# Human matrix metalloproteinase 9/Gelatinase B,MMP-9 ELISA Kit

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|---|---|
| **Product Code** | CSB-E08006h |
| **Abbreviation** | MMP9 |
| **Protein Biological Process 1** | Tumor marker |
| **Target Name** | matrix metallopeptidase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV collagenase) |
| **Uniprot No.** | P14780 |
| **Alias** | CLG4B, GELB, MANDP2, MMP-9, macrophage gelatinase\|matrix metalloproteinase 9\|matrix metalloproteinase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV collagenase)\|type V collagenase |
| **Product Type** | ELISA Kit |
| **Immunogen Species** | Homo sapiens (Human) |
| **Protein Biological Process 3** | Collagen degradation |
| **Sample Types** | serum, plasma, tissue homogenates, cell culture supernates, urine |
| **Detection Range** | 0.312 ng/mL-20 ng/mL |
| **Sensitivity** | 0.284 ng/mL |
| **Assay Time** | 1-5h |
| **Sample Volume** | 50-100ul |
| **Detection Wavelength** | 450 nm |
| **Lead Time** | 3-5 working days after you place the order, and it takes another 3-5 days for delivery via DHL or FedEx. |
| **Research Area** | Cancer |
| **Quality Control** | A microplate reader capable of measuring absorbance at 450 nm, with the correction wavelength set at 540 nm or 570 nm.<br>An incubator can provide stable incubation conditions up to 37°C±5°C.<br>Centrifuge<br>Vortex<br>Squirt bottle, manifold dispenser, or automated microplate washer<br>Absorbent paper for blotting the microtiter plate<br>50-300ul multi-channel micropipette<br>Pipette tips<br>Single-channel micropipette with different ranges<br>100ml and 500ml graduated cylinders<br>Deionized or distilled water<br>Timer |

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|---|---|
| | Test tubes for dilution |
| **Gene Names** | MMP9 |
| **Tag Info** | quantitative |
| **Protein Description** | Sandwich |
| **Component** | A micro ELISA plate ---The 96-well plate has been pre-coated with an anti-human MMP-9 antibody. This dismountable microplate can be divided into 12 x 8 strip plates.<br>Two vials lyophilized standard ---Dilute a bottle of the standard at dilution series, read the OD values, and then draw a standard curve.<br>One vial Biotin-labeled MMP-9 antibody (100 x concentrate) (120 µl/bottle) ---Act as the detection antibody.<br>One vial HRP-avidin (100 x concentrate) (120 µl/bottle) ---Bind to the detection antibody and react with the TMB substrate to make the solution chromogenic.<br>One vial Biotin-antibody Diluent (15 ml/bottle) ---Dilute the Biotin-antibody.<br>One vial HRP-avidin Diluent (15 ml/bottle) ---Dilute the HRP-avidin solution.<br>One vial Sample Diluent (50 ml/bottle)---Dilute the sample to an appropriate concentration.<br>One vial Wash Buffer (25 x concentrate) (20 ml/bottle) ---Wash away unbound or free substances.<br>One vial TMB Substrate (10 ml/bottle) ---Act as the chromogenic agent. TMB interacts with HRP, eliciting the solution turns blue.<br>One vial Stop Solution (10 ml/bottle) ---Stop the color reaction. The solution color immediately turns from blue to yellow.<br>Four Adhesive Strips (For 96 wells) --- Cover the microplate when incubation.<br>An instruction manual |
| **Description** | This Human MMP9 ELISA Kit was designed for the quantitative measurement of Human MMP9 protein in serum, plasma, tissue homogenates, cell culture supernates, urine. It is a Sandwich ELISA kit, its detection range is 0.312 ng/mL-20 ng/mL and the sensitivity is 0.284 ng/mL. |
| **Target Details** | Proteins of the matrix metalloproteinase (MMP) family are involved in the breakdown of extracellular matrix in normal physiological processes, such as embryonic development, reproduction, and tissue remodeling, as well as in disease processes, such as arthritis and metastasis. Most MMP s are secreted as inactive proproteins which are activated when cleaved by extracellular proteinases. The enzyme encoded by this gene degrades type IV and V collagens. Studies in rhesus monkeys suggest that the enzyme is involved in IL-8-induced mobilization of hematopoietic progenitor cells from bone marrow, and murine studies suggest a role in tumor-associated tissue remodeling. |
| **Product Precision** | |

