

Product datasheet

Mouse MIP2 ELISA Kit (CXCL2) ab204517

SimpleStep ELISA[®]

[7 Images](#)

Overview

Product name Mouse MIP2 ELISA Kit (CXCL2)

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
overall	8			1.64%

Inter-assay

Sample	n	Mean	SD	CV%
overall	3			4.87%

Sample type Cell culture supernatant, Serum, Plasma

Assay type Sandwich (quantitative)

Sensitivity 0.87 pg/ml

Range 3.13 pg/ml - 200 pg/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Serum	108	103% - 113%
Cell culture media	102	98% - 107%
Hep Plasma	104	101% - 109%
EDTA Plasma	115	113% - 116%
Cit plasma	91	87% - 97%

Assay time 1h 30m

Assay duration One step assay

Species reactivity **Reacts with:** Mouse

Product overview Abcam's MIP2 (CXCL2) Mouse in vitro SimpleStep ELISA® (Enzyme-Linked Immunosorbent Assay) kit is designed for the quantitative measurement of MIP2 protein in mouse serum, plasma, and cell culture supernatants.

The 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. 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.

Sensitivity:

- Samples diluted in Sample Diluent NS – 0.87 pg/mL
- Samples diluted in Sample Diluent 50BP – 1.62 pg/mL
- Samples diluted in Sample Diluent 25BP – 1.03 pg/mL

Notes Mouse Macrophage Inflammatory Protein-2 (MIP2), also known as C-X-C motif chemokine 2 (CXCL2), is a small cytokine belonging to the CXC chemokine family. MIP2 was originally identified as a heparin-binding protein, and has been shown to exhibit potent neutrophil chemotactic activity.

Mouse MIP2 c-DNA encodes a 100 amino acid residue precursor protein. The amino-terminal 27 amino acid residues are cleaved from this precursor to generate the mature mouse MIP2. Mouse MIP2 is 63% identical to Mouse KC (another mouse alpha chemokine), and mouse MIP2 is 60% identical to human GROβ and GROγ. Based on these protein sequence similarities, it is likely that mouse MIP2 and KC are homologs of the human GROα, β, and γ chemokines. However, since chemokines with protein sequence homology to human IL-8 have not been identified in mice, it has been suggested that the mouse MIP2 and KC are functional homologs of human IL-8 in mice. A putative mouse homolog of the human IL-8 receptor beta (IL-8 Rβ) has also been cloned. This receptor shows 71% identity to human IL-8 Rβ and 68% identity to human IL-8 Rα. Both mouse MIP2 and KC bind mouse IL-8 Rβ with high affinity.

Platform Pre-coated microplate (12 x 8 well strips)

Properties

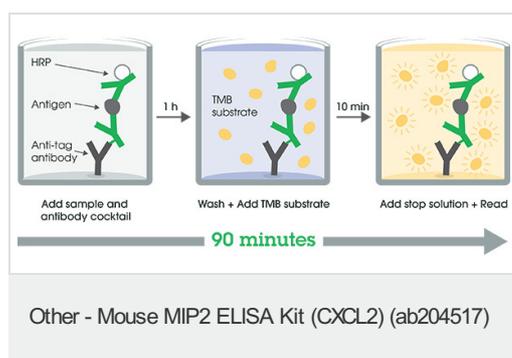
Storage instructions Store at +4°C. Please refer to protocols.

Components	1 x 96 tests
10X Mouse MIP2 Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
Antibody Diluent 4BI	1 x 6ml

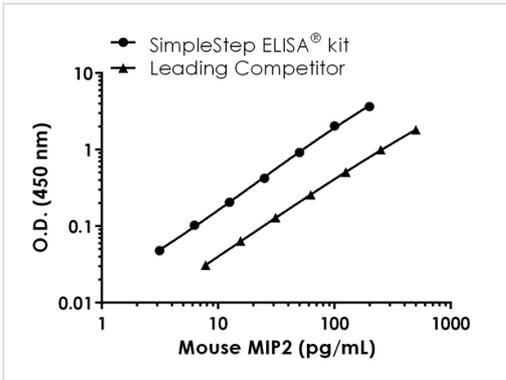
Components	1 x 96 tests
Mouse MIP2 Capture Antibody (Lyophilized)	1 vial
Mouse MIP2 Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit
Sample Diluent 50BP	1 x 20ml
Sample Diluent NS (ab193972)	1 x 50ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

Function	Produced by activated monocytes and neutrophils and expressed at sites of inflammation. Hematopoietic chemokine, which, in vitro, suppresses hematopoietic progenitor cell proliferation. GRO-beta(5-73) shows a highly enhanced hematopoietic activity.
Sequence similarities	Belongs to the intercrine alpha (chemokine CxC) family.
Post-translational modifications	The N-terminal processed form GRO-beta(5-73) is produced by proteolytic cleavage after secretion from bone marrow stromal cells.
Cellular localization	Secreted.

