

AF6910**Monoclonal Antibody to MMP-9 - Purified**

Alternate names:	92 kDa gelatinase, 92 kDa type IV collagenase, CLG4B, GELB, Gelatinase B, MMP9, Matrix metalloproteinase-9
Quantity:	0.1 mg
Concentration:	0.5 mg/ml
Background:	Matrix metalloproteinases (MMP's) are a family of enzymes that are responsible for the degradation of extracellular matrix components such as collagen, laminin and proteoglycans. In addition to sequence homology, all MMP's share the following characteristics: the catalytic mechanism is dependent upon a zinc ion at the active center, they cleave one or more extracellular matrix components, they are secreted as zymogens which are activated by removal of an ~10 kDa segment from the N-terminus and they are inhibited by tissue inhibitor of metalloproteinases (TIMP). These enzymes are involved in normal physiological processes such as embryogenesis and tissue remodeling and may play an important role in arthritis, periodontitis, and metastasis. MMP-9 (Gelatinase B, 92 kDa gelatinase/type IV collagenase) is secreted as a 92 kDa zymogen which is proteolytically processed to the 83 kDa active form. MMP-9 shows substrate specificity toward type IV and V collagens, gelatin and elastin.
Uniprot ID:	P14780
NCBI:	NP_004985.2
GeneID:	4318
Host / Isotype:	Mouse / IgG1
Recommended Isotype Controls:	SM10P (for use in human samples), AM03095PU-N
Clone:	56-2A4
Immunogen:	Oligopeptide of RSASEVDRMFPGVPLDTHD (residue 626 - 644) on a Human matrix metalloproteinase 9 (hMMP-9, gelatinase B).
Format:	State: Liquid purified IgG fraction Buffer System: 0.1M Sodium Phosphate buffer, pH 7.0 Preservatives: None Stabilizers: 0.5% Protease-free BSA
Applications:	Western blotting: 2-5 µg/ml. Recognizes a band corresponding to pro-MMP9 at 92 kDa and an intermediate form at 83 kDa when evaluated versus the conditioned medium of Human fibrosarcoma (HT1080 cells). Immunohistochemistry on Frozen Sections: 1-5 µg/ml. Immunohistochemistry on Paraffin Sections: 1-5 µg/ml. Heat induced antigen retrieval with citrat buffer, pH 6.2 using a pressure cooker was preformed. Sections were blocking using a commercially available casein solution. Signal was generated using a commercially available polymer HRP detection system and DAB.

Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity:

The monoclonal 56-2A4 antibody specifically reacts with precursor (92 kDa) and intermediate (83 kDa) forms of Human MMP-9 and cross-reacts with Guinea Pig, Rat and Rabbit MMP-9.

Does **not** react with Human MMP-1, 2, 3, 13 and active Human MMP-9 (67 kDa) or Mouse, Rat and Bovine MMP-9.

Species Reactivity:

Tested: Human, Guinea Pig.

Storage:

Upon receipt, store undiluted (in aliquots) at -20°C.

Avoid repeated freezing and thawing.

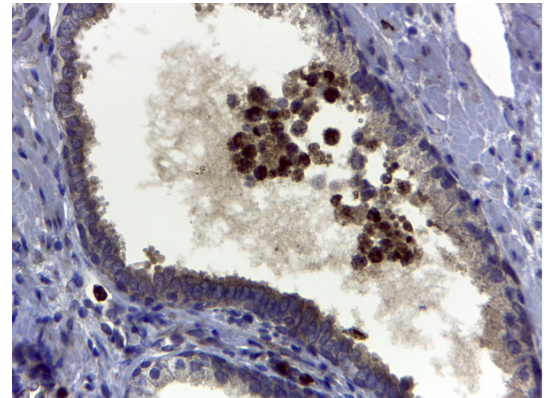
Shelf life: one year from despatch.

General Readings:

1. Kawahara, E. et al., Jpn. J. Cancer Res., 84. 409-418, 1993.
2. Fujimoto, N. et al., Clin. Chim. Acta. 221. 91-103, 1993.
3. Nakagawa, T. et al., J. Neurosurg., 81. 69-77, 1994.
4. Nomura, H. et al., Int. J. Cancer, 69. 9-16, 1996.

Pictures:

Staining of Human prostatic adenocarcinoma with MMP-9 Antibody Cat.-No AF6910 (Clone 56-2A4) at 2 µg/ml. Antibody positive in cytoplasm and in lumen secreted. 40x



Staining of Human prostatic adenocarcinoma with MMP-9 Antibody Cat.-No AF6910 (Clone 56-2A4) at 2 µg/ml. Antibody positive in cytoplasm and in lumen secreted. 10x

