

## 32-7342: Recombinant Human Matrix Metalloproteinase-1/MMP-1 (C-6His)

**Gene :** MMP1  
**Gene ID :** 4312  
**Uniprot ID :** P03956

### Description

Source: Human Cells.  
MW :52.88kD.

Recombinant Human Matrix Metalloproteinase-1 is produced by our Mammalian expression system and the target gene encoding Phe20-Asn469 is expressed with a 6His tag at the C-terminus. Matrix Metalloproteinase-1 (MMP-1) is expressed by fibroblasts, keratinocytes, endothelial cells, monocytes and macrophages. MMP1 contains several distinct domains: a prodomain that is cleaved upon activation, a catalytic domain containing the zinc binding site, a short hinge region, and a carboxyl terminal (hemopexin like) domain. MMP-1 can degrade a broad range of substrates including types I, II, III, VII, VIII, and X collagens as well as casein, gelatin,  $\alpha$ 1 antitrypsin, myelin basic protein, L-Selectin, pro-TNF, IL1, IGFBP3, IGFBP5, pro-MMP2, and pro-MMP9. A significant role of MMP1 is the degradation of fibrillar collagens in extracellular matrix remodeling, characterized by the cleavage of the interstitial collagen triple helix into 3/4, 1/4 fragments. MMP1 may also be involved in enzyme cascades, cytokine regulation and cell surface molecule modulation.

### Product Info

**Amount :** 10  $\mu$ g / 50  $\mu$ g  
**Content :** Supplied as a 0.2  $\mu$ m filtered solution of 20mM MES, 150mM NaCl, 0.05% Brij35, pH 5.5.  
**Storage condition :** Store at -20°C, stable for 6 months after receipt. Please minimize freeze-thaw cycles.  
**Amino Acid :** FPATLETQE QD VDLVQKYLEKYYNLKNDGRQVEKRRNSGPVVEKLKQMQE FFG LKVTGKPDAETL  
KVMKQPRCGVPDVAQFVLTEGNPRWEQTHLTYRIENYTPDLPRADV DHAIEKAFQLWSNV TPLTF  
TKVSEGQADIMISFVRGDHRD NSPFDGPGGNLAHAFQPGPGIGGDAHFDEDERWTNNFREYNLH  
RVAAHELGHSLGLSHSTDIGALMYPSTYFSGDVQLAQDDIDGIQAIYGRSQNPVQPIGPQTPKACD  
SKLTFDAIT TIRGEVMFFKDRFYMR TNPFYPEVELNFISVFWPQLPNGLEAAYEFADRDEV RFFKGN  
KYWAVQGGQNV LHGYPKDIYSSFGFPRTVKHIDAAL SEENTGKTYFFVANKY WRYDEYKRSM DPGY  
PKMIAHDFPGIGHKVD AVMKDGFFYFFHGTRQYKFD PKTKRILT LQKANSWFNCRKNVD HHHHHH  
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### Application Note

**Endotoxin :** Less than 0.1 ng/ $\mu$ g (1 IEU/ $\mu$ g) as determined by LAL test.