

## Anti-MMP12 Antibody (9K288)

### Product Details

Ig Type:	IgG
Reactivity:	Human
Molecular Weight:	Theoretical: 42 kDa. Actual: 42-48 kDa.
Clone:	9K288
Purification:	Protein A purified

### Applications

Verified Activity:	<ol style="list-style-type: none"><li>25 µg total protein per lane of various lysates (see on figure) probed with MMP12 monoclonal antibody, unconjugated (TMAB-08864) at 1:1000 dilution and 4°C overnight incubation. Followed by conjugated secondary antibody incubation at r. T. for 60 min.</li><li>Paraformaldehyde-fixed, paraffin embedded Human Colon Cancer; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with MMP12 Monoclonal Antibody, Unconjugated (TMAB-08864) at 1: 200 overnight at 4°C, followed by conjugation to the SP Kit (Rabbit) and DAB staining.</li><li>Paraformaldehyde-fixed, paraffin embedded Human Breast Cancer; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with MMP12 Monoclonal Antibody, Unconjugated (TMAB-08864) at 1: 200 overnight at 4°C, followed by conjugation to the SP Kit (Rabbit) and DAB staining.</li><li>Paraformaldehyde-fixed, paraffin embedded Human Esophagus Cancer; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with MMP12 Monoclonal Antibody, Unconjugated (TMAB-08864) at 1: 200 overnight at 4°C, followed by conjugation to the SP Kit (Rabbit) and DAB staining.</li><li>Paraformaldehyde-fixed, paraffin embedded Human Placenta; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with MMP12 Monoclonal Antibody, Unconjugated (TMAB-08864) at 1: 200 overnight at 4°C, followed by conjugation to the SP Kit (Rabbit) and DAB staining.</li><li>Paraformaldehyde-fixed, paraffin embedded Human Cerebrum; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with MMP12 Monoclonal Antibody, Unconjugated (TMAB-08864) at 1: 200 overnight at 4°C, followed by conjugation to the SP Kit (Rabbit) and DAB staining.</li></ol>
Application:	WB,IHC-P,IHC-Fr,IF
Recommended	WB: 1:500-2000; IHC-P: 1:100-500; IHC-Fr: 1:100-500; IF: 1:100-500

### Properties

Stability & Storage:	Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

### Antigen Details

Immunogen:	A synthesized peptide: human MMP12
Antigen Species:	Human
Gene ID:	4321
Uniprot ID:	P39900

---

### Research Background

Proteins of the matrix metalloproteinase (MMP) family are involved in the breakdown of extracellular matrix in normal physiological processes, such as embryonic development, reproduction, and tissue remodeling, as well as in disease processes, such as arthritis, metastasis, and atherosclerosis. Most MMP's are secreted as inactive proproteins which are activated when cleaved by extracellular proteinases.

MMP12 was first described in murine macrophages, later in human macrophages, and more recently in other cell types. Also known as metalloelastase, MMP12 is able to degrade elastin, entactin, laminin 1, fibronectin, type IV collagen as well as insulin B-chain and casein. MMP12 is often confused with the Serine proteinase, Leukocyte elastase (EC 3.4.21.37) because of similar nomenclature. MMP12 is structurally similar to the classical MMPs (MMP1, MMP3); it contains a propeptide with autoinhibitory cysteine switch site, a well-conserved zinc site, hinge region and hemopexin domain. MMP12 lacks a transmembrane domain and furin cleavage site. The zymogen for MMP-12 is about 54 kD, and is quickly activated to the 45 kD form; and this breaks down to cascade of active forms, ending with the common 22 kD form. Stimulated macrophages produce MMP12; it has also been found in osteosarcoma cells, synovial fibroblasts and lung fibroblasts.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481