

Human MIP2 ELISA Kit (CXCL2) ab184862

Recombinant SimpleStep ELISA

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Overview

Product name Human MIP2 ELISA Kit (CXCL2)

Detection method Colorimetric

Precision	Intra-assay				
	Sample	n	Mean	SD	CV%
	Human Serum	24			2.81%

	Inter-assay				
	Sample	n	Mean	SD	CV%
	Human Serum	24			3.46%

Sample type Cell culture supernatant, Serum, Plasma

Assay type Sandwich (quantitative)

Sensitivity < 1 pg/ml

Range 2.3 pg/ml - 150 pg/ml

Recovery	Sample specific recovery		
	Sample type	Average %	Range
	Serum	101.3	89.9% - 110.09%
	Cell culture media	106.57	97.09% - 116.04%
	Hep Plasma	100.07	87.61% - 116.98%
	EDTA Plasma	96.92	94.06% - 100.01%

Assay time 1h 30m

Assay duration One step assay

Species reactivity Reacts with: Human

Product overview

Human MIP2 (CXCL2) ELISA kit (ab184862) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of MIP2 protein in human serum, plasma, and cell culture supernatants. It uses our proprietary SimpleStep ELISA® technology. Quantitate human MIP2 with 1 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 2 (MIP2) otherwise known as CXCL2 GRO-beta| or Hematopoietic synergistic factor is a 7.9 kDa heparin-binding chemokine that has potent effects in the response to inflammation and induction of peripheral tolerance. MIP2 shares 70% sequence similarity with mouse and rat MIP2. It is secreted by activated monocytes neutrophils and inflamed mucosal epithelial cells in response to inflammatory stimuli such as IL-1 β . MIP2 recruits granulocytic neutrophils and macrophages at sights of inflammation| and causes degranulation of these effector cells at the inflammatory site. It has also been hypothesized that MIP2 acts to synergize the effects of Granulocyte macrophage colony-stimulating factor (GM-CSF) and Macrophage colony-stimulating factor (M-CSF) leading to a larger recruitment of neutrophils and macrophages at the site of inflammation. Research has also suggested that MIP2 is involved in tolerogenic pathways as a lack of the MIP2 receptors CXCR1 and CXCR2 are associated with peripheral tolerance. Clinically, MIP2 is being used as a bone marrow transplant regimen to mobilize peripheral blood hematopoietic stem cells (PBSCs). Mobilization by MIP2 therapy in combination with G-CSF has been associated with faster immune cell reconstitution after transplantation.

Platform

Microplate

Properties

Storage instructions

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

Components	1 x 96 tests
10X Human MIP2 Capture Antibody	1 x 600 μ l
10X Human MIP2 Detector Antibody	1 x 600 μ l
10X Wash Buffer PT (ab206977)	1 x 20ml
Antibody Diluent 4BI	1 x 6ml

Components	1 x 96 tests
Human MIP2 Lyophilized Recombinant Protein (ab9842)	2 vials
Plate Seals	1 unit
Sample Diluent 25BP	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

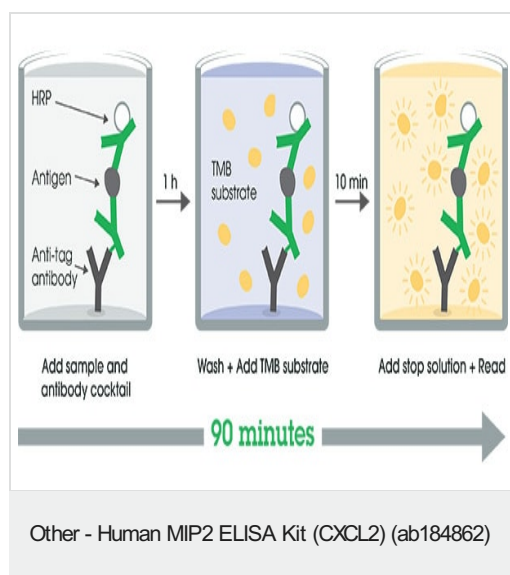
Function Produced by activated monocytes and neutrophils and expressed at sites of inflammation. Hematopoietic chemokine, which, in vitro, suppresses hematopoietic progenitor cell proliferation. GRO-beta(5-73) shows a highly enhanced hematopoietic activity.

Sequence similarities Belongs to the intercrine alpha (chemokine CxC) family.

