

Active Recombinant Cynomolgus Monkey MMP9 Protein (Ala20-Asp707)

Cat. No. MMP9-13C **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Cynomolgus Monkey MMP9 Protein (Ala20-Asp707) without tag was expressed in Chinese Hamster Ovary cell line.
Species	Cynomolgus
Source	CHO
ProteinLength	20-707 a.a.
Description	Matrix metalloproteinase 9 (MMP-9), also known as gelatinase B, is a member of the MMP zinc-dependent family of endopeptidases. It cleaves and degrades a variety of targets including important extracellular matrix (ECM) proteins: gelatin, collagen, and elastin, as well as chemokines and extracellular domain plasma membrane proteins. MMP-9 is synthesized and secreted by several cells including neutrophils, macrophages, fibroblasts, and endothelial cells. The monomeric MMP-9 protein is composed of several distinct domains including a signal sequence, a pro-domain which is cleaved upon activation, and a catalytic domain at the n-terminus followed by a hinge region and the c-terminal hemopexin-like domains that contribute to substrate recognition and specificity. The catalytic domain contains fibronectin type II domains, an active site, and a zinc binding site. MMP-9 can exist as a monomer, disulfide-linked homodimer, or heterodimer in complex with lipocalin-2. MMP-9 activity is regulated at several levels via transcription, post-transcription, translation, secretion, activation, and inhibition. As MMP-9 is involved in ECM remodeling and membrane

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protein cleavage, it has been widely associated to play a role in several diseases including cancers, autoimmune, and cardiovascular diseases. MMP-9 is consequently an important target of interest for inhibition. Additionally, it has been found to be a potential biomarker for many types of cancer including pancreatic, osteosarcoma, lung, ovarian, and breast.

Form	Proform
Bio-activity	Measured by its ability to cleave the fluorogenic peptide substrate, Mca-PLGL-Dpa-AR-NH ₂ . The specific activity is >750 pmol/min/μg.
Molecular Mass	Predicted Molecular Mass: 76 kDa SDS-PAGE: 83-95 kDa, under reducing conditions
N-terminal Sequence Analysis	Ala20
Endotoxin	<0.10 EU/μg of the protein by the LAL method.
Purity	>90%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 6 months from date of receipt, -20 to -70 centigrade as supplied. 3 months, -20 to -70 centigrade under sterile conditions after opening.
Storage Buffer	Supplied as a 0.2 μm filtered solution in Tris, CaCl ₂ , NaCl and Brij-35.
Shipping	The product is shipped with dry ice or equivalent.

GENE INFORMATION

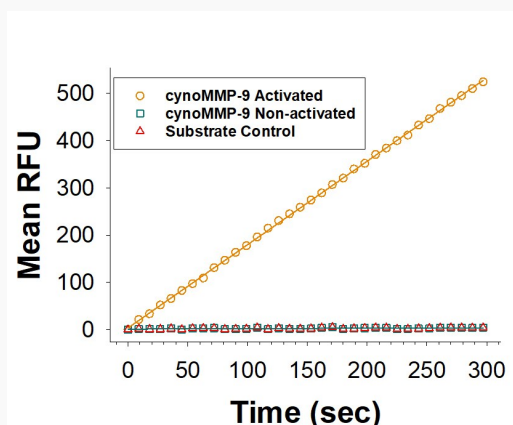
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Gene Name	MMP9 matrix metallopeptidase 9 [<i>Macaca fascicularis</i> (crab-eating macaque)]
Official Symbol	MMP9 matrix metallopeptidase 9 [<i>Macaca fascicularis</i> (crab-eating macaque)]
Synonyms	MMP9; matrix metallopeptidase 9; matrix metalloproteinase-9; matrix metallopeptidase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV collagenase)
Gene ID	102117693
mRNA Refseq	XM_005569214
Protein Refseq	XP_005569271

Enzyme Activity

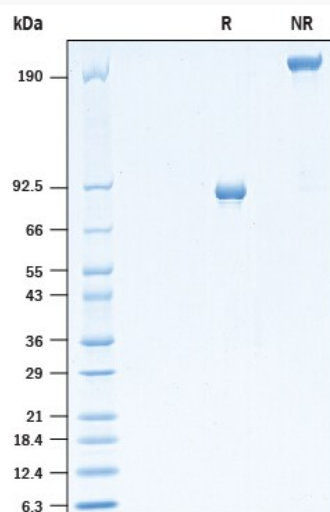


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SDS-PAGE



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