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AM05379PU-N 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:	0.2 mg
Concentration:	Lot specific
Background:	The matrix metalloproteinases (MMP) are a family of peptidase enzymes responsible for the degradation of extracellular matrix components, including collagen, gelatin, fibronectin, laminin and proteoglycan. Transcription of MMP genes is differentially activated by phorbol ester, lipopolysaccharide (LPS) or staphylococcal enterotoxin B (SEB). MMP catalysis requires both calcium and zinc. MMP-9 (also designated 92-kDa type IV collagenase or gelatinase B) has been shown to degrade bone collagens in concert with MMP -1 (also designated interstitial collagenase, fibroblast collagenase or collagenase-1), and cysteine proteases and may play a role in bone osteoclastic resorption. MMP-1 is down-regulated by p53, and abnormality of p53 expression may contribute to joint degradation in rheumatoid arthritis by regulating MMP-1 expression.
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:	2C3
Immunogen:	Hybridoma produced by the fusion of splenocytes from BALB/c mice immunized with a synthetic peptide derived from the Cterminus of the human MMP9 protein and mouse myeloma Ag8563 cells.
Format:	**State:** Liquid purified Ig **Buffer System:** Phosphate buffered saline with 0.08% sodium azid
Applications:	Western Blot: 1 - 2 µg/ml. Immunohistochemistry on paraffin sections: 1 - 5 µg/ml. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	This antibody reacts to Matrix Metalloproteinase 9. **Species:** Human. Other species not tested.
Storage:	The antibody can be shipped at ambient temperature. Store (in aliquots) at -20°C only. Avoid repeated freezing and thawing. Shelf life: one year from despatch.

General Readings:

1. Wang, L. et al. (2006). Matrix metalloproteinase 2 (MMP2) and MMP9 secreted by erythropoietinactivated endothelial cells promote neural progenitor cell migration. J. Neurosci. 26(22);5996 - 6003
2. Somiari SB, Somiari RI, Heckman CM, Olsen CH, Jordan RM, Russell SJ, et al. Circulating MMP2 and MMP9 in breast cancer -- potential role in classification of patients into low risk, high risk, benign disease and breast cancer categories. Int J Cancer. 2006 Sep 15;119(6):1403-11. PubMed PMID: 16615109.
3. Chen X, Su Y, Fingleton B, Acuff H, Matrisian LM, Zent R, et al. Increased plasma MMP9 in integrin alpha1-null mice enhances lung metastasis of colon carcinoma cells. Int J Cancer. 2005 Aug 10;116(1):52-61. PubMed PMID: 15756690.

Pictures:

Left: Immunohistochemical staining of colon carcinoma using MMP9 antibody. Right: Western blot using MMP9 antibody on recombinant human proenzyme MMP9 (400 ng/lane).