

Active Recombinant Pre-activated Human MMP2 Protein (110-660)

Cat. No. MMP2-03H **Lot. No.** (See product label)

SPECIFICATION

Product Overview

This product is expressed in human HEK 293 cells as a glycoprotein with a calculated molecular mass of 72 kDa (amino acids 110-660). The DTT-reduced protein migrates as a 75-80 kDa polypeptide on SDS-PAGE because of glycosylation. This protein is produced in human cells, without the use of serum. The human cells expression system allows human like glycosylation and folding, and often supports higher specific activity of the protein. This recombinant protein is expressed without artificial tags. Highly purified protein without artificial fusion tags

Species Human

Source HEK293

ProteinLength 110-660

Description

This gene is a member of the matrix metalloproteinase (MMP) gene family, that are zinc-dependent enzymes capable of cleaving components of the extracellular matrix and molecules involved in signal transduction. The protein encoded by this gene is a gelatinase A, type IV collagenase, that contains three fibronectin type II repeats in its catalytic site that allow binding of denatured type IV and V collagen and elastin. Unlike most MMP family members, activation of this protein can occur on the cell membrane. This enzyme can be activated extracellularly by proteases, or, intracellularly by its S-glutathiolation with no requirement for proteolytical removal of the pro-domain. This protein is thought to be involved in multiple pathways including roles in the nervous system

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m, endometrial menstrual breakdown, regulation of vascularization, and metastasis. Mutations in this gene have been associated with Winchester syndrome and Nodulosis-Arthropathy-Osteolysis (NAO) syndrome. Alternative splicing results in multiple transcript variants encoding different isoforms.

Bio-activity ≥1,000 pmol/min/μg

Molecular Mass 72 kDa

Notes This product was pre-activated in vitro using 4-Aminophenylmercuric acetate (APMA). Thus, it is active and ready for use. In order to save our customers from handling hazardous materials, and for environmental saving, the highly toxic and fatal APMA was removed from the final preparation.

Storage Store the product at –70 centigrade. The product retains its activity for at least 2 years as supplied. After initial thawing, it is recommended to store the protein in working aliquots at –70 centigrade.

Storage Buffer This product is supplied as a 0.22 μm-filtered solution, containing 20 mM Trizma®, pH 7.5, containing 8 mM CaCl₂, 119 mM NaCl, 20% glycerol, and 0.05% Brij® 35.

Shipping Dry ice

GENE INFORMATION

Gene Name MMP2 matrix metalloproteinase 2 [Homo sapiens (human)]

Official Symbol MMP2

Synonyms MMP2; matrix metalloproteinase 2; CLG4; MONA; CLG4A; MMP-2; TBE-1; MMP-II; 72 kDa type IV collagenase; collagenase type IV-A; matrix metalloproteinase 2

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(gelatinase A, 72kDa gelatinase, 72kDa type IV collagenase); matrix metalloproteinase-2; matrix metalloproteinase-II; neutrophil gelatinase; EC 3.4.24.24

Gene ID 4313

mRNA Refseq NM_004530

Protein Refseq NP_004521

MIM 120360

UniProt ID P08253

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