

Basic Information

Product Name	Anti-MMP8 Antibody	
Gene Name	MMP8	
Source	Rabbit	
Isotype	IgG	
Species Reactivity	mouse, rat	
Tested Application	WB, IHC, ELISA	
Contents	500 ug/ml antibody with PBS , 0.02% Na ₂ S ₂ O ₃ , 1 mg BSA and 50% glycerol.	
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of mouse MMP-8 (120-157aa HTPQLSRAEVKTAIEKAFHVWSVASPLTFTEILQGEAD), different from the related human sequence by eleven amino acids, and from the related rat sequence by nine amino acids.	
concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	53KD	
Dilution Ratios	Western blot(WB): 1:500-2000 Immunohistochemistry in paraffin section (IHC): 1:50-400 ELISA: 1:100-1000 (Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

Storage

12 months from date of receipt, -20°C as supplied. 6 months 2 to 8°C after reconstitution. Avoid repeated freezing and thawing.

Background Information

MMP8 (Matrix metalloproteinase 8) is a member of the family of matrix metalloproteinases. It is distinct from the collagenase of skin fibroblasts and synovial cells in substrate specificity and immunologic crossreactivity. MMP8 is mapped to 11q21-q22. MMP8 is an enzyme that degrades fibrillar collagens imparting strength to the fetal membranes, is expressed by leukocytes and chorionic cytotrophoblast cells. The enzyme exhibits 58% homology to human fibroblast collagenase and has the same domain structure. It consists of a 20-residue signal peptide, and an 80-residue propeptide that is lost on autolytic activation by cleavage of an M-L bond. MMP8 was found to possess 57% identity with the deduced protein sequence for fibroblast collagenase with 72% chemical similarity. Matrix metalloproteinases (MMPs) have fundamental roles in tumor progression, but most clinical trials with MMP inhibitors have not shown improvements in individuals with cancer. MMP8 has a paradoxical protective role in cancer and provides a genetic model to evaluate the molecular basis of gender differences in cancer susceptibility.

Selected Validation Data

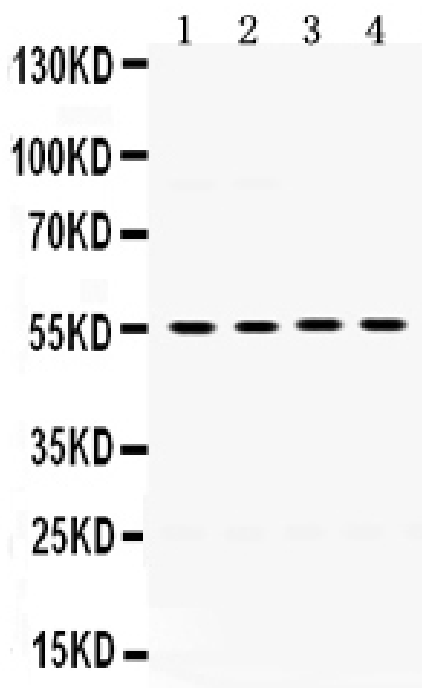


Figure 1. Western blot analysis of MMP8 using anti-MMP8 antibody (PB0766). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: Mouse Testis Tissue Lysate, Lane 2: NIH3T3 Whole Cell Lysate, Lane 3: HEPA Whole Cell Lysate, Lane 4: NRK Whole Cell Lysate. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-MMP8 antigen affinity purified polyclonal antibody (Catalog # PB0766) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for MMP8 at approximately 55KD. The expected band size for MMP8 is at 53KD.

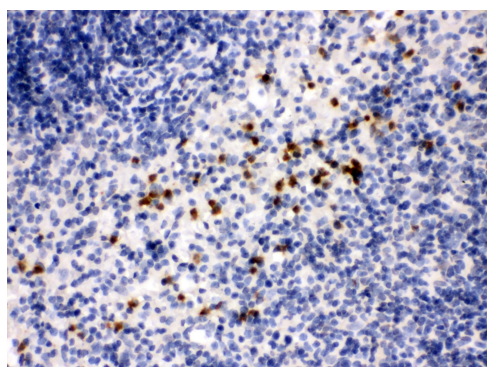


Figure 2. IHC analysis of MMP8 using anti-MMP8 antibody (PB0766).MMP8 was detected in paraffin-embedded section of Mouse Spleen Tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1µg/ml rabbit anti-MMP8 Antibody (PB0766) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.