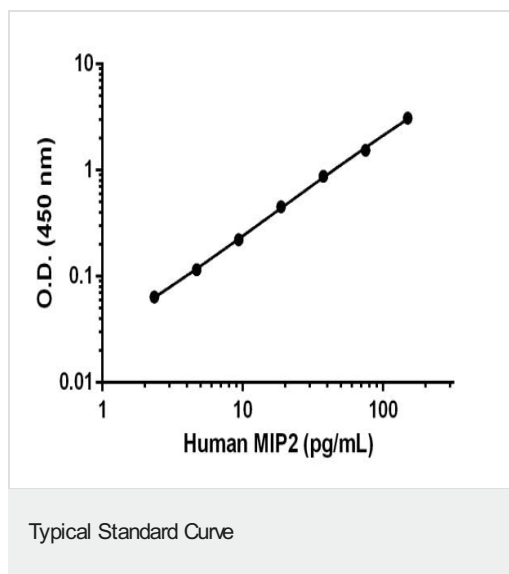
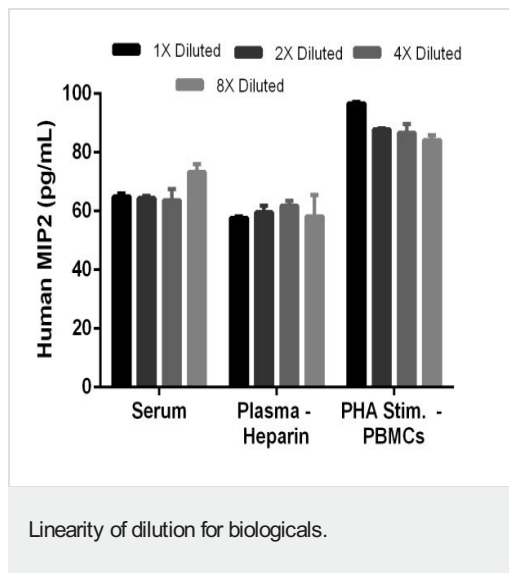
Post-translational modifications The N-terminal processed form GRO-beta(5-73) is produced by proteolytic cleavage after secretion from bone marrow stromal cells.

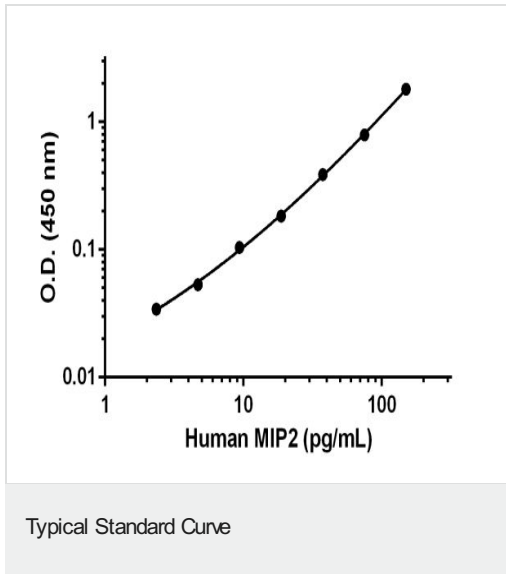
Cellular localization Secreted.

Images

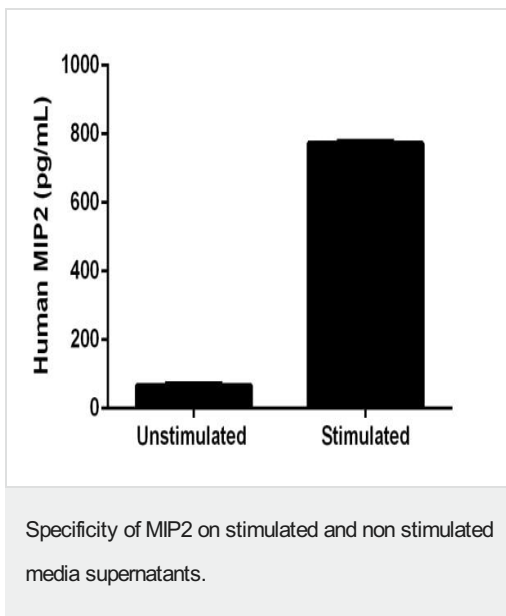


SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.

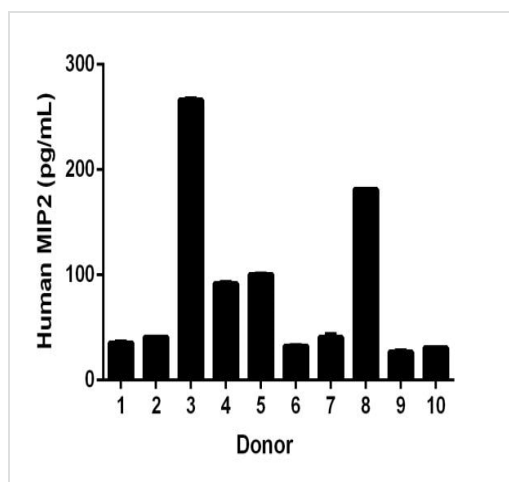




Example of MIP2 standard curve in Sample Diluent 25BP using ab184862







Human PBMCs were cultured in RPMI supplemented with 10% fetal calf serum, 2 mM L-glutamine, 100 U/mL penicillin and 100 µg/mL streptomycin. Cells were cultured for 2 days at 37°C in the presence or absence of PHA. The concentrations of MIP2 were interpolated from the calibration curve and corrected for sample dilution. The mean MIP2 concentration was 67 pg/mL on unstimulated PBMC supernatants and 773 pg/mL on stimulated PBMCs supernatants.



Levels of MIP2 in human serum samples.

Human MIP2 levels in individual healthy donors. Ten individual healthy donors were evaluated for the presence of MIP2 in serum using this assay. Results were interpolated from the standard curve in Sample Diluent 25BP and corrected for sample dilution (1:4). The mean level of Human MIP2 was found at 84.757 pg/mL with a range of 26.767 – 266.256 pg/mL.

Powered by
recombinant antibodies

 <p>Research with confidence Consistent and reproducible results</p>	 <p>Long-term and scalable supply Recombinant technology</p>
 <p>Success from the first experiment Confirmed specificity</p>	 <p>Ethical standards compliant Animal-free production</p>

Sandwich ELISA - Human MIP2 ELISA Kit (CXCL2)
(ab184862)

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

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