

Human MMP8 ELISA Kit ab219050

Recombinant SimpleStep ELISA

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

Overview

Product name Human MMP8 ELISA Kit

Detection method Colorimetric

Precision

Intra-assay

| Sample | n | Mean | SD | CV% |
|---------|---|------|----|------|
| Overall | 8 | | | 1.7% |

Inter-assay

| Sample | n | Mean | SD | CV% |
|---------|---|------|----|-------|
| Overall | 3 | | | 12.2% |

Sample type

Saliva, Serum, Hep Plasma, EDTA Plasma, Cit plasma

Assay type

Sandwich (quantitative)

Sensitivity

19.5 pg/ml

Range

78 pg/ml - 5000 pg/ml

Recovery

Sample specific recovery

| Sample type | Average % | Range |
|-------------|-----------|------------|
| Saliva | 99.7 | 86% - 114% |
| Serum | 84 | 81% - 86% |
| Hep Plasma | 86 | 82% - 90% |
| EDTA Plasma | 82 | 79% - 85% |
| Cit plasma | 85 | 83% - 87% |

Assay time

1h 30m

Assay duration

One step assay

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

Human MMP8 ELISA Kit (ab219050) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of MMP8 protein in cit plasma, edta plasma, hep plasma, saliva, and serum. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human MMP8 with 19.5 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

Matrix metalloproteinase-8 (MMP8), also known as neutrophil collagenase and PMNL collagenase, is a zinc and calcium binding protein encoded by the gene MMP-8. MMP8 belongs to the matrix metalloproteinase family which are involved in the degradation of extracellular matrix, and are involved in embryonic development, reproduction, and tissue remodeling. MMP8 is stored inactive in granules within neutrophils, and upon secretion is activated by cleavage of a peptide through the dissociation of a conserved cysteine from a zinc ion. MMP8 degrades type I, II, and III collagens, and the protein contains four hemopexin regions.

Platform

Pre-coated microplate (12 x 8 well strips)

Properties**Storage instructions**

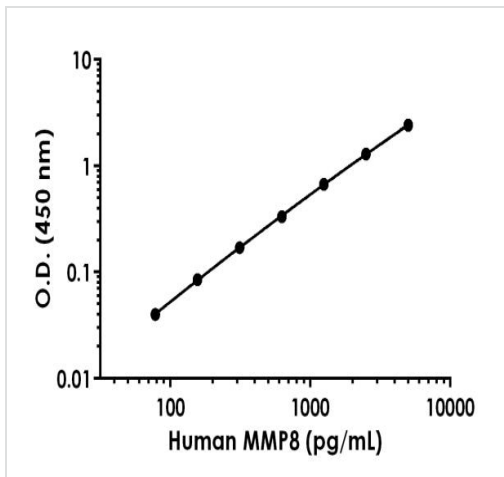
Store at +4°C. Please refer to protocols.

| Components | 1 x 96 tests |
|--|--------------|
| 10X Wash Buffer PT (ab206977) | 1 x 20ml |
| Antibody Diluent 5BI | 1 x 6ml |
| 10X Human MMP8 Capture Antibody | 1 x 600µl |
| 10X Human MMP8 Detector Antibody | 1 x 600µl |
| Human MMP8 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 |

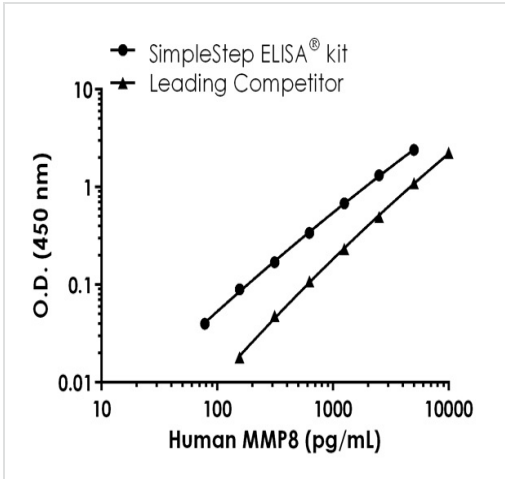
| | |
|------------------------------|--|
| Function | Can degrade fibrillar type I, II, and III collagens. |
| Tissue specificity | Neutrophils. |
| Sequence similarities | Belongs to the peptidase M10A family. Contains 4 hemopexin-like domains. |
| Domain | The conserved cysteine present in the cysteine-switch motif binds the catalytic zinc ion, thus inhibiting the enzyme. The dissociation of the cysteine from the zinc ion upon the activation-peptide release activates the enzyme. |
| Cellular localization | Cytoplasmic granule. Secreted > extracellular space > extracellular matrix. Stored in intracellular granules. |