Images

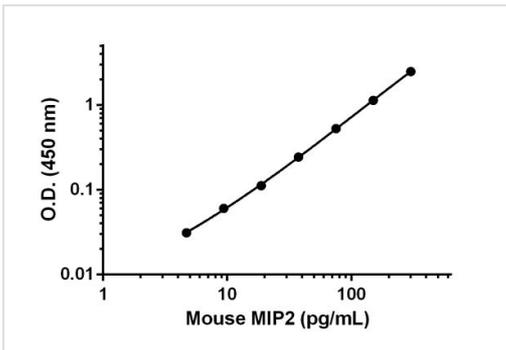


SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



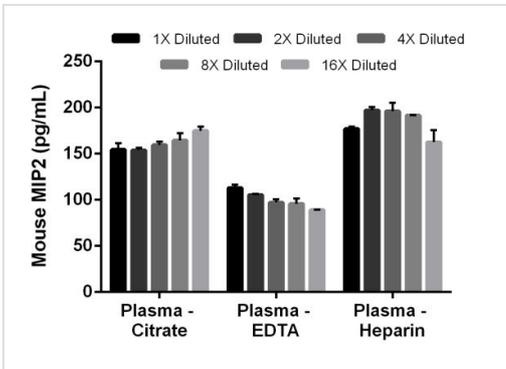
Mouse MIP2 standard curve comparison data.

Standard curve comparison between mouse MIP2 SimpleStep ELISA[®] kit and traditional ELISA kit from leading competitor. SimpleStep ELISA kit show comparable sensitivity.



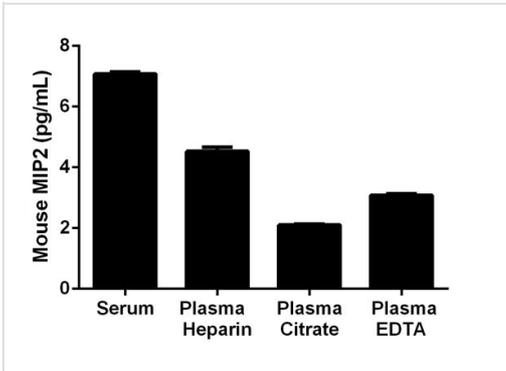
Linearity of dilution of MIP2 in serum and cell culture media.

Recombinant mouse MIP2 was spiked into 100% serum and diluted in a 2-fold dilution series in Sample Diluent 50BP. Recombinant mouse MIP2 was spiked into 10% cell culture media and diluted in a 2-fold dilution series in Sample Diluent NS. The concentrations of mouse MIP2 were measured in duplicate and interpolated from the mouse MIP2 standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are graphed (mean +/- SD).



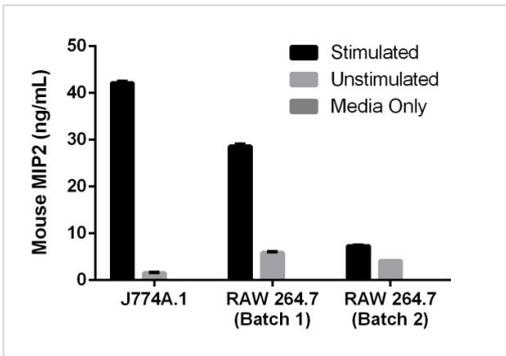
Linearity of dilution of spiked recombinant MIP2 in plasma.

Recombinant mouse MIP2 was spiked into 100% citrate plasma and 50% EDTA plasma and diluted in a 2-fold dilution series in Sample Diluent 25BP. Recombinant mouse MIP2 was spiked into 100% heparin plasma and diluted in a 2-fold dilution series in Sample Diluent 50BP. The concentrations of mouse MIP2 were measured in duplicate and interpolated from the mouse MIP2 standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are graphed (mean +/- SD).



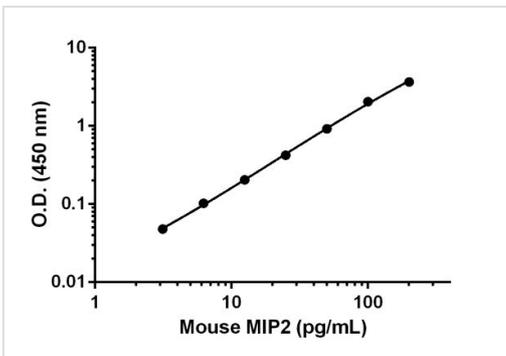
Mouse MIP2 expression is shown for serum and plasma samples.

Native MIP2 was measured in duplicate in 100% serum and 100% heparin plasma and concentrations interpolated from a standard curve diluted in Sample Diluent 50BP. Native MIP2 was measured in duplicate in 100% Citrate plasma and 50% EDTA plasma and concentrations interpolated from a standard curve diluted in Sample Diluent 25BP. The interpolated dilution factor corrected values are graphed (mean +/- SD).



Mouse MIP2 expression is shown for cultured media from two mouse cell lines.

J774A.1 cells were cultured in HGDMEM with 10% fetal calf serum, and 100 µg/mL of Kanamycin. During the exponential growth phase, J774A.1 cells were treated for 72 hours in the presence and absence of 1.5% PHA and 10 ng/mL of PMA. RAW 264.7 cells were cultured in HGDMEM with 10% fetal calf serum, 2 mM L-glutamine and 100 µg/mL Kanamycin. During the exponential growth phase, RAW264.7 cells were starved for 24 hours and treated in the presence and absence of 5 µg/mL of LPS (Batch #1) or 1% PHA (Batch #2). The concentrations of mouse MIP2 were interpolated from a standard curve diluted in Sample Diluent NS and corrected for sample dilution. The interpolated dilution factor corrected values are graphed (mean +/- SD).



Example of the mouse MIP2 standard curve in Sample Diluent NS.

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

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