Mouse matrix metalloproteinase 2/Gelatinase A,MMP-2 ELISA kit

Product Code	CSB-E04676m
Abbreviation	MMP2
Protein Biological Process 1	Angiogenesis
Target Name	matrix metallopeptidase 2 (gelatinase A, 72kDa gelatinase, 72kDa type IV collagenase)
Uniprot No.	P33434
Alias	CLG4, CLG4A, MMP-II, MONA, TBE-1, collagenase type IV-A|matrix metalloproteinase 2|matrix metalloproteinase-II|neutrophil gelatinase
Product Type	ELISA Kit
Immunogen Species	Mus musculus (Mouse)
Protein Biological Process 3	Angiogenesis
Sample Types	serum, plasma, cell culture supernates, tissue homogenates
Detection Range	15.6 pg/mL-1000 pg/mL
Sensitivity	3.9 pg/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
Gene Names	Mmp2
Tag Info	quantitative
Protein Description	Sandwich
Description	This mouse MMP2 ELISA Kit is suitable for qualitatively determining mouse concentrations in multiple biological fluids, including mouse serum, plasma, cell culture supernates, and tissue homogenates in vitro.IL27 is a heterodimeric cytokine that plays a role both in innate and adaptive immunity. MMP2 is an enzyme that degrades bone matrix, promotes osteoclastogenesis, and enhances osteolysis in bone metastasis by activating multiple signaling pathways. It plays an essential role in extracellular matrix remodeling and other pathological processes, such as tumor progression and skeletal dysplasia. MMP2 is important for cancer progression, invasion, and metastasis. Excessive

activation of MMP2 facilitates osteolytic metastasis and bone destruction in late-stage cancers, while its loss-of-function mutations lead to the declined bone mineralization and generalized osteolysis occurring progressively in skeletal developmental disorders, especially in multicentric osteolysis, nodulosis, and arthropathy (MONA). Either upregulation or downregulation of MMP2 activity can cause the same osteolytic effects.

This kit uses the quantitative sandwich-based enzyme immunoassay technique to measure the amount of mouse MMP2 in the sample. Standards and samples are respectively added to the microplate wells pre-coated with an anti-mouse MMP2 antibody. Biotin-labeled MMP2 antibody, HRP-avidin, and TMB substrate are pipped into the microplate in turn. The capture antibody pre-coated on the plate captures the MMP2 in the mouse samples. MMP2 binds to the biotinylated anti-MMP2 mouse monoclonal antibody. And the biotin on the biotinylated anti-MMP2 mouse monoclonal antibody binds to the avidin on the enzyme label, forming immune complexes. The color renders blue after the addition of the TMB substrate. The addition of the stop solution into the wells immediately turns the blue into yellow. The concentration of MMP2 in the samples is directly proportional to OD (450nm). Each manufactured lot of this ELISA kit was quality tested for criteria such as sensitivity, specificity, precision, linearity, and lot-to-lot consistency.

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. This gene encodes an enzyme which degrades type IV collagen, the major structural component of basement membranes. The enzyme plays a role in endometrial menstrual breakdown, regulation of vascularization and the inflammatory response. Mutations in this gene have been associated with Winchester syndrome and Nodulosis-Arthropathy-Osteolysis (NAO) syndrome. Two transcript variants encoding different isoforms have been found for this gene.

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.

Linearity

To assess the linearity of the assay, samples were spiked with high concentrations of mouse MMP-2 in various matrices and diluted with the Sample Diluent to produce samples with values within the dynamic range of the assay.

1:100	Sample	Serum(n=4)
	Average %	90
	Range %	87-103

1:200	Average %	96
	Range %	82-105
1:400	Average %	89
	Range %	81-99
1:800	Average %	95
	Range %	87-108

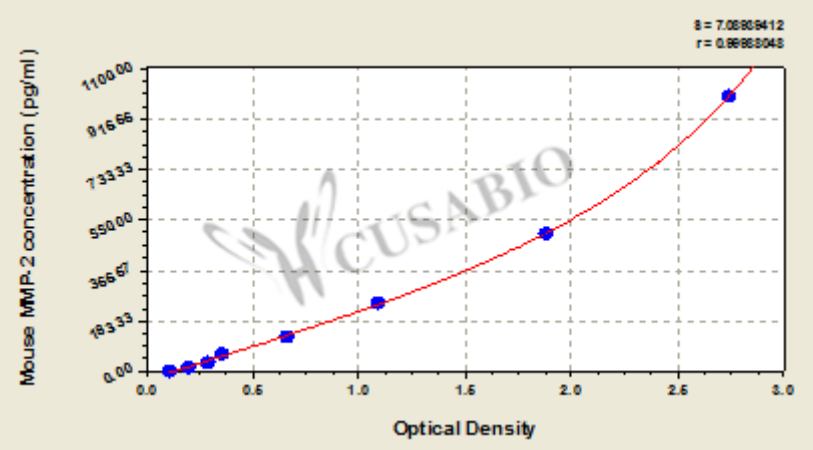
Recovery

The recovery of mouse MMP-2 spiked to levels throughout the range of the assay in various matrices was evaluated. Samples were diluted prior to assay as directed in the Sample Preparation section.

Sample Type	Average % Recovery	Range
Serum (n=5)	96	89-105
EDTA plasma (n=4)	95	84-101

Typical

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



pg/ml	OD1	OD2	Average	Corrected
1000	2.754	2.708	2.731	2.608
500	1.843	1.911	1.877	1.754
250	1.118	1.074	1.096	0.973
125	0.679	0.652	0.666	0.543
62.5	0.375	0.357	0.366	0.243
31.2	0.292	0.308	0.300	0.177
15.6	0.195	0.212	0.204	0.081
0	0.125	0.121	0.123	

Msds

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