

Product datasheet

Mouse MMP3 ELISA Kit ab203363

Recombinant SimpleStep ELISA

5 Images

Overview

Product name Mouse MMP3 ELISA Kit

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Overall	5			3.2%

Inter-assay

Sample	n	Mean	SD	CV%
Overall	3			4.8%

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

Assay type Sandwich (quantitative)

Sensitivity 4.94 pg/ml

Range 18.8 pg/ml - 1200 pg/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Cell culture supernatant	103	99% - 109%
Serum	112	101% - 126%
Hep Plasma	103	97% - 110%
Cit plasma	105	97% - 115%

Assay time 1h 30m

Assay duration One step assay

Species reactivity**Reacts with:** Mouse**Does not react with:** Pig**Product overview**

Mouse MMP3 ELISA Kit (ab203363) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of MMP3 protein in cell culture supernatant, cit plasma, hep plasma, and serum. It uses our proprietary SimpleStep ELISA® technology. Quantitate Mouse MMP3 with 4.94 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-3 (MMP3) is a member of the matrix metalloproteinase family, which are involved in breakdown of the extracellular matrix. MMP3 is secreted in a proenzyme form from a variety of cells, including macrophages, osteoblasts, keratinocytes, chondrocytes, fibroblasts and vascular smooth muscle cells. It degrades collagen types II, III, IV, IX and X, along with proteoglycans, elastin, laminin and fibronectin. In addition to normal physiological processes like development, reproduction and wound healing, MMP3 is implicated in humans in the progression of atherosclerosis and tumor initiation.

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 MMP3 Capture Antibody	1 x 600µl
10X Mouse MMP3 Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
Antibody Diluent 4BI	1 x 6ml
Mouse MMP3 Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit

Components	1 x 96 tests
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

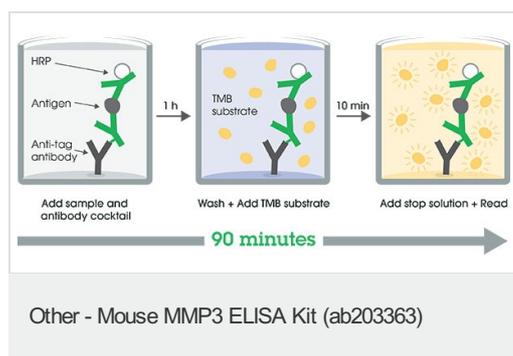
Function Can degrade fibronectin, laminin, gelatins of type I, III, IV, and V; collagens III, IV, X, and IX, and cartilage proteoglycans. Activates procollagenase.

Sequence similarities Belongs to the peptidase M10A family.
Contains 4 hemopexin-like domains.

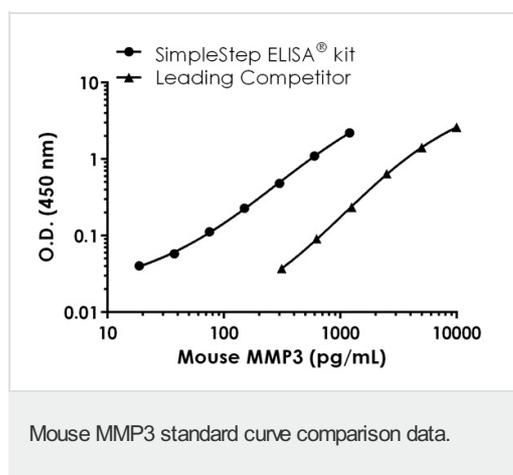
Domain The conserved cysteine present in the cysteine-switch motif binds the catalytic zinc ion, thus inhibiting the enzyme. The dissociation of the cysteine from the zinc ion upon the activation-peptide release activates the enzyme.

Cellular localization Secreted > extracellular space > extracellular matrix.

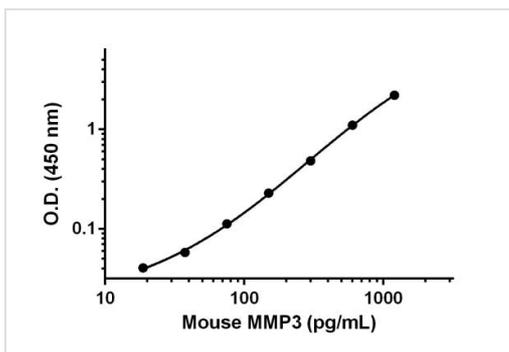
Images



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.

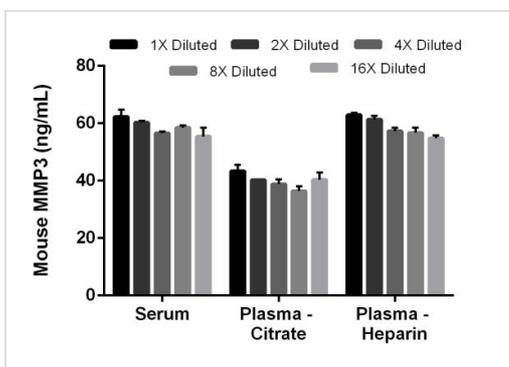


Standard curve comparison between mouse MMP3 SimpleStep ELISA[®] kit and traditional ELISA kit from leading competitor. SimpleStep ELISA kit shows a 10-fold increase in sensitivity.



Example of MMP3 standard curve.

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



Interpolated concentrations of MMP3 in mouse plasma (heparin and citrate) and serum.

The concentrations of MMP3 were measured in duplicate and interpolated from the MMP3 standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2).

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Sandwich ELISA - Mouse MMP3 ELISA Kit
(ab203363)

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