



Polyclonal Anti-MMP2 (Sepharose Bead Conjugate)

Catalogue No. PA1122-S	Immunogen A synthetic peptide corresponding to a sequence at the C-terminal
Lot No. 08G01	of human MMP2, identical to the related rat sequence
Ig type: rabbit IgG	Purification Immunogen affinity purified.
Size: 100µg/vial	Formulation
Specificity	50% slurry in PBS pH 7.2 with 0.01mg NaN ₃ a ₃ preservative.
Human, mouse, rat,. No cross reactivity with other proteins.	Storage
Recommended application	Store at 4°C for frequent use.
(Immunoprecipitation(IP)	

Description:

This Antagene antibody is immobilized via covalent binding of primary amino groups to N-hydroxysuccinimide (NHS)-activated sepharose beads. It is useful for immunoprecipitation assays

BACKGROUND

Matrix metalloproteinase-2 (MMP2) is a Type IV collagenase, 72-kD, which is also known as gelatinase1 and is a member of a group of secreted zinc metalloproteases2. The MMP2 gene is 17 kb long with 13 exons varying in size from 110 to 901 bp and 12 introns ranging from 175 to 4,350 bp 3, located within a region of human chromosome 16q13. In addition, The extra exons encode the amino acids of the fibronectin-like domain which has so far been found in only the 72- and 92-kDa type IV collagenase2. MMP2, which has a critical role in the binding of progelatinase A and TIMP4 via the C-terminal hemopexin-like domain (C domain)5, is functionally associated on the surface of angiogenic blood vessels6. NOT only is a likely effector of endometrial menstrual breakdown4, MMP2 is also effector and regulator of the inflammatory response7. Moreover, MMP2 could be helpful in diagnosing Takayasu arteritis8.

REFERENCE1. Nagase, H.; Barrett, A. J.; Woessner, J. F., Jr. : Nomenclature and glossary of the matrix metalloproteinases. *Matrix* Suppl. 1: 421-424, 1992. 2. Collier, I. E.; Bruns, G. A. P.; Goldberg, G. I.; Gerhard, D. S. : On the structure and chromosome location of the 72- and 92-kDa human type IV collagenase genes. *Genomics* 9: 429-434, 1991.

Huhtala, P.; Chow, L. T.; Tryggvason, K. : Structure of the human type IV collagenase gene. *J. Biol. Chem.* 265: 11077-11082, 1990.
Irwin, J. C.; Kirk, D.; Gwatkin, R. B. L.; Navre, M.; Cannon, P.; Giudice, L. C. : Human endometrial matrix metalloproteinase-2, a putative menstrual proteinase: hormonal regulation in cultured stromal cells and messenger RNA expression during the menstrual cycle. *J. Clin. Invest.* 97: 438-447, 1996.

5. Bigg, H. F.; Shi, Y. E.; Liu, Y. E.; Steffensen, B.; Overall, C. M. : Specific, high affinity binding of tissue inhibitor of metalloproteinases-4 (TIMP-4) to the COOH-terminal hemopexin-like domain of human gelatinase A. *J. Biol. Chem.* 272: 15496-15500, 1997.

6. Brooks, P. C.; Silletti, S.; von Schalscha, T. L.; Friedlander, M.; Cheresh, D. A. : Disruption of angiogenesis by PEX, a noncatalytic metalloproteinase fragment with integrin binding activity. *Cell* 92: 391-400, 1998.

7. McQuibban, G. A.; Gong, J.-H.; Tam, E. M.; McCulloch, C. A. G.; Clark-Lewis, I.; Overall, C. M. : Inflammation dampened by gelatinase A cleavage of monocyte chemoattractant protein-3. *Science* 289: 1202-1206, 2000. 8. Matsuyama, A.; Sakai, N.; Ishigami, M.; Hiraoka, H.; Kashine, S.; Hirata, A.; Nakamura, T.; Yamashita, S.; Matsuzawa, Y. : Matrix metalloproteinases as novel disease markers in Takayasu arteritis. *Circulation* 108: 1469-1473, 2003.