

Human MIP1α ELISA Kit ab214569

Recombinant SimpleStep ELISA[®]

1 References 7 Images

Overview

Product name	Human MIP1a ELISA Kit				
Detection method	Colorimetric				
Precision	Intra-assay				
	Sample	n	Mean	SD	CV%
	Overall	5			1.9%
	Inter-assay				
	Sample	n	Mean	SD	CV%
	Overall	3			7.2%
Sample type	Cell culture supernatant, Serum, Hep Plasma, EDTA Plasma, Cit plasma				
Assay type	Sandwich (quantitative)				
Sensitivity	0.4 pg/ml				
Range	1.56 pg/ml - 100 pg/ml				
Recovery	Sample specific recovery				
	Sample type		Average %		Range
	Cell culture supernatant		101		100% - 102%
	Serum		99		96% - 101%
	Hep Plasma		97		94% - 100%
	EDTA Plasma		100		92% - 105%
	Cit plasma		95		91% - 101%
Assay time	1h 30m				
Assay duration	One step assay				

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

Human MIP1a ELISA Kit (ab214569) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of MIP1a protein in cell culture supernatant, serum, cit plasma, edta plasma, and hep plasma. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human MIP1a with 0.4 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

Macrophage Inflammatory Protein 1-alpha (MIP1a, also known as CCL3) is a monokine with both inflammatory and chemokine properties. MIP-1-alpha can bind to CCR1, CCR4 and CCR5. In addition, it is one of the major HIV-suppressive factors produced by CD8+ T-cells. Recombinant MIP-1-alpha induces a dose-dependent inhibition of different strains of HIV-1, HIV-2, and simian immunodeficiency virus (SV).

Platform

Pre-coated microplate (12 x 8 well strips)

Properties**Storage instructions**

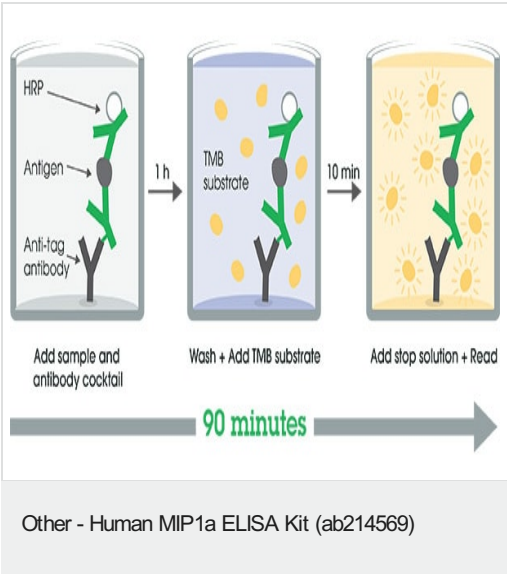
Store at +4°C. Please refer to protocols.

Components	1 x 96 tests
10X Wash Buffer PT (ab206977)	1 x 20ml
Antibody Diluent CPI - HAMA Blocker (ab193969)	1 x 6ml
10X Human MIP1a Capture Antibody	1 x 600µl
10X Human MIP1a Detector Antibody	1 x 600µl
Human MIP1a Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Sample Diluent NS (ab193972)	1 x 50ml

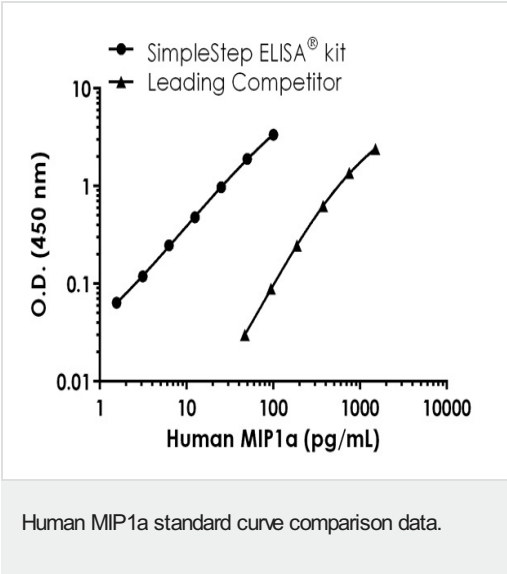
Components	1 x 96 tests
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

Function	Monokine with inflammatory and chemokinetic properties. Binds to CCR1, CCR4 and CCR5. One of the major HIV-suppressive factors produced by CD8+ T-cells. Recombinant MIP-1-alpha induces a dose-dependent inhibition of different strains of HIV-1, HIV-2, and simian immunodeficiency virus (SV).
Sequence similarities	Belongs to the intercrine beta (chemokine CC) family.
Post-translational modifications	N-terminal processed form LD78-alpha(4-69) is produced by proteolytic cleavage after secretion from HTLV1-transformed T-cells.
Cellular localization	Secreted.

