

## Product datasheet for **AM08197PU-N**

### **MMP1 Mouse Monoclonal Antibody [Clone ID: SB12e]**

#### **Product data:**

Product Type:	Primary Antibodies
Clone Name:	SB12e
Applications:	ELISA, IHC, WB
Recommended Dilution:	<b>ELISA:</b> 1/3,000-1/8,000. <b>Western Blot.</b> <b>Immunohistochemistry (Frozen/Paraffin):</b> ≤ 2 µg/ml.
Reactivity:	Human
Host:	Mouse
Isotype:	IgG2b
Clonality:	Monoclonal
Immunogen:	Recombinant MMP-1.
Specificity:	This antibody is specific for Human MMP-1. <b>Does not</b> cross react with Human MMP-2, MMP-3 or MMP-9. Other species not tested.
Formulation:	100 mM Borate buffered saline, pH 8.2. No preservatives or amine-containing buffer salts added. State: Purified State: Liquid purified Ig fraction
Concentration:	lot specific
Conjugation:	Unconjugated
Storage:	Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	matrix metalloproteinase 1
Database Link:	<a href="#">Entrez Gene 4312 Human P03956</a>



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**Background:**

The matrix metalloproteinases (MMPs) are a family of at least eighteen secreted and membrane bound zincendopeptidases. Collectively, these enzymes can degrade all the components of the extracellular matrix, including fibrillar and non fibrillar collagens, fibronectin, laminin and basement membrane glycoproteins. In general, a signal peptide, a propeptide, and a catalytic domain containing the highly conserved zinc binding site characterizes the structure of the MMPs. In addition, fibronectin like repeats, a hinge region, and a C terminal hemopexin like domain allow categorization of MMPs into the collagenase, gelatinase, stomelysin and membrane type MMP subfamilies. All MMPs are synthesized as proenzymes, and most of them are secreted from the cells as proenzymes. Thus, the activation of these proenzymes is a critical step that leads to extracellular matrix breakdown. MMPs are considered to play an important role in wound healing, apoptosis, bone elongation, embryo development, uterine involution, angiogenesis and tissue remodeling, and in diseases such as multiple sclerosis, Alzheimer's, malignant gliomas, lupus, arthritis, periodontis, glomerulonephritis, atherosclerosis, tissue ulceration, and in cancer cell invasion and metastasis.

MMP1, also known as interstitial collagenase, is the only enzyme that is able to initiate the breakdown of the interstitial collagens, types I, II, and III

**Synonyms:**

Interstitial collagenase, Matrix metalloproteinase-1, Fibroblast collagenase, MMP1, CLG

**Note:**

**Predicted Molecular Weight:** 54 kDa.