ARG70280
Human MMP13 recombinant protein (Active) (His-tagged, C-ter)

Package: 50 µg
Store at: -20°C

Summary

Product Description	HEK293 expressed, His-tagged (C-ter) Active Human MMP13 recombinant protein.
Tested Reactivity	Hu
Tested Application	FuncSt, SDS-PAGE
Target Name	MMP13
Species	Human
A.A. Sequence	Leu20 - Cys471 of Human MMP13 (NP_002418.1) with 6X His tag at the C - terminus.
Expression System	HEK293
Activity	Active
Activity Note	Measured in a cell migration assay using A549 cells. 10 ng/ml of Recombinant Human MMP-13 can effectively induce A549 cells migration.
Alternate Names	CLG3; EC 3.4.24.-; MANDP1; MMP-13; Collagenase 3; Matrix metalloproteinase-13

Properties

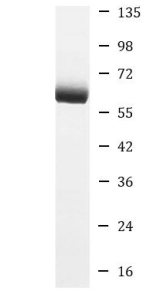
Form	Powder
Purification Note	0.22 µm filter sterilized. Endotoxin level is 95% (by SDS-PAGE)
Buffer	PBS (pH 7.4)
Reconstitution	Reconstitute to a concentration of 0.1 - 0.5 mg/ml in sterile distilled water.
Storage instruction	For long term, lyophilized protein should be stored at -20°C or -80°C. After reconstitution, aliquot and store at -20°C for up to one month, at 2-8°C for up to one week. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	MMP13
Gene Full Name	matrix metallopeptidase 13
Background	This gene encodes a member of the peptidase M10 family of matrix metalloproteinases (MMPs). Proteins in this 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. The encoded preproprotein is proteolytically processed to generate the mature protease. This protease 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. Mutations in this gene are associated with metaphyseal anadysplasia. This gene is part of a cluster of MMP genes on chromosome 11. [provided by RefSeq, Jan 2016]
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 CCN2. 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 CCN2. Plays a role in keratinocyte migration during wound healing. May play a role in cell migration and in tumor cell invasion. [UniProt]
Calculated Mw	54 kDa
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]
Cellular Localization	Secreted, extracellular space, extracellular matrix. Secreted. [UniProt]

Images



Human MMP13 recombinant protein (His-tagged, C-ter)

ARG70280 Human MMP13 recombinant protein (Active) (His-tagged, C-ter) SDS-PAGE image

SDS-PAGE analysis of ARG70280 Human MMP13 recombinant protein (Active) (His-tagged, C-ter).