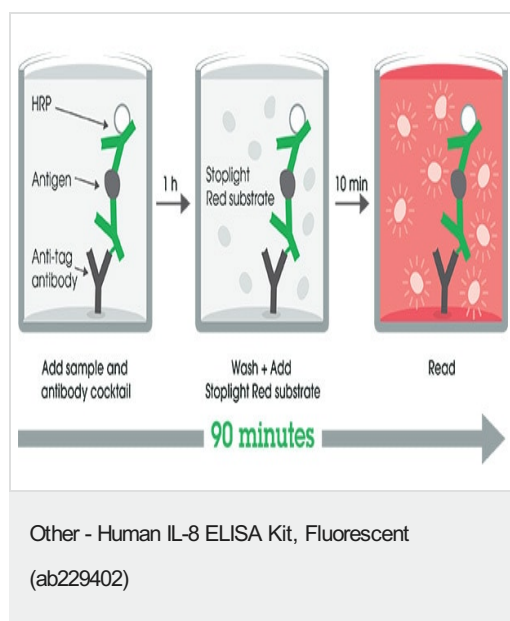
Post-translational modifications

Several N-terminal processed forms are produced by proteolytic cleavage after secretion from at least peripheral blood monocytes, leukocytes and endothelial cells. In general, IL-8(1-77) is referred to as interleukin-8. IL-8(6-77) is the most prominent form.

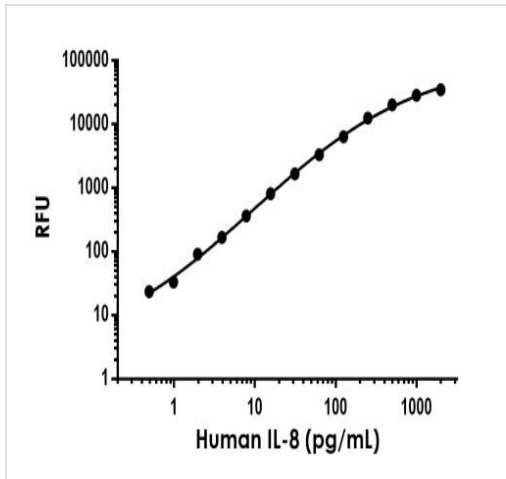
Cellular localization

Secreted.

Images

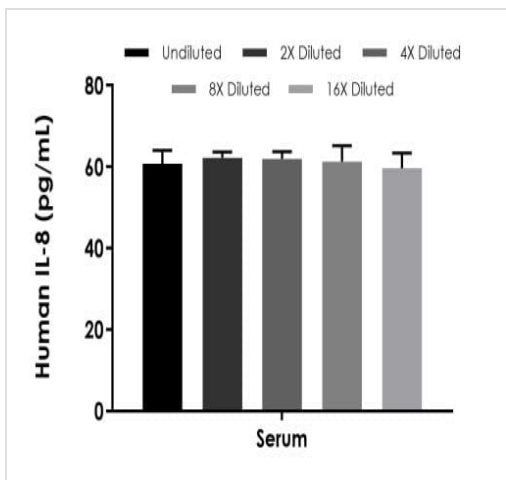


SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



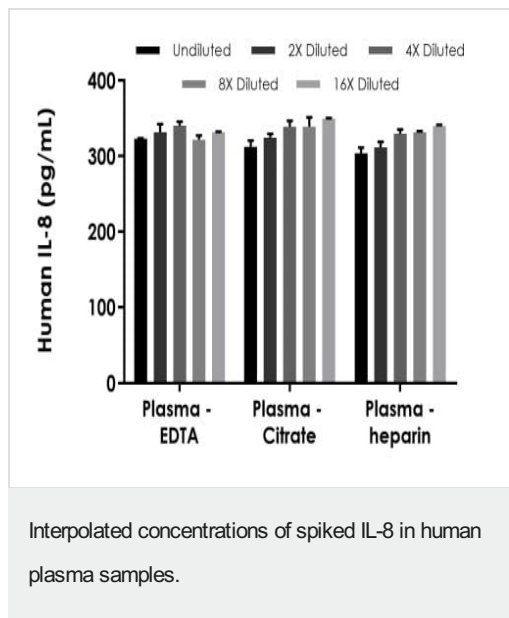
Background-subtracted data values (mean \pm SD) are graphed.

