

Human MFGE8 ELISA Kit ab235638

Recombinant SimpleStep ELISA

1 References 12 Images

Overview

Product name Human MFGE8 ELISA Kit

Detection method Colorimetric

| Precision | Intra-assay |   |      |    |      |
|-----------|-------------|---|------|----|------|
|           | Sample      | n | Mean | SD | CV%  |
|           | Supernatant | 5 |      |    | 4.3% |

|  | Inter-assay |   |      |    |      |
|--|-------------|---|------|----|------|
|  | Sample      | n | Mean | SD | CV%  |
|  | Supernatant | 3 |      |    | 8.2% |

Sample type Cell culture supernatant, Milk, Serum, Cell culture extracts, Tissue Extracts, Cit plasma

Assay type Sandwich (quantitative)

Sensitivity 2.4 pg/ml

Range 15.6 pg/ml - 2000 pg/ml

| Recovery | Sample specific recovery |           |             |
|----------|--------------------------|-----------|-------------|
|          | Sample type              | Average % | Range       |
|          | Cell culture supernatant | 103       | 91% - 114%  |
|          | Milk                     | 86        | 80% - 91%   |
|          | Serum                    | 124       | 121% - 128% |
|          | Cell culture extracts    | 91        | 89% - 94%   |
|          | Tissue Extracts          | 93        | 88% - 98%   |
|          | Cell culture media       | 94        | 88% - 98%   |
|          |                          |           |             |

| Sample type | Average % | Range       |
|-------------|-----------|-------------|
| Cit plasma  | 121       | 117% - 124% |

#### Assay time

1h 30m

#### Assay duration

One step assay

#### Species reactivity

**Reacts with:** Human

**Does not react with:** Cow

#### Product overview

Human MFGE8 ELISA Kit (ab235638) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of MFGE8 protein in cell culture supernatant, cit plasma, milk, serum, tissue extracts, and cell culture extracts. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human MFGE8 with 2.4 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

Abcam has not and does not intend to apply for the REACH Authorisation of customers' uses of products that contain European Authorisation list (Annex XIV) substances. It is the responsibility of our customers to check the necessity of application of REACH Authorisation, and any other relevant authorisations, for their intended uses.

#### Platform

Pre-coated microplate (12 x 8 well strips)

#### Properties

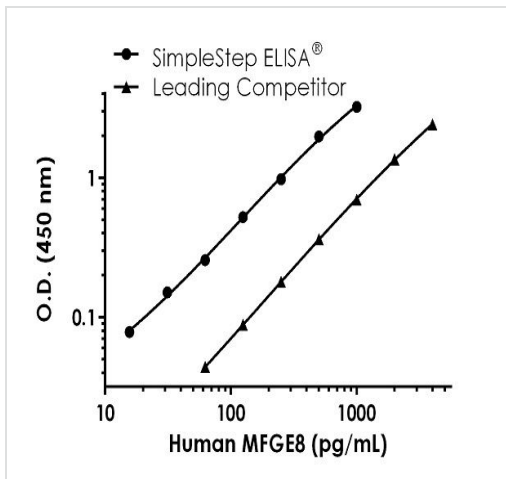
**Storage instructions** Store at +4°C. Please refer to protocols.

| Components                                       | 1 x 96 tests |
|--|--------------|
| 10X Human MFGE8 Capture Antibody                 | 1 x 600µl    |
| 10X Human MFGE8 Detector Antibody                | 1 x 600µl    |
| 10X Wash Buffer PT (ab206977)                    | 1 x 20ml     |
| 50X Cell Extraction Enhancer Solution (ab193971) | 1 x 1ml      |
|  |              |

