

Active Recombinant Human MMP14, His-tagged

Cat. No. MMP14-39H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human MMP14(Ala21-Gly284), fused with a C-terminal 10-His tag, was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	21-284 a.a.
Description	<p>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. However, the protein encoded by this gene is a member of the membrane-type MMP (MT-MMP) subfamily; each member of this subfamily contains a potential transmembrane domain suggesting that these proteins are expressed at the cell surface rather than secreted. This protein activates MMP2 protein, and this activity may be involved in tumor invasion.</p>
Predicted N Terminal	Ala21
Form	Pro and catalytic domains. Supplied as a 0.2 µm filtered solution in Tris, NaCl, CaCl ₂ , ZnCl ₂ and Glycerol.

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Bio-activity	Measured by its ability to cleave a fluorogenic peptide substrate Mca-KPLGL-Dpa-AR-NH ₂ .
Molecular Mass	Predicted Molecular Mass:31 kDaSDS-PAGE:31 kDa, reducing conditions
Endotoxin	< 1.0 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE under reducing conditions and visualized by silver stain.
Storage	Avoid repeated freeze-thaw cycles.6 months from date of receipt, -20 to -70 °C as supplied.3 months, -20 to -70 °C under sterile conditions after opening.

GENE INFORMATION

Gene Name	MMP14 matrix metalloproteinase 14 (membrane-inserted) [Homo sapiens (human)]
Official Symbol	MMP14
Synonyms	MMP14; matrixmetalloproteinase 14 (membrane-inserted); 1; MMP-14; MMP-X1;MT-MMP; MT1MMP; MTMMP1; MT1-MMP; MT-MMP 1; matrix metalloproteinase-14;OTTHUMP00000027917; membrane type 1 metalloproteinase; membrane-type matrixmetalloproteinase 1; membrane-type-1 matrix metalloproteinase; matrixmetalloproteinase 14 (membrane-inserted)
Gene ID	4323
mRNA Refseq	NM_004995
Protein Refseq	NP_004986
MIM	600754

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UniProt ID	P50281
Chromosome Location	14q11.2
Pathway	GnRH signaling pathway; HIF-2-alpha transcription factor network; MatrixMetalloproteinases; Senescence and Autophagy; Signaling events mediated by focal adhesion kinase
Function	calcium ion binding; integrin binding; metalloendopeptidase activity; peptidase activator activity; protein binding; sequence-specific DNA binding transcription factor activity; zinc ion binding

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