Product: **Matrix Metalloproteinase-7 (MMP-7), human, recombinant**
Catalog #: **12-4317**
Amount: **5 µg**

DESCRIPTION: Recombinant human Matrix Metalloproteinase-7 (rHuMMP-7)
Matrix metalloproteinase-7 (MMP-7) also known as matrilysin and PUMP (EC 3.4.24.23) cleaves a number of substrates including collagen types IV and X, elastin, fibronectin, gelatin, laminin and proteoglycans. MMP-7 is closely related to the stromelysin family members but is encoded by a different gene. MMP-7 is the smallest of all the MMPs consisting of a pro-peptide domain and a catalytic domain. It lacks the hemopexin-like domain common to other members of the MMPs. MMP-7 is secreted as a 28 kDa proenzyme and can be activated in vitro by organomercurials and trypsin and in vivo by MMP-3 to a 18 kDa active MMP-7 enzyme. Once activated, MMP-7 can activate pro-MMP-1 and pro-MMP-9 but not pro-MMP-2. MMP-7 is widely expressed having been reported in elevated levels in cycling endometrium as well as in colorectal cancers and adenomas, hepatocellular carcinomas, rectal carcinomas, and approximately 50% of gliomas. Recombinant MMP-7 produced in E.Coli is a single, non-glycosylated, polypeptide chain containing having a molecular mass of 19.13kDa.

SOURCE: *Escherichia coli expression system*

PURITY: > 95%, as determined by:
(a) Analysis by RP-HPLC and anion-exchange FPLC
(b) Analysis by reducing and non-reducing SDS-PAGE Silver Stained gel

ENDOTOXIN: Less than 0.1 ng/µg (IEU/µg) of rHuMMP-7

DIMERS & AGGREGATES: Less than 1% as determined by silver stained SDS-PAGE gel analysis

UNIT DEFINITION: One unit is defined as the digestion of 1 µg Azocoll/min at 37°C

FORM: Purified, in 10mM HEPES (pH 7.4) ,5mM $CaCl_2$ and 150mM NaCl.

APPLICATION: Western Blotting (1:1K-5K for neat serum and 1-10 ug/ml for affinity pure antibody using ECL technique).
Control peptide can be used to coat ELISA plates at 1 ug/ml and detected with antibodies (1:10-50K for neat serum and 0.5-1 ug/ml for affinity pure).
Immunohistochemistry & Immunofluorescence: Not tested

STORAGE: -20°C (aliquot), avoid freezing and thawing cycles

BIOLOGICAL ACTIVITY: rHuMMP-7is fully biologically active when compared to tandard.
The specific activity was found to be 3100IU/mg.

REFERENCE:

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