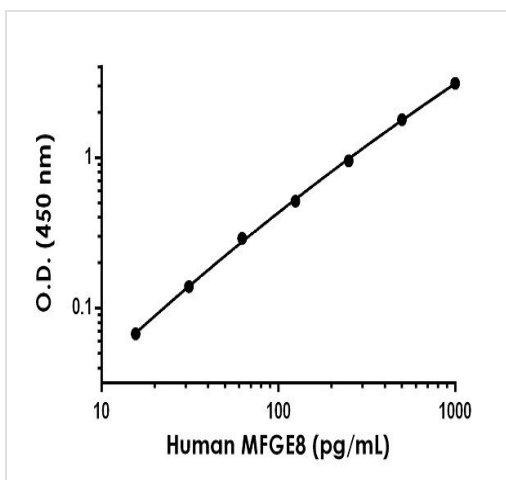
| Components  | 1 x 96 tests |
|---|--------------|
| 5X Cell Extraction Buffer PTR (ab193970)            | 1 x 10ml     |
| Antibody Diluent 4BI                                | 1 x 6ml      |
| Human MFGE8 Lyophilized Recombinant Protein         | 2 vials      |
| Plate Seals   | 1 unit       |
| Sample Diluent 25BS                                 | 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     |

|   |  |
|---|--|
| <b>Function</b>                         | Plays an important role in the maintenance of intestinal epithelial homeostasis and the promotion of mucosal healing. Promotes VEGF-dependent neovascularization (By similarity). Contributes to phagocytic removal of apoptotic cells in many tissues. Specific ligand for the alpha-v/beta-3 and alpha-v/beta-5 receptors. Also binds to phosphatidylserine-enriched cell surfaces in a receptor-independent manner. Zona pellucida-binding protein which may play a role in gamete interaction. Binds specifically to rotavirus and inhibits its replication. Medin is the main constituent of aortic medial amyloid. |
| <b>Tissue specificity</b>               | Mammary epithelial cell surfaces and aortic media. Overexpressed in several carcinomas.  |
| <b>Sequence similarities</b>            | Contains 1 EGF-like domain.<br>Contains 2 F5/8 type C domains.   |
| <b>Post-translational modifications</b> | Medin has a ragged N-terminus with minor species starting at Pro-264 and Gly-273.  |
| <b>Cellular localization</b>            | Membrane. Secreted.  |

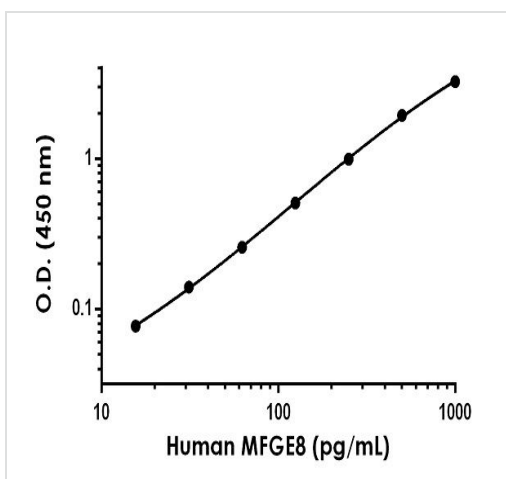
## Images



Human MFGE8 Competitor Std Curve Comparison



Example of human MFGE8 standard curve in Sample Diluent 10BS

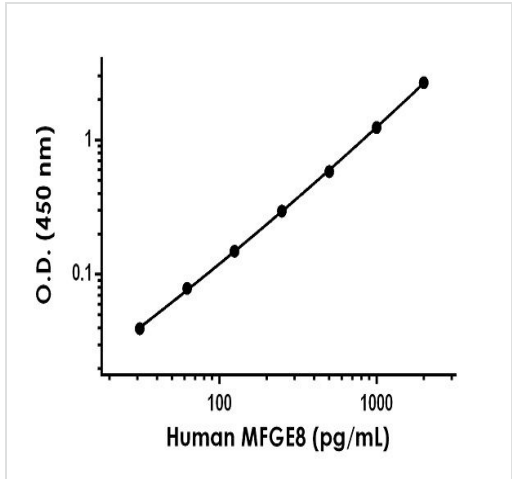


Example of human MFGE8 standard curve in Sample Diluent NS

Standard curve comparison between human MFGE8 SimpleStep ELISA® kit and traditional ELISA kit from leading competitor. SimpleStep ELISA kit shows increased sensitivity.

