abcam

Product datasheet

Mouse MIP1α ELISA Kit (CCL3) ab200017

SimpleStep ELISA

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Overview

Product name Mouse MIP1a ELISA Kit (CCL3)

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Overall	5			1.44%

Inter-assay

Sample	n	Mean	SD	CV%
Overall	3			1.97%

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

Assay type Sandwich (quantitative)

Sensitivity 1.95 pg/ml

Range 15.6 pg/ml - 1000 pg/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Urine	81	75% - 85%
Serum	81	80% - 83%
Cell culture media	87	91% - 93%
Cit plasma	82	78% - 86%
serum free media	95	93% - 96%

Assay time 1h 30m

Assay duration One step assay

Species reactivity

Reacts with: Mouse
Does not react with: Goat, Cow, Pig

Product overview

Mouse MIP1a ELISA Kit (CCL3) (ab200017) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of MIP1a (CCL3) protein in cell culture supernatant, cit plasma, edta plasma, hep plasma, serum, and urine. It uses our proprietary SimpleStep ELISA® technology. Quantitate Mouse MIP1a (CCL3) with 1.95 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 C-C motif chemokine 3 or CCL3) is a secreted monokine with inflammatory and chemokinetic properties. Mature MIP1a is 68 amino acids after cleavage of a 23 amino acid signal peptide. MIP1a can be induced in a variety of cell types and for immune and inflammatory response. In humans, MIP1a is a major HIV-suppressive factor produced by CD8+ T cells. The standard protein in this kit is mature mouse MIP1a.

Platform

Microplate (12 x 8 well strips)

Properties

Storage instructions

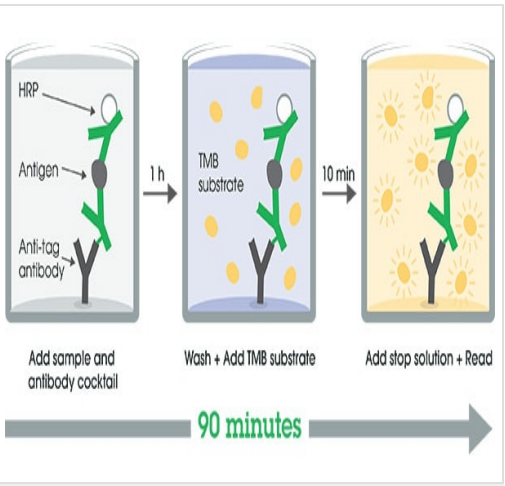
Store at +4°C. Please refer to protocols.

Components	1 x 96 tests
10X Mouse MIP1a Capture Antibody	1 x 600µl
10X Mouse MIP1a Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
Antibody Diluent 5BI	1 x 6ml
Mouse MIP1a Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit
Sample Diluent NS (ab193972)	1 x 50ml

Components	1 x 96 tests
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

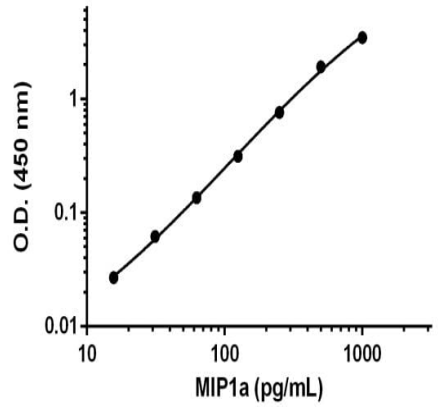
Function	Monokine with inflammatory and chemokinetic properties. Binds to CCR1, CCR4 and CCR5. One of the major HIV-suppressive factors produced by CD8+ T-cells. Recombinant MIP-1-alpha induces a dose-dependent inhibition of different strains of HIV-1, HIV-2, and simian immunodeficiency virus (SIV).
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



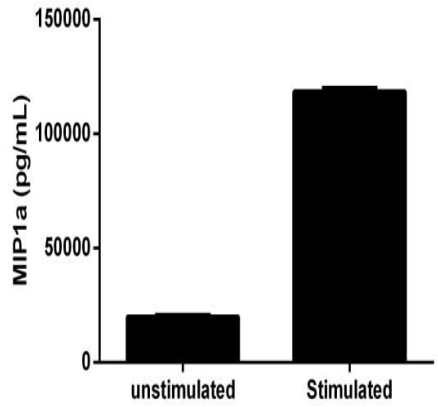
Other - Mouse MIP1a ELISA Kit (CCL3) (ab200017)

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.



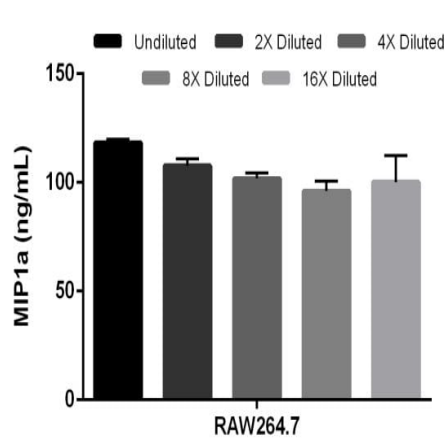
Example of MIP1a standard curve.

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



Comparison of secreted MIP1a in unstimulated and LPS-stimulated RAW264.7 cells.

RAW264.7 cells were grown in the absence (unstimulated) or presence of LPS (stimulated) for 2 days. MIP1a was measured in 2-fold diluted cell culture supernatants of unstimulated and LPS stimulated RAW264.7 and cell culture media. Measured values were interpolated from the MIP1a standard curve diluted in Sample Diluent NS and corrected for dilution factor. Mean of duplicate values +/-SD are graphed: 20 ng/mL unstimulated, 118 ng/mL stimulated, and undetectable in media.



Interpolated concentrations of MIP1a in RAW264.7 LPS Stimulated supernatant.

The concentrations of MIP1a were measured in duplicate and interpolated from the MIP1a standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean MIP1a concentration was determined to be 118 µg/mL in RAW264.7 LPS Stimulated supernatant.

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