

## 32-2543: MMP 1 HEK Recombinant Protein

**Alternative Name :** Interstitial collagenase,Fibroblast collagenase,Matrix metalloproteinase-1,MMP-1,MMP1,CLG,CLGN.

### Description

Source : HEK293 cells. MMP-1 Human Recombinant produced in HEK293 cells is a proform of the Human MMP1 (Met1-Asn469) and fused with a polyhistidine tag at the C-terminus, having an Mw of 52kDa. MMP-1 is purified by proprietary chromatographic techniques. MMP-1 (interstitial collagenase) can break down a wide range of substrates including types I, II, III, VII, VIII, and X collagens as well as L-Selectin, pro-TNF, IL-1, IGFBP-3, IGFBP-5, casein, gelatin,  $\alpha$ 1 antitrypsin, myelin basic protein, pro-MMP2 and pro-MMP9. A significant function of MMP-1 is the degradation of fibrillar collagens in extracellular matrix remodeling. MMP-1 is expressed in fibroblasts, keratinocytes, endothelial cells, monocytes and macrophages. MMP1 can be divided into a number of distinct domains: a prodomain which is cleaved on activation, a catalytic domain containing the zinc binding site and a short hinge region with a carboxyl terminal domain. MMP1 is part of a cluster of MMP genes which localize to chromosome 11q22.3.

### Product Info

<b>Amount :</b>	10 $\mu$ g
<b>Purification :</b>	Greater than 95% as determined by SDS-PAGE.
<b>Content :</b>	The MMP-1 is supplied as a 0.2 $\mu$ m filtered solution in MES, NaCl, Glycerol and Brij35.
<b>Storage condition :</b>	Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time.Avoid multiple freeze-thaw cycles.

### Application Note

The activity was measured by its ability to cleave fluorogenic peptide substrate, Mca-KPLGL-Dpa-AR-NH<sub>2</sub>, The specific activity is > 400 pmoles/min/ $\mu$ g.Recombinant Human MMP-1 protein pro form needs to be activated with p-aminophenylmercuric acetate (APMA).Activation Protocol:1. Dilute MMP1 to 50 $\mu$ g/ml in the Assay Buffer: 50mM Tris, 10mM CaCl<sub>2</sub>, 150mM NaCl, 0.05% (w/v) and Brij 35, pH 7.5.2. Activate MMP1 by adding APMA to a final concentration of 1mM. and 100mM stock in DMSO.3. Incubate at 37 $\pm$ 0.5°C for 2 hours.

