

Active Recombinant Human MMP14, His-tagged

Cat. No. MMP14-38H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human MMP14(Ala21-Ser538), fused with an N-terminal human CD33 signal sequence, Arg108Pro mutation and a C-terminal 6-His tag, was expressed in Mouse NSO Cells.
Species	Human
Source	Mammalian Cells
ProteinLength	21-538 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 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.
Predicted N Terminal	Ala21
Form	Supplied as a 0.2 µ filtered solution in Sodium Acetate, NaCl, CaCl ₂ , 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: 60 kDa SDS-PAGE: 60-65 kDa, reducing conditions
Endotoxin	< 1.0 EU per 1 µg of the protein by the LAL method.
Purity	>80%, by SDS-PAGE under reducing conditions and visualized by Colloidal Coomassie® Blue stain at 5 µg per lane.
Storage	Avoid repeated freeze-thaw cycles. 6 months from date of receipt, -70 °C as supplied. 3 months, -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

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MIM	600754
UniProt ID	P50281
Chromosome Location	14q11.2
Pathway	GnRHsignaling pathway; HIF-2-alpha transcription factor network; MatrixMetalloproteinases; Senescence and Autophagy; Signaling events mediated byfocal adhesion kinase
Function	calciumion binding; integrin binding; metalloendopeptidase activity; peptidaseactivator activity; protein binding; sequence-specific DNA bindingtranscription factor activity; zinc ion binding

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