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MMP-9 Antibody

Store at -20C
#3852

For Research Use Only. Not for Use in Diagnostic Procedures.

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|-------------------------------|-------------------------|-----------------------------------|----------------------------|----------------------------------|-------------------------------|--------------------------------|
| Applications: W, IP | Reactivity: H | Sensitivity: Endogenous | MW (kDa): 84, 92 | Source/Isotype: Rabbit | UniProt ID: #P14780 | Entrez-Gene Id: 4318 |
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Product Usage Information

Application

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

MMP-9 Antibody detects full length (proenzyme, 92 kDa) and cleaved (active enzyme, 84 kDa) MMP-9.

Species predicted to react based on 100% sequence homology

Rat

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Lys115 of human MMP-9. Antibodies are purified by protein A and peptide affinity chromatography.

Background

The matrix metalloproteinases (MMPs) are a family of proteases that target many extracellular proteins including other proteases, growth factors, cell surface receptors, and adhesion molecules (1). Among the family members, MMP-2, MMP-3, MMP-7, and MMP-9 have been characterized as important factors for normal tissue remodeling during embryonic development, wound healing, tumor invasion, angiogenesis, carcinogenesis, and apoptosis (2-4). Research studies have shown that MMP activity correlates with cancer development (2). One mechanism of MMP regulation is transcriptional (5). Once synthesized, MMP exists as a latent proenzyme. Maximum MMP activity requires proteolytic cleavage to generate active MMPs by releasing the inhibitory propeptide domain from the full-length protein (5).

Background References

- McCawley, L.J. and Matrisian, L.M. (2001) *Curr Opin Cell Biol* 13, 534-40.
- Coussens, L.M. et al. (2002) *Science* 295, 2387-92.
- Sternlicht, M.D. et al. (1999) *Cell* 98, 137-46.
- Vu, T.H. et al. (1998) *Cell* 93, 411-22.
- Nagase, H. et al. (1990) *Biochemistry* 29, 5783-9.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human

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