

Recombinant Human MMP2 protein, His-tagged

Cat. No. MMP2-890H Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant Human MMP2 protein (Ala30-Cys660), fused to His tag at C-terminus, was expressed in human 293 cells (HEK293).

Species Human

Source HEK293

ProteinLength 631

Description

Matrix metalloproteinase-2 (MMP-2) is also known as 72 kDa type IV collagenase, 72 kDa gelatinase, Gelatinase A and CLG4A, which belongs to the peptidase M10A family. MMP-2/CLG4A contains 3 fibronectin type-II domains and 4 hemopexin-like domains. MMP-2 is produced by normal skin fibroblasts. MMP-2 cleaves the collagen-like sequence Pro-Gln-Gly-|-Ile-Ala-Gly-Gln. MMP2 involved in diverse functions such as remodeling of the vasculature, angiogenesis, tissue repair, tumor invasion, inflammation, and atherosclerotic plaque rupture. As well as degrading extracellular matrix proteins, can also act on several nonmatrix proteins such as big endothelial 1 and beta-type CGRP promoting vasoconstriction. Also cleaves KISS at a Gly-|-Leu bond. Appears to have a role in myocardial cell death pathways. Contributes to myocardial oxidative stress by regulating the activity of GSK3beta. Cleaves GSK3beta in vitro. PEX, the C-terminal non-catalytic fragment of MMP2, possesses anti-angiogenic and anti-tumor properties and inhibits cell migration and cell adhesion to FGF2 and vitronectin.

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Form	Lyophilized from 0.22 um filtered solution in 50 mM Tris, 150 mM NaCl, pH8.0, 10% trehalose.
Molecular Mass	The protein has a calculated MW of 71.8 kDa. The predicted N-terminus is Ala 30. The reducing (R) protein migrates as 66-71 kDa in SDS-PAGE .
Endotoxin	Less than 1.0 EU per ug by the LAL method.
Purity	>92% as determined by SDS-PAGE.
Storage	For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower. Please avoid repeated freeze-thaw cycles. This product is stable after storage at: -20 centigrade to -70 centigrade for 12 months in lyophilized state; -70 centigrade for 3 months under sterile conditions after reconstitution.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 ug/ul. Centrifuge the vial at 4°C before opening to recover the entire contents.

GENE INFORMATION

Gene Name	MMP2
Official Symbol	MMP2
Synonyms	MMP2; matrix metalloproteinase 2 (gelatinase A, 72kDa gelatinase, 72kDa type IV collagenase); CLG4, CLG4A, matrix metalloproteinase 2 (gelatinase A, 72kD gelatinase, 72kD type IV collagenase) , matrix metalloproteinase 2 (gelatinase A, 72kDa gelatinase, 72kDa type IV collagenase); 72 kDa type IV collagenase; TBE 1; MMP-2; gelatinase A; 72 kDa gelatinase; collagenase type IV-A; neutrophil

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gelatinase; matrix metalloproteinase-2; matrix metalloproteinase-II; CLG4; MONA; CLG4A; TBE-1; MMP-II

Gene ID 4313

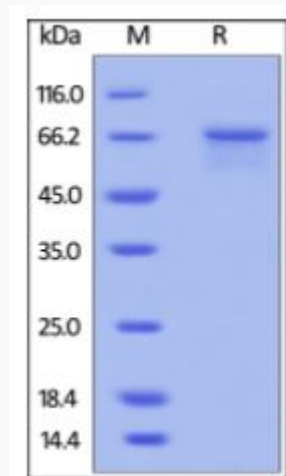
mRNA Refseq NM_001127891

Protein Refseq NP_001121363

MIM 120360

UniProt ID P08253

SDS-PAGE of MMP2-890H



Human MMP-2, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 92%.

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