**Intra-assay Precision (Precision within an assay): CV%<8%**
Three samples of known concentration were tested twenty times on one plate to assess.
**Inter-assay Precision (Precision between assays):CV%<10%**
Three samples of known concentration were tested in twenty assays to assess.

| | Intra-Assay Precision | | | Inter-Assay Precision | | |
|---|---|---|---|---|---|---|
| Sample | 1 | 2 | 3 | 1 | 2 | 3 |
| n | 20 | 20 | 20 | 20 | 20 | 20 |
| Mean(ng/ml) | 2.616 | 2.320 | 2.652 | 2.349 | 2.671 | 2.446 |
| SD | 0.038 | 0.037 | 0.034 | 0.044 | 0.043 | 0.041 |
| CV(%) | 5.630 | 5.929 | 4.993 | 6.995 | 6.287 | 6.347 |

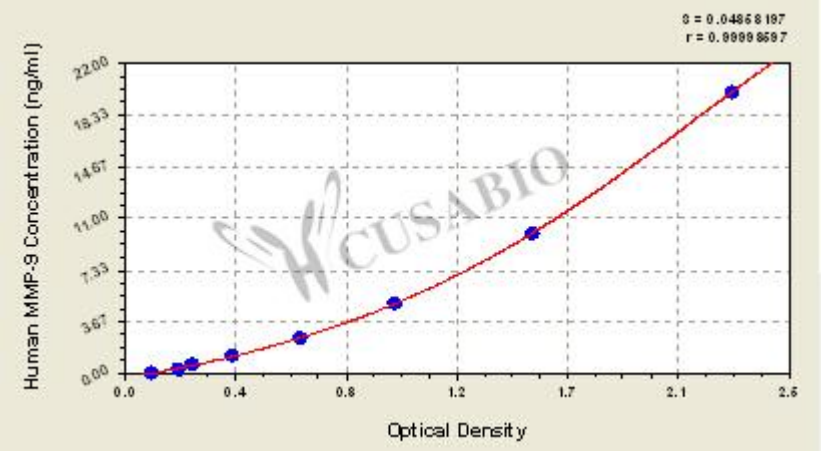
## Linearity

To assess the linearity of the assay, samples were spiked with high concentrations of human MMP-9 in various matrices and diluted with the Sample Diluent to produce samples with values within the dynamic range of the assay.

| | Sample | Serum(n=4) |
|---|---|---|
| 1:20 | Average % | 81 |
| | Range % | 80-94 |
| 1:40 | Average % | 83 |
| | Range % | 81-98 |
| 1:80 | Average % | 94 |
| | Range % | 85-108 |
| 1:160 | Average % | 96 |
| | Range % | 92-102 |

## Typical

These standard curves are provided for demonstration only. A standard curve should be generated for each set of samples assayed.



| ng/ml | OD1 | OD2 | Average | Corrected |
|---|---|---|---|---|
| 0 | 0.103 | 0.109 | 0.106 | |
| 0.312 | 0.214 | 0.199 | 0.207 | 0.101 |
| 0.625 | 0.258 | 0.265 | 0.262 | 0.156 |
| 1.25 | 0.406 | 0.409 | 0.408 | 0.302 |
| 2.5 | 0.657 | 0.671 | 0.664 | 0.558 |
| 5 | 1.005 | 1.024 | 1.015 | 0.909 |
| 10 | 1.514 | 1.538 | 1.526 | 1.420 |
| 20 | 2.289 | 2.242 | 2.266 | 2.160 |

**Msds**

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