

Product datasheet

Mouse MDC ELISA Kit (CCL22) ab204525

Recombinant SimpleStep ELISA

[1 References](#) [7 Images](#)

Overview

Product name Mouse MDC ELISA Kit (CCL22)

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Serum	5			3.4%

Inter-assay

Sample	n	Mean	SD	CV%
Serum	3			8.4%

Sample type Cell culture supernatant, Serum, Plasma

Assay type Sandwich (quantitative)

Sensitivity 1.4 pg/ml

Range 4.69 pg/ml - 300 pg/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Serum	109	96% - 123%
Cell culture media	108	95% - 116%
EDTA Plasma	106	97% - 116%
Cit plasma	107	100% - 112%

Assay time 1h 30m

Assay duration One step assay

Species reactivity **Reacts with:** Mouse

Does not react with: Goat, Cow, Pig

Product overview

Mouse MDC ELISA Kit (CCL22) (ab204525) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of MDC (CCL22) protein in cell culture supernatant, serum, and plasma. It uses our proprietary SimpleStep ELISA® technology. Quantitate Mouse MDC (CCL22) 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

Macrophage-derived chemokine (MDC), also known as C-C motif chemokine 22 (CCL22), is a secreted cytokine and member of the intercrine beta (chemokine CC) family. It is highly expressed in macrophage and in monocyte-derived dendritic cells. CCL22 is a chemotactic for monocytes, dendritic cells and natural killer cells and potent chemoattractant for chronically activated T-lymphocytes.

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 MDC Capture Antibody	1 x 600µl
10X Mouse MDC Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
Antibody Diluent 4BI	1 x 6ml
Mouse MDC Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit
Sample Diluent NS (ab193972)	1 x 50ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit

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

Function

May play a role in the trafficking of activated/effector T-lymphocytes to inflammatory sites and other aspects of activated T-lymphocyte physiology. Chemotactic for monocytes, dendritic cells and natural killer cells. Mild chemoattractant for primary activated T-lymphocytes and a potent chemoattractant for chronically activated T-lymphocytes but has no chemoattractant activity for neutrophils, eosinophils, and resting T-lymphocytes. Binds to CCR4. Processed forms MDC(3-69), MDC(5-69) and MDC(7-69) seem not be active.

Tissue specificity

Highly expressed in macrophage and in monocyte-derived dendritic cells, and thymus. Also found in lymph node, appendix, activated monocytes, resting and activated macrophages. Lower expression in lung and spleen. Very weak expression in small intestine. In lymph node expressed in a mature subset of Langerhans' cells (CD1a+ and CD83+). Expressed in Langerhans' cell histiocytosis but not in dermatopathic lymphadenopathy. Expressed in atopic dermatitis, allergic contact dermatitis skin, and psoriasis, in both the epidermis and dermis.

Sequence similarities

Belongs to the intercrine beta (chemokine CC) family.

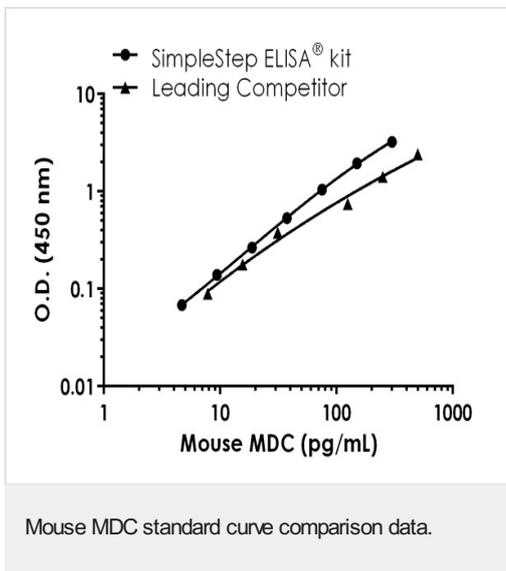
Post-translational modifications

The N-terminal processed forms MDC(3-69), MDC(5-69) and MDC(7-69) are produced by proteolytic cleavage after secretion from monocyte derived dendrocytes.

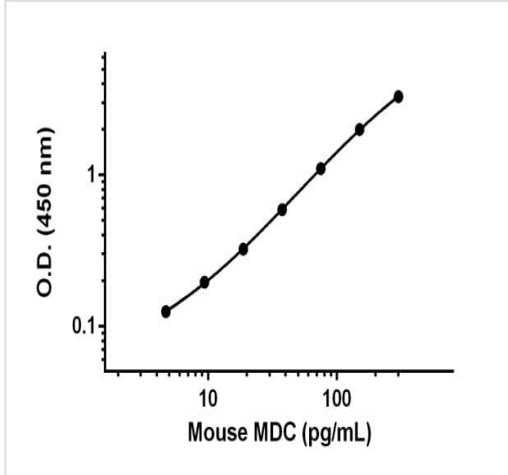
Cellular localization

Secreted.