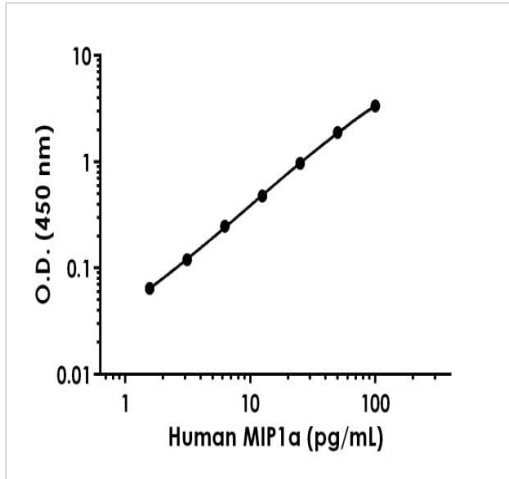
Images



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.

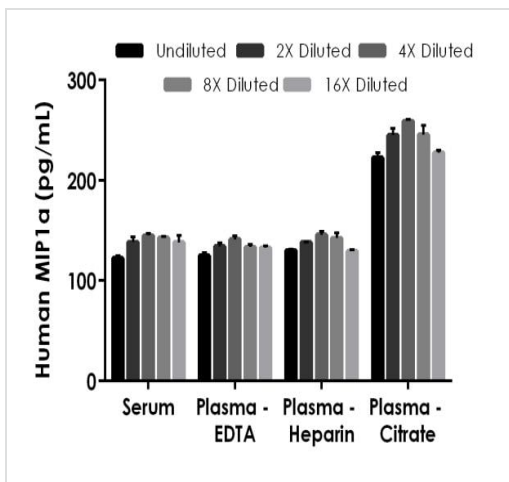


Standard curve comparison between human MIP1a SimpleStep ELISA[®] kit and traditional ELISA kit from leading competitor. SimpleStep ELISA kit shows a 24-fold increase in sensitivity.



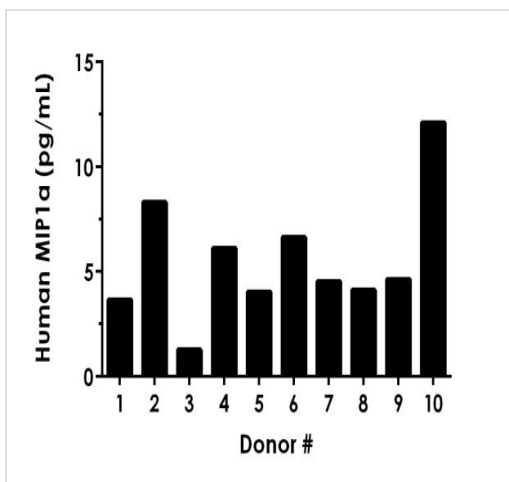
Example of MIP1a standard curve.

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



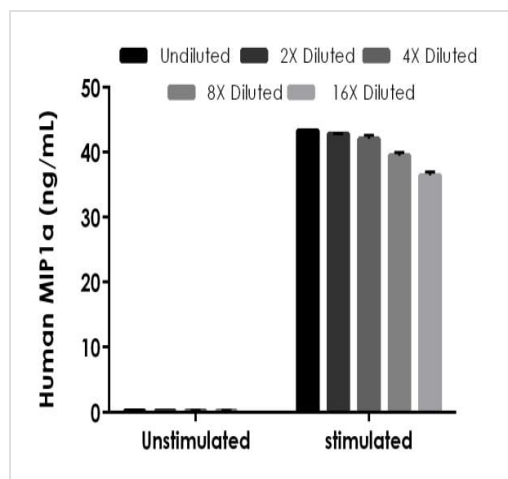
Interpolated concentrations of spiked MIP1a in human serum and plasma samples.

The concentrations of MIP1a were measured in duplicates, interpolated from the MIP1a standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 50%, plasma (EDTA) 50%, plasma (heparin) 50% and plasma (citrate) 25%. The interpolated dilution factor corrected values are plotted (mean \pm SD, $n=2$).



Serum from ten individual healthy human female donors was measured in duplicate.

Interpolated dilution factor corrected values are plotted (mean \pm SD, $n=2$). The mean MIP1a concentration was determined to be 5.5 pg/mL with a range of 1.3 – 12.1 pg/mL.



Interpolated concentrations of native MIP1α in human peripheral blood monocyte (PBMC) cell culture supernatant samples.

The concentrations of MIP1α were measured in duplicates, interpolated from the MIP1α standard curves and corrected for sample dilution. Undiluted samples are as follows: unstimulated 6.35% and stimulated 0.2%. The interpolated dilution factor corrected values are plotted (mean \pm SD, n=2). The mean MIP1α concentration was determined to be 0.241 ng/mL in unstimulated PBMC cell culture supernatant and 40.8 ng/mL in stimulated.

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Recombinant technology

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Confirmed specificity

Ethical standards compliant
Animal-free production

Sandwich ELISA - Human MIP1α ELISA Kit
(ab214569)

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

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