

MMP9 Polyclonal Antibody

Catalog NumberPA5-13199

Product data sheet

Details		Species Reactivity	
Size	400 µL	Species reactivity	Human, Mouse
Host/Isotope	Rabbit / IgG	Published species	Rat, Human, Mouse, Not Applicable
Class	Polyclonal	Tested Applications	
Type	Antibody	Immunohistochemistry (Paraffin) (IHC (P))	1:50-1:100
Immunogen	KLH conjugated synthetic peptide between 644-673 amino acids from the C-terminal region of human MMP9	Western Blot (WB)	1:2,000
Conjugate	Unconjugated	Published Applications	
Form	Liquid	Western Blot (WB)	See 3 publications below
Concentration	1.5 mg/mL	Immunohistochemistry (IHC)	See 2 publications below
Purification	Ammonium sulfate precipitation, Size-exclusion - Dialysis	* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.	
Storage buffer	PBS		
Contains	0.09% sodium azide		
Storage Conditions	-20° C, Avoid Freeze/Thaw Cycles		

Background/Target Information

MMP9 (matrix metalloproteinase 9, GELB, CLG4B) is a matrix metalloproteinase, a family of zinc and calcium-dependent endopeptidases that degrade extracellular matrix proteins. MMP9 is secreted as a 92kDa zymogen and cleavage of pro-MMP9 results in the active enzyme with a molecular weight of 82kDa. MMP9 has a gelatin-binding domain consisting of three fibronectin type II units, a catalytic domain containing the zinc-binding site, a proline-rich type V collagen-homologous domain and a hemopexin-like domain. MMP9 is produced by monocytes, macrophages, neutrophils, keratinocytes, fibroblasts, osteoclasts and endothelial cells, and is involved in inflammatory responses, tissue remodeling, wound healing, tumor growth and metastasis. MMP9 is supplied by bone marrow-derived cells and contributes to skin carcinogenesis. Further, MMP9 degrades type IV and V collagens. Studies in rhesus monkeys suggest that the enzyme is involved in IL-8-induced mobilization of hematopoietic progenitor cells from bone marrow, and murine studies suggest a role in tumor-associated tissue remodeling. Studies have shown that elevated MMP9 is associated with progression of idiopathic atrial fibrillation and aortic aneurysm.

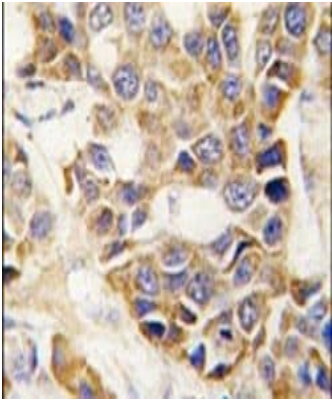
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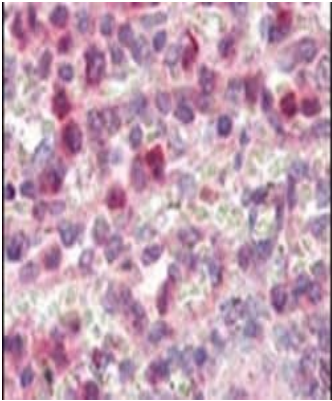
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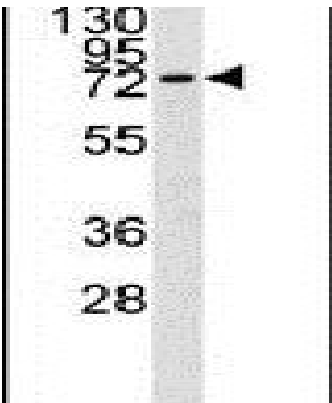
Product Images For MMP9 Polyclonal Antibody



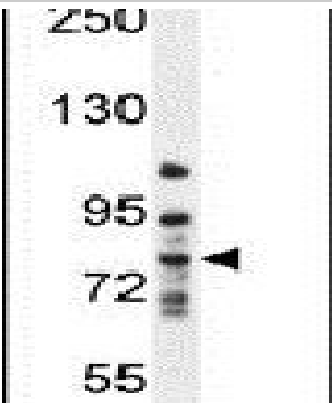
MMP9 Antibody (PA5-13199) in IHC (P)
Immunohistochemical analysis of formalin-fixed, paraffin-embedded human breast carcinoma tissue using a MMP9 polyclonal antibody (Product # PA5-13199), followed by HRP-conjugated secondary antibody and DAB staining.



MMP9 Antibody (PA5-13199) in IHC (P)
Immunohistochemical analysis of formalin-fixed, paraffin-embedded human spleen tissue using a MMP9 polyclonal antibody (Product # PA5-13199), followed by HRP-conjugated secondary antibody and AEC staining.



MMP9 Antibody (PA5-13199) in WB
Western blot analysis using a MMP9 polyclonal antibody (Product # PA5-13199) in mouse spleen lysates (35 µg per lane).

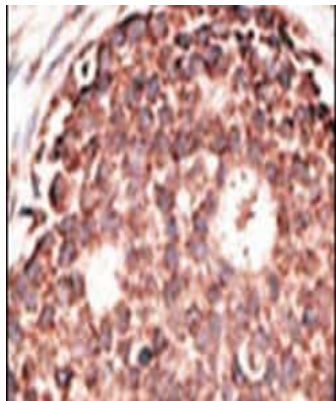


MMP9 Antibody (PA5-13199) in WB
Western blot analysis using a MMP9 polyclonal antibody (Product # PA5-13199) in 293 cell lysates (35 µg per lane).

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MMP9 Antibody (PA5-13199) in IHC (P)

Immunohistochemical analysis of formalin-fixed, paraffin-embedded human cancer tissue using a MMP9 polyclonal antibody (Product # PA5-13199), followed by HRP-conjugated secondary antibody and DAB staining.

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PubMed References For MMP9 Polyclonal Antibody

3 Western Blot References

Species / Dilution	Summary
Human / 1:2000	<p>PA5-13199 was used in Western Blotting to demonstrate that high circ_0074032 level in PCa is associated with worse PCa-related prognosis. Circ_0074032 induced cell apoptosis, curbed cell proliferation, migration and invasion in PCa cells and was identified as miR-198 decoy. Circ_0074032 regulates HOXA1 expression and promotes PCa progression via elevating HOXA1 expression through acting as a miR-198 sponge.</p> <p>Andrologia (2022; 54:) "Hsa_circ_0074032 promotes prostate cancer progression through elevating homeobox A1 expression by serving as a microRNA-198 decoy." Author(s):Feng C,Wang Q,Deng L,Peng N,Yang M,Wang X PubMed Article URL:http://dx.doi.org/10.1111/and.14312</p>
Human / 1:1000	<p>PA5-13199 was used in Immunohistochemistry to study the effects of meniscal tears in inflamed joints in terms of cytokine release.</p> <p>Folia morphologica (2020; 78: 535) "Expression of matrix metalloproteinase-9 and tumour necrosis factor-alpha in the synovial cells of patients with meniscus tears." Author(s):Atiç R,Deveci E PubMed Article URL:http://dx.doi.org/10.5603/FM.a2018.0096</p>
Mouse / 1:1000	<p>PA513199 was used in western blot to study the effect of intranasal curcumin on airway remodeling and fibrