

## Recombinant Human MMP12 protein, His-tagged

Cat. No. MMP12-06H    Lot. No. (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant Human MMP12(Ala290-Gly469) fused with His tag at N-terminal was expressed in E. coli.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>ProteinLength</b>    | 290-469 a.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Description</b>      | This gene encodes a member of the peptidase M10 family of matrix metalloproteinases (MMPs). Proteins in this 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. The encoded preproprotein is proteolytically processed to generate the mature protease. This protease degrades soluble and insoluble elastin. This gene may play a role in aneurysm formation and mutations in this gene are associated with lung function and chronic obstructive pulmonary disease (COPD). This gene is part of a cluster of MMP genes on chromosome 11. |
| <b>Form</b>             | PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Molecular Mass</b>   | 23.2kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Endotoxin</b>        | <1.0EU per 1g (determined by the LAL method)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

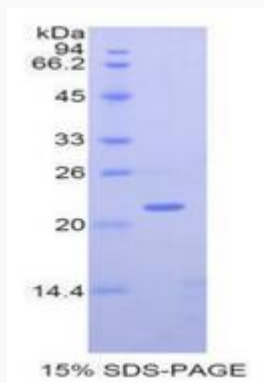
|                            |                                                                                                                                                                                                                             |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Purity</b>              | > 95%                                                                                                                                                                                                                       |
| <b>Applications</b>        | SDS-PAGE; WB; ELISA; IP.                                                                                                                                                                                                    |
| <b>Storage</b>             | Avoid repeated freeze/thaw cycles. Store at 2-8 centigrade for one month. Aliquot and store at -80 centigrade for 12 months.                                                                                                |
| <b>Reconstitution</b>      | Reconstitute in PBS or others.                                                                                                                                                                                              |
| <b>GENE INFORMATION</b>    |                                                                                                                                                                                                                             |
| <b>Gene Name</b>           | MMP12 matrix metalloproteinase 12 (macrophage elastase) [ Homo sapiens ]                                                                                                                                                    |
| <b>Official Symbol</b>     | MMP12                                                                                                                                                                                                                       |
| <b>Synonyms</b>            | MMP12; matrix metalloproteinase 12 (macrophage elastase); matrix metalloproteinase 12 (macrophage elastase); macrophage metalloelastase; HME; macrophage elastase; matrix metalloproteinase-12; ME; MME; MMP-12; MGC138506; |
| <b>Gene ID</b>             | 4321                                                                                                                                                                                                                        |
| <b>mRNA Refseq</b>         | NM_002426                                                                                                                                                                                                                   |
| <b>Protein Refseq</b>      | NP_002417                                                                                                                                                                                                                   |
| <b>MIM</b>                 | 601046                                                                                                                                                                                                                      |
| <b>UniProt ID</b>          | P39900                                                                                                                                                                                                                      |
| <b>Chromosome Location</b> | 11q22.3                                                                                                                                                                                                                     |

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|                 |                                                                                                                   |
|-----------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Pathway</b>  | Matrix Metalloproteinases, organism-specific biosystem;                                                           |
| <b>Function</b> | calcium ion binding; endopeptidase activity; metalloendopeptidase activity; peptidase activity; zinc ion binding; |



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