

Active Recombinant Human MMP19 protein, Catalytic Domain No Activation Required

Cat. No. MMP19-161H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human matrix metalloproteinase-19 isorform 1 RASI-1 (MMP-19, Matrix metalloproteinase RASI, MMP-18) catalytic domain cloned from human cDNA was expressed in <i>E.coli</i> . The enzyme consists of the catalytic domain of human MMP-19, residues 101-256 with an additional methionine at N-term. Swiss prot accession: Q99542. MW=17.6kDa calculated.
Species	Human
Source	E.coli
ProteinLength	101-256 a.a.
Description	Matrix metalloproteinase-19 is an enzyme that in humans is encoded by the MMP19 gene. 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. This protein is expressed in human epidermis and endothelial cells and it has a role in cellular proliferation, migration, angiogenesis and adhesion. Multiple transcript variants encoding distinct isoforms have been identified for this gene.
Purity	> 90% by SDS-PAGE. In an SDS-PAGE gel, the enzyme runs as a monomer

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	<20kDa.
Specific Activity	>1.5U/μg. 1U=100pmol/min at 25°C using a colorimetric assay with thiopeptolide Ac-Pro-Leu-Gly-[2-mercapto-4-methyl-pentanoyl]-Leu-Gly-OC2H5 (Biomol).
Usage	Study enzyme kinetics, cleave target substrates and screen of inhibitors.
Supplied As	0.2mg/ml in 20mM Tris, pH7.2, 10mM CaCl ₂ , 0.1mM ZnCl ₂ , 0.3M NaCl, 0.2M Acetohydroxamic Acid (AHA). The concentration is calculated by the analysis of the absorbance at 280nm (e ₂₈₀ =25440M ⁻¹ cm ⁻¹ calculated).
Storage	-80°C. It is recommended that thawing and dilution of the enzyme be done in ice and within as short a time as possible before start of the assay. After initial defrost, aliquot product into individual tubes and refreeze at -80°C. Avoid repeated freeze/defrost cycles.

GENE INFORMATION

Gene Name	MMP19 matrix metalloproteinase 19 [Homo sapiens]
Synonyms	MMP19; matrix metalloproteinase 19; MMP18; RASI-1; MMP-19; MMP-18; matrix metalloproteinase 19; Matrix metalloproteinase-19; EC 3.4.24.-; Matrix metalloproteinase RASI; Matrix metalloproteinase-18; Matrix metalloproteinase 18
Gene ID	4327
mRNA Refseq	NM_002429
Protein Refseq	NP_002420
MIM	601807

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UniProt ID	Q99542
Chromosome Location	12q14
Function	calcium ion binding; metalloendopeptidase activity; peptidase activity; zinc ion binding

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