Images

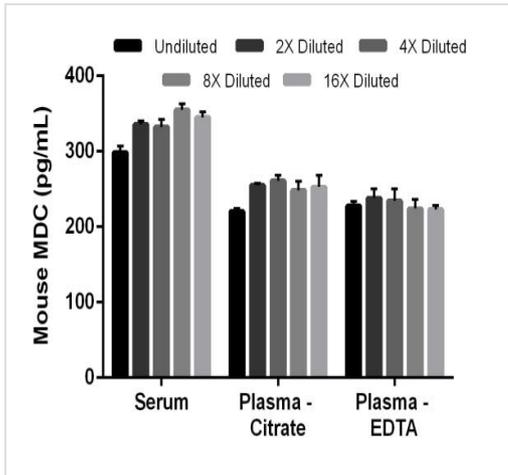


Standard curve comparison between mouse MDC SimpleStep ELISA[®] kit and traditional ELISA kit from leading competitor. SimpleStep ELISA kit shows comparable sensitivity.



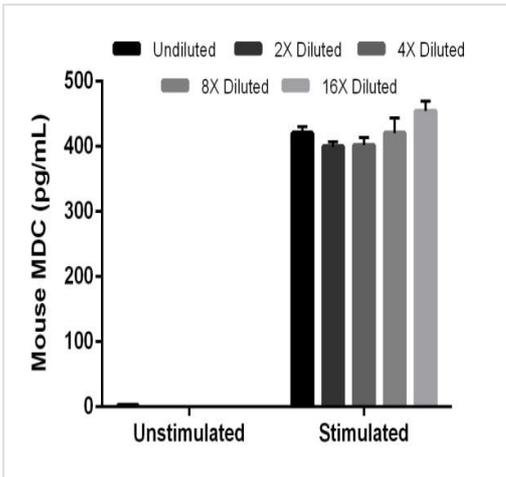
Example of MDC standard curve.

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



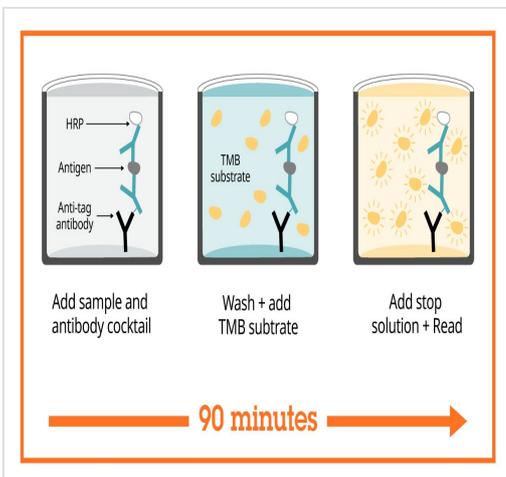
Interpolated concentrations of MDC in mouse serum, plasma (citrate), and plasma (EDTA).

The concentrations of MDC were measured in duplicate and interpolated from the MDC standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean MDC concentration was determined to be 333.6 pg/mL in mouse serum, 247.6 pg/mL in mouse plasma (Citrate), and 229.6 pg/mL in mouse plasma (EDTA).



Comparison of secreted MDC in unstimulated and PMA/PHA-stimulated J774A.1 Cells.

J7774A.1 cells were grown in the absence (unstimulated) or presence of Phorbol Myristate Acetate (PMA) and phytohemagglutinin (PHA) (stimulated) for 3 days. MDC was measured in 2-fold diluted cell culture supernatants of unstimulated and PMA/PHA stimulated J774A.1 and cell culture media. Measured values were interpolated from the MDC Standard Curve diluted in Sample Diluent NS and corrected for dilution factor. Mean of duplicate values +/-SD are graphed: 2.9 pg/mL unstimulated, 419.5 pg/mL stimulated, and undetectable in media.



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.

Sandwich ELISA - Mouse MDC ELISA Kit (CCL22) (ab204525)

Powered by
recombinant antibodies



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Sandwich ELISA - Mouse MDC ELISA Kit (CCL22)
(ab204525)

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

Get more done with
SimpleStep ELISA



Easy to use
Single-wash 90-minute protocol



Flexible
Matched antibody pairs available



Precision antibodies
High sensitivity, specificity and reproducibility



Scalable
Now in 10-pack and 384-well formats

Sandwich ELISA - Mouse MDC ELISA Kit (CCL22)
(ab204525)

To learn more about the advantages of SimpleStep ELISA[®] kits see [here](#).

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