

## Active Recombinant Cynomolgus Monkey MMP9 Protein (Ala20-Asp707)

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

### SPECIFICATION

|                         |   |
|-------------------------|---|
| <b>Product Overview</b> | Recombinant Cynomolgus Monkey MMP9 Protein (Ala20-Asp707) without tag was expressed in Chinese Hamster Ovary cell line.   |
| <b>Species</b>          | Cynomolgus  |
| <b>Source</b>           | CHO   |
| <b>ProteinLength</b>    | 20-707 a.a.   |
| <b>Description</b>      | <p>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</p> |

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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.

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

## GENE INFORMATION

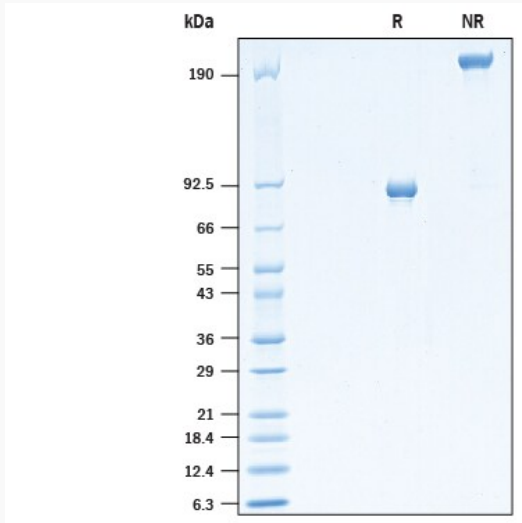
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|                        |  |
|------------------------|--|
| <b>Gene Name</b>       | MMP9 matrix metallopeptidase 9 [ <i>Macaca fascicularis</i> (crab-eating macaque) ]  |
| <b>Official Symbol</b> | MMP9 matrix metallopeptidase 9 [ <i>Macaca fascicularis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

**SDS-PAGE**

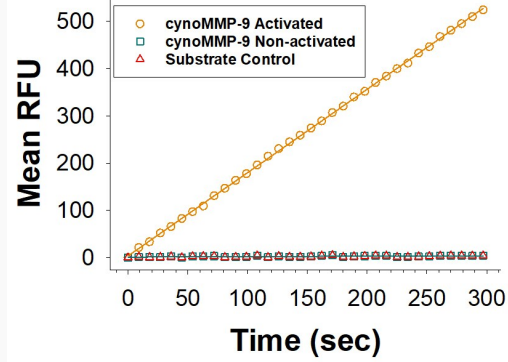


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**Enzyme Activity**



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