

Product datasheet

Human MCP4 ELISA Kit ab239426

Recombinant SimpleStep ELISA

[5 Images](#)

Overview

Product name Human MCP4 ELISA Kit

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
plasma	5			5.6%

Inter-assay

Sample	n	Mean	SD	CV%
plasma	3			6.6%

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

Assay type Sandwich (quantitative)

Sensitivity 1.2 pg/ml

Range 3.9 pg/ml - 250 pg/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Serum	91	88% - 95%
Cell culture media	95	92% - 97%
EDTA Plasma	95	90% - 99%
Cit plasma	96	89% - 99%

Assay time 1h 30m

Assay duration One step assay

Species reactivity**Reacts with:** Human**Product overview**

Human MCP4 ELISA Kit (ab239426) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of MCP4 protein in edta plasma, serum, cell culture supernatant, and cit plasma. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human MCP4 with 1.2 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.

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 Human MCP4 Capture Antibody	1 x 600µl
10X Human MCP4 Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
Antibody Diluent 4BI	1 x 6ml
Human MCP4 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
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

Function

Chemotactic factor that attracts monocytes, lymphocytes, basophils and eosinophils, but not neutrophils. Signals through CCR2B and CCR3 receptors. Plays a role in the accumulation of

leukocytes at both sides of allergic and non-allergic inflammation. May be involved in the recruitment of monocytes into the arterial wall during the disease process of atherosclerosis. May play a role in the monocyte attraction in tissues chronically exposed to exogenous pathogens.

Tissue specificity

Widely expressed. Found in small intestine, thymus, colon, lung, trachea, stomach and lymph node. Low levels seen in the pulmonary artery smooth muscle cells.

Sequence similarities

Belongs to the intercrine beta (chemokine CC) family.

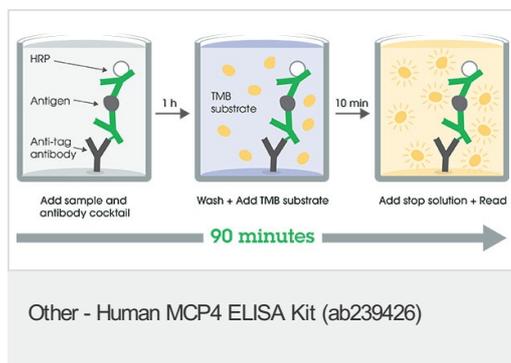
Post-translational modifications

One major form (form long), and two minor forms (short chain and medium chain) are produced by differential signal peptide cleavage. The medium chain is about 30-fold less active than the long chain.

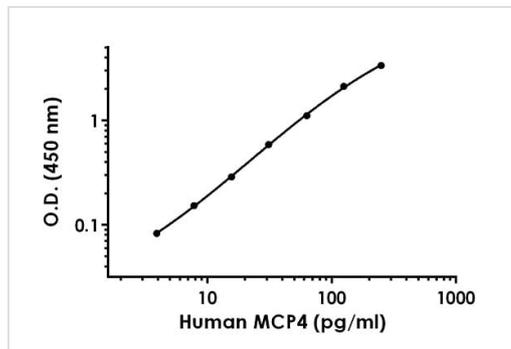
Cellular localization

Secreted.

Images

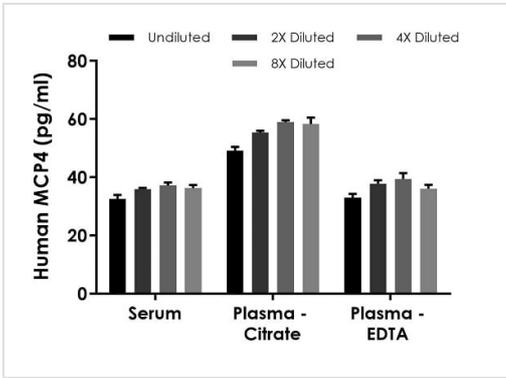


SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



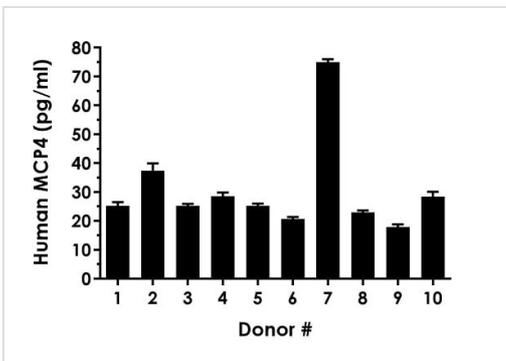
The MCP4 standard curve was prepared as described in Section 10. Raw data values are shown in the table. Background-subtracted data values (mean +/- SD) are graphed.

Example of human MCP4 standard curve in Sample Diluent NS.



Interpolated concentrations of native MCP4 in human serum, plasma (citrate), and plasma (EDTA) samples.

The concentrations of MCP4 were measured in duplicates, interpolated from the MCP4 standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 100%, plasma (citrate) 100%, and plasma (EDTA) 100%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean MCP4 concentration was determined to be 35.0 pg/mL in serum, 56.2 pg/mL in plasma (citrate), and 36.6 pg/mL in plasma (EDTA).



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

Interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean MCP4 concentration was determined to be 30.6 pg/mL with a range of 17.9 - 75.0 pg/mL.

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 - Human MCP4 ELISA Kit (ab239426)

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

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