

Recombinant Human MMP2, His-tagged

Cat. No. MMP2-29435TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant fragment, containing 252 aa, corresponding to amino acids 409-660 of Human MMP2.
Species	Human
Source	E.coli
ProteinLength	409-660 a.a.
Description	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 MMPs 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.
Conjugation	HIS
Tissue specificity	Produced by normal skin fibroblasts. PEX is expressed in a number of tumors including gliomas, breast and prostate.

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Biological activity	The bioactivity was measured by HMEC cell line, MMP2 protein (Hemopexin Domain) can inhibit the transmembrane activity of HMEC under the stimulation of VEGF.
Form	Lyophilised:Lyophilized with 2mM Tris pH-7.4. Reconstitute MMP2 protein (Hemopexin Domain) in sterile 18MOhm-cm H2O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.
Purity	>95% by SDS-PAGE
Storage buffer	Preservative: NoneConstituents: 2mM Tris, pH 7.4
Storage	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Sequences of amino acids	MGLEHSQDPG ALMAPIYTYT KNFRLSQDDI KGIQELYGAS PDIDLGTGPT PTLGPVTP EI CKQDIVFDGI AQIRGEIFFF KDRFIWRTVT PRDKPMGPLL VATFWPELPE KIDAVYEAPQ EEKAVFFAGN EYWIYSASTL ERGYPKPLTS LGLPPDVQRV DAAFNWSKNK KTYIFAGDKF WRYNEVKKKM DPGFPKLIAD AWNAIPDNL D AVVDLQGGGH SYFFKGAYYL KLENQSLKSV KFGSIKSDWL GC
Sequence Similarities	Belongs to the peptidase M10A family.Contains 3 fibronectin type-II domains.Contains 4 hemopexin-like domains.

GENE INFORMATION

Gene Name	MMP2 matrix metallopeptidase 2 (gelatinase A, 72kDa gelatinase, 72kDa type IV collagenase) [Homo sapiens]
Official Symbol	MMP2
Synonyms	MMP2; matrix metallopeptidase 2 (gelatinase A, 72kDa gelatinase, 72kDa type IV

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	collagenase); CLG4, CLG4A, matrix metalloproteinase 2 (gelatinase A, 72kD gelatinase, 72kD type IV collagenase) , matrix metalloproteinase 2 (gelatinase A, 72kDa gelatinase,
Gene ID	4313
mRNA Refseq	NM_001127891
Protein Refseq	NP_001121363
MIM	120360
Uniprot ID	P08253
Chromosome Location	16q13-q21
Pathway	ATF-2 transcription factor network, organism-specific biosystem; Angiopoietin receptor Tie2-mediated signaling, organism-specific biosystem; Bladder cancer, organism-specific biosystem; Bladder cancer, conserved biosystem; Diabetes pathways, organism-specific biosystem;
Function	metal ion binding; metalloendopeptidase activity; peptidase activity; zinc ion binding;