

Datasheet: PHP257

Description:	RECOMBINANT HUMAN MMP-1
Name:	MMP-1
Other names:	INTERSTITIAL COLLAGENASE
Format:	Rec. Protein
Product Type:	Recombinant Protein
Quantity:	10 µg

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Functional Assays	▪			

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

Target Species	Human
Product Form	Purified recombinant protein - lyophilised
Reconstitution	Reconstitute with 20ul distilled water Slow to dissolve. Care should be taken during reconstitution as the protein may appear as a film at the bottom of the vial. Bio-Rad recommend that the vial is gently mixed for about 10 minutes after reconstitution for better solubility.
Preparation	Purified recombinant MMP-1 expressed in <i>E.coli</i>
Buffer Solution	Sodium phosphate Calcium chloride
Preservative Stabilisers	None present
Carrier Free	Yes
Endotoxin Level	< 1.0 EU/ug
Approx. Protein Concentrations	0.5 mg/ml after reconstitution

**External Database
Links**

UniProt:

[P03956](#) [Related reagents](#)

Entrez Gene:

[4312](#) MMP1 [Related reagents](#)

Synonyms CLG

Product Information **Recombinant Human MMP-1 antigen** produced in *E. coli* corresponds to human MMP-1 (matrix metalloproteinase 1) containing the entire catalytic N-terminal domain and the C-terminal domain. MMP-1 otherwise known as interstitial collagenase, is a member of a family of secreted zinc-dependent endoproteases, which play a role in the degradation of extracellular matrix (ECM) components, including both fibrillar and non-fibrillar collagens, laminin, basement membrane glycoprotein and fibronectin.

MMP-1 specifically cleaves types I, II, III, VII and X collagens, and also interacts with and cleaves the secreted viral Tat protein during HIV infection, resulting in a decrease in neuronal Tat's mediated neurotoxicity.

MMP-1 is overexpressed in invasive melanoma ([Ye et al. 2001](#)), colorectal ([Hinoda et al. 2001](#)) and oesophageal ([Yamashita et al. 2001](#)) cancers, and has been implicated in arthritis, atherosclerotic lesion formation, and in the repair processes of the heart after myocardial infarction ([Creemers et al. 2001](#)).

Activity MMP-1 activity was measured by its ability to cleave a chromogenic peptide MMP-1 substrate at room temperature. At an MMP-1 concentration of 2.5 µg/ml, 50% cleavage was achieved at an incubation time of approximately 25 mins.

Purity >90% by SDS PAGE and HPLC analysis

Storage Prior to reconstitution store at +4°C.
After reconstitution store at -20°C.
Storage in frost-free freezers is not recommended. This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Guarantee 3 months from date of reconstitution

**Health And Safety
Information** Material Safety Datasheet documentation #10330 available at:
10330: <https://www.bio-rad-antibodies.com/uploads/MSDS/10330.pdf>

Regulatory For research purposes only

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