

ARG81632
Rat MMP13 ELISA KitPackage: 96 wells
Store at: 4°C

Summary

Product Description	ARG81632 Rat MMP13 ELISA Kit is an Enzyme Immunoassay kit for the quantification of Rat MMP13 in serum, plasma and cell culture supernatants.
Tested Reactivity	Rat
Tested Application	ELISA
Specificity	No cross-reactivity with following recombinant Rat proteins: ApoAI, BMP1, BMP2, BMP3, BMP4, BMP7, CRP, HGF, HSP27, IL1 alpha, IL1 RI, IL1 beta, IL1RA, IL2, IL4, IL5, IL6, IL8, IL10, IL12, IL13, IL15, IL17C, IL21, IL23, IFN, MMP2, sIL2R, sIL6R, PDGF, PLA2G7, prolactin, TGF beta1, TGF beta2, TGF beta3, TLR1, TLR2, TLR3, TNF alpha, TNF RI, TNF RII, VEGF.
Target Name	MMP13
Conjugation	HRP
Conjugation Note	Read at 450 nm.
Sensitivity	12 pg/ml
Sample Type	Serum, plasma and cell culture supernatants.
Standard Range	62 - 4000 pg/ml
Sample Volume	100 µl
Precision	Intra-Assay CV: 6% Inter-Assay CV: 9%
Alternate Names	CLG3; EC 3.4.24.-; MANDP1; MMP-13; Collagenase 3; Matrix metalloproteinase-13

Application Instructions

Assay Time	~ 3 hours
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Properties

Form	96 well
Storage instruction	Store the kit at 2-8°C. Keep microplate wells sealed in a dry bag with desiccants. Do not expose test reagents to heat, sun or strong light during storage and usage. Please refer to the product user manual for detail temperatures of the components.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	MMP13
Gene Full Name	matrix metalloproteinase 13
Background	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 protein encoded by this gene cleaves type II collagen more efficiently than types I and III. It may be involved in articular cartilage turnover and cartilage pathophysiology associated with osteoarthritis. The gene is part of a cluster of MMP genes which localize to chromosome 11q22.3. [provided by RefSeq, Jul 2008]

Function

Plays a role in the degradation of extracellular matrix proteins including fibrillar collagen, fibronectin, TNC and ACAN. Cleaves triple helical collagens, including type I, type II and type III collagen, but has the highest activity with soluble type II collagen. Can also degrade collagen type IV, type XIV and type X. May also function by activating or degrading key regulatory proteins, such as TGFB1 and CTGF. Plays a role in wound healing, tissue remodeling, cartilage degradation, bone development, bone mineralization and ossification. Required for normal embryonic bone development and ossification. Plays a role in the healing of bone fractures via endochondral ossification. Plays a role in wound healing, probably by a mechanism that involves proteolytic activation of TGFB1 and degradation of CTGF. Plays a role in keratinocyte migration during wound healing. May play a role in cell migration and in tumor cell invasion. [UniProt]

Highlight

Related products:

[MMP13 antibodies](#); [MMP13 ELISA Kits](#);

Related news:

[Detecting MMPs and their non-ECM substrates](#)

New ELISA data calculation tool:

[Simplify the ELISA analysis by GainData](#)

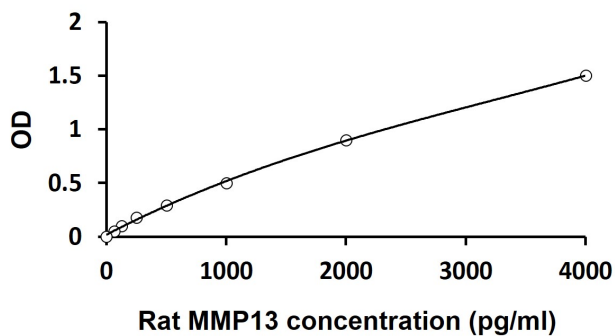
PTM

The proenzyme is activated by removal of the propeptide; this cleavage can be effected by other matrix metalloproteinases, such as MMP2, MMP3 and MMP14 and may involve several cleavage steps. Cleavage can also be autocatalytic, after partial maturation by another protease or after treatment with 4-aminophenylmercuric acetate (APMA) (in vitro).

N-glycosylated.

Tyrosine phosphorylated by PKDCC/VLK. [UniProt]

Images



ARG81632 Rat MMP13 ELISA Kit standard curve image

ARG81632 Rat MMP13 ELISA Kit results of a typical standard run with optical density reading at 450 nm.