Example of human IL-8 standard curve in Sample Diluent NS.

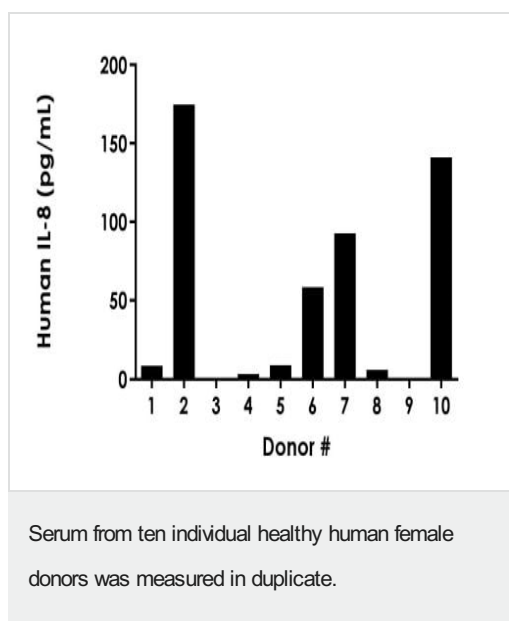


Interpolated concentrations of native IL-8 in human serum.

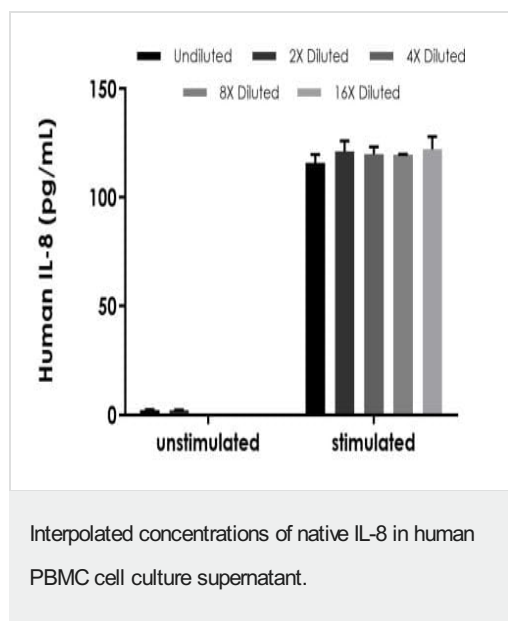
The concentrations of IL-8 were measured in duplicates, interpolated from the IL-8 standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 50%. The interpolated dilution factor corrected values are plotted (mean \pm SD, $n=2$). The mean IL-8 concentration was determined to be 63.2 pg/mL in serum.



The concentrations of IL-8 were measured in duplicates, interpolated from the IL-8 standard curves and corrected for sample dilution. Undiluted samples are as follows: plasma (EDTA) 50%, plasma (citrate) 50%, and plasma (heparin) 50%. The interpolated dilution factor corrected values are plotted (mean \pm SD, $n=2$).



Interpolated dilution factor corrected values are plotted (mean \pm SD, $n=2$). The mean IL-8 concentration was determined to be 61.6 pg/mL with a range of 62 – 174.9 pg/mL; two individuals (Donor #3 and Donor #9) measured below the minimal detectable dose.



The concentrations of IL-8 were measured in duplicates, interpolated from the IL-8 standard curves and corrected for sample dilution. Undiluted samples are as follows: unstimulated 1:400 and stimulated 1:400. The interpolated dilution factor corrected values are plotted (mean \pm SD, $n=2$). Measured values were interpolated from the IL-8 Standard Curve diluted in Sample Diluent NS and corrected for dilution factor. The mean IL-8 concentration was determined to be 2.2 ng/mL in unstimulated, 119.7 ng/mL in stimulated, and undetectable in media.

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Sandwich ELISA - Human IL-8 ELISA Kit,
Fluorescent (ab229402)

To learn more about the advantages of recombinant antibodies see [here](#).

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