



Product Information Sheet

Polyclonal Anti-MMP2 (*Magnetic Bead Conjugate*)

Catalogue No. PA1122

Lot No. 08G01

Ig type: rabbit IgG

Size: 100µg/vial

Specificity

Human, rat, mouse.

No cross reactivity with other proteins.

Recommended application

ImmunoPrecipitation (IP)

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminal of human MMP2, identical to the related rat sequence.

Purity

Immunogen affinity purified.

Contents

Each vial contains 1mg/ml Magnetic Bead in PBS, pH 7.2, 0.05mg NaN₃.

Storage

Store at 4°C for frequent use.

Description

This Antagene antibody is immobilized by the covalent reaction of hydrazinonicotinamide-modified antibody with formylbenzamide-modified magnetic beads. It is useful for immunoprecipitation.

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 bp³, 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.

REFERENCE

1. 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.
3. Huhtala, P.; Chow, L. T.; Tryggvason, K. : Structure of the human type IV collagenase gene. *J. Biol. Chem.* 265: 11077-11082, 1990.
4. 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.

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