Images



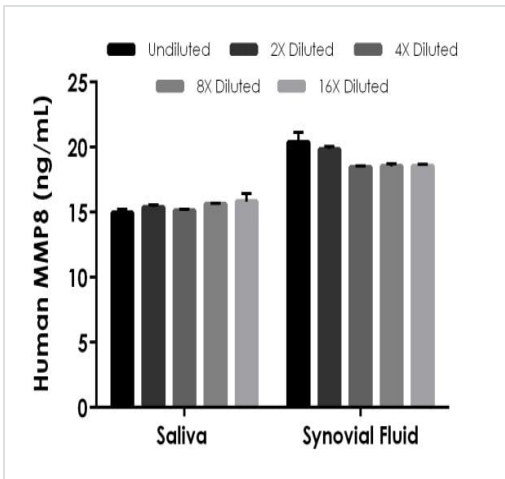
Background-subtracted data values (mean +/- SD) are graphed.

Example of human MMP8 standard curve in Sample Diluent NS.



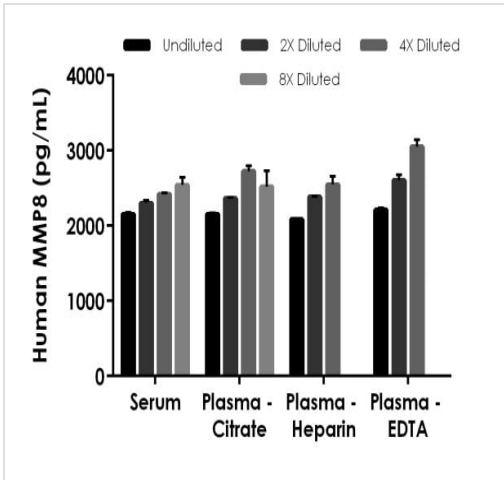
Standard curve comparison between human MMP8 SimpleStep ELISA[®] kit and traditional ELISA kit from leading competitor. SimpleStep ELISA kit shows comparable sensitivity.

Human MMP8 standard curve comparison data



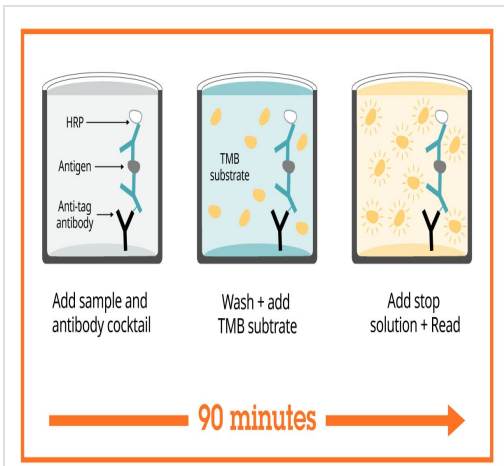
The concentrations of MMP8 were measured in duplicate, interpolated from the MMP8 standard curves and corrected for sample dilution. Undiluted samples are as follows: saliva 37.5%, synovial fluid 12.5%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean MMP8 concentrations were determined to be 15.4 ng/mL in saliva and 19.2 ng/mL in synovial fluid.

Interpolated concentrations of native MMP8 in human saliva and synovial fluid samples.



Interpolated concentrations of spiked MMP8 in human serum, plasma (citrate), plasma (EDTA), and plasma (heparin) samples.

The concentrations of MMP8 were measured in duplicate, interpolated from the MMP8 standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 1.25%, plasma (citrate) 1.25%, plasma (EDTA) 1.25%, plasma (heparin) 1.25%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). Native signal was undetectable in null-spiked samples.



Sandwich ELISA - Human MMP8 ELISA Kit (ab219050)

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.

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 MMP8 ELISA Kit
(ab219050)

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 - Human MMP8 ELISA Kit
(ab219050)

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

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