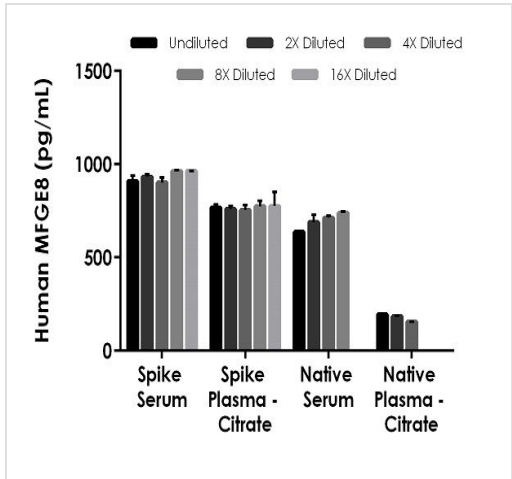
Background-subtracted data values (mean  $\pm$  SD) are graphed.

Background-subtracted data values (mean  $\pm$  SD) are graphed.



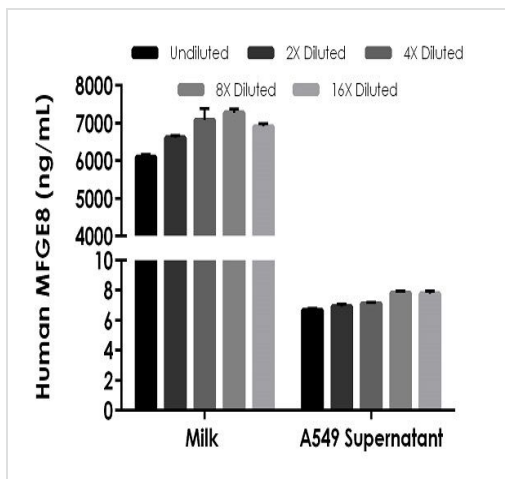
Background-subtracted data values (mean +/- SD) are graphed.

Example of human MFGE8 standard curve in 1X Cell Extraction Buffer PTR



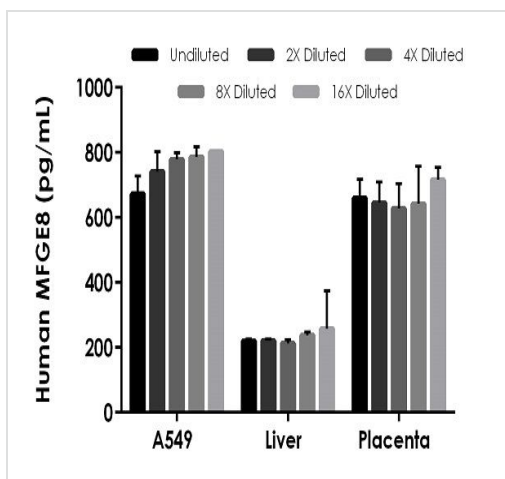
The concentrations of MFGE8 were measured in duplicates, interpolated from the MFGE8 standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 25% and plasma (citrate) 25%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean **native** MFGE8 concentration was determined to be 694.7 pg/mL in neat serum and 178.1 pg/mL in neat plasma (citrate).

Interpolated concentrations of spike and native MFGE8 in human serum and plasma (citrate)



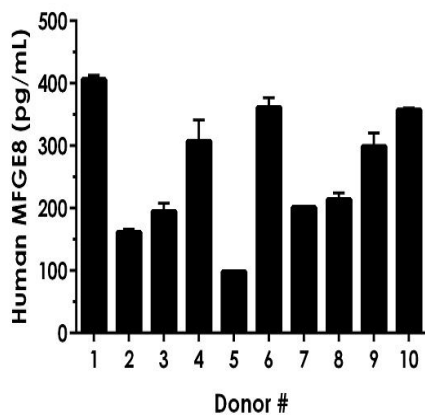
Interpolated concentrations of native MFGE8 in human milk and A549 cell culture supernatant samples

The concentrations of MFGE8 were measured in duplicates, interpolated from the MFGE8 standard curves and corrected for sample dilution. Undiluted samples are as follows: milk 1:20,000 and A549 cell culture supernatant 10%. The interpolated dilution factor corrected values are plotted (mean  $\pm$  SD,  $n=2$ ). The mean MFGE8 concentration was determined to be 6794 ng/mL in neat milk and 7.260 ng/mL in neat A549 cell culture supernatant.



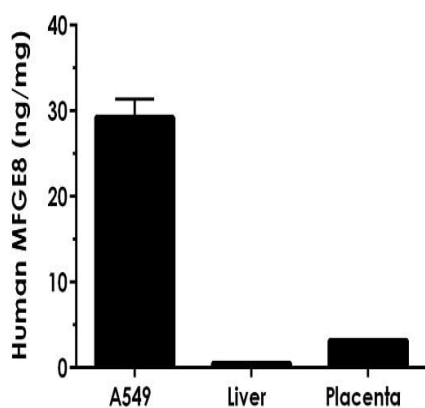
Interpolated concentrations of native MFGE8 in human A549 cell extract, human liver tissue extract and human placenta tissue extract

Interpolated concentrations of native MFGE8 in human A549 cell extract based on a 25  $\mu$ g/mL extract load, human liver tissue extract based on a 400  $\mu$ g/mL extract load, and human placenta tissue extract based on a 200  $\mu$ g/mL extract load. The concentrations of MFGE8 were measured in duplicate and interpolated from the MFGE8 standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean  $\pm$  SD,  $n=2$ ). The mean MFGE8 concentration was determined to be 756.6 pg/mL in A549 cell extract, 230.1 pg/mL in human liver tissue extract, and 658.5 pg/mL in human placenta tissue extract.



Serum from ten individual healthy human female donors was measured in duplicate

Interpolated dilution factor corrected values are plotted (mean  $\pm$  SD,  $n=2$ ). The mean MFGE8 concentration was determined to be 260.5 pg/mL with a range of 98.60 – 406.6 pg/mL.



Comparison of native human MFGE8 in cell and tissue extracts expressed in ng of MFGE8 per mg of extract

The concentrations of MFGE8 were measured in duplicate and interpolated from the MFGE8 standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean  $\pm$  SD,  $n=2$ ). The mean MFGE8 concentration was determined to be 29.24 ng/mg in A549 cell extract, 0.546 ng/mg in human liver tissue extract, and 3.222 ng/mg in human placenta tissue extract.

Powered by  
recombinant antibodies



**Research with confidence**  
Consistent and reproducible results



**Long-term and scalable supply**  
Recombinant technology



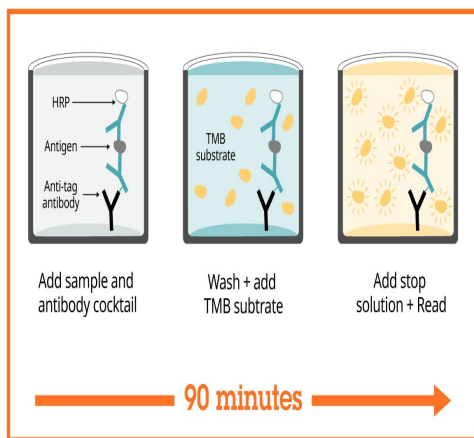
**Success from the first experiment**  
Confirmed specificity



**Ethical standards compliant**  
Animal-free production

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

Sandwich ELISA - Human MFGE8 ELISA Kit  
(ab235638)



Sandwich ELISA - Human MFGE8 ELISA Kit  
(ab235638)

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.

#### 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 MFGE8 ELISA Kit  
(ab235638)

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

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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