



Product Information Sheet

Polyclonal Anti-Matrix Metalloproteinase 8, **MMP8**

Catalogue No. PA1207

Lot No. 09B01

Ig type rabbit IgG

Size 100µg/vial

Specificity

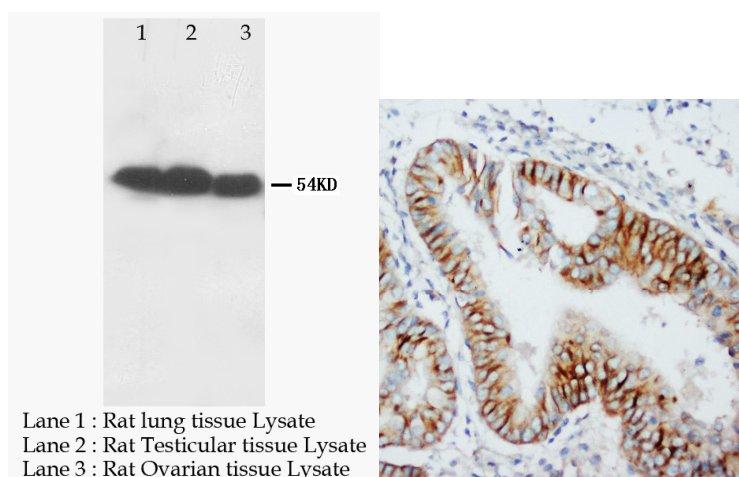
Human, mouse, rat.

No cross reactivity with other proteins.

Recommended application

Western blot

Immunohistochemistry(P)



Immunogen

A synthetic peptide corresponding to a sequence at the N-terminal of human MMP8, different to the related rat sequence by three amino acids.

Purity

Immunogen affinity purified.

Application

	Concentration	Tested Species	Concluded Species	Antigen Retrieval
WB	0.75µg/ml	Hu, Rat	Ms	-
IHC-P	1-2µg/ml	Hu, Rat	Ms	-
IHC-F	-	-	-	-
ICC	-	-	-	-

Other applications have not been tested.

Optimal dilutions should be determined by end user.

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Thimerosal, 0.05mg NaN₃.

Reconstitution

0.2ml of distilled water will yield a concentration of 500µg/ml.

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for longer time.

To reorder contact us at:

Antagene, Inc.

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BACKGROUND

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 was 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.¹ 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.² MMP8 was found to possess 57% identity with the deduced protein sequence for fibroblast collagenase with 72% chemical similarity.³ 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.⁴

REFERENCE

1. Wang, H.; Parry, S.; Macones, G.; Sammel, M. D.; Ferrand, P. E.; Kuivaniemi, H.; Tromp, G.; Halder, I.; Shriver, M. D.; Romero, R.; Strauss, J. F., III : Functionally significant SNP MMP8 promoter haplotypes and preterm premature rupture of membranes (PPROM). *Hum. Molec. Genet.* 13: 2659-2669, 2004.
2. Devarajan, P.; Mookhtiar, K.; Van Wart, H.; Berliner, N. : Structure and expression of the cDNA encoding human neutrophil collagenase. *Blood* 77: 2731-2738, 1991.
3. Hasty, K. A.; Pourmotabbed, T. F.; Goldberg, G. I.; Thompson, J. P.; Spinella, D. G.; Stevens, R. M.; Mainardi, C. L. : Human neutrophil collagenase: a distinct gene product with homology to other matrix metalloproteinases. *J. Biol. Chem.* 265: 11421-11424, 1990.
4. Balbin, M.; Fueyo, A.; Tester, A. M.; Pendas, A. M.; Pitiot, A. S.; Astudillo, A.; Overall, C. M.; Shapiro, S. D.; Lopez-Otin, C. : Loss of collagenase-2 confers increased skin tumor susceptibility to male mice. *Nature Genet.* 35: 252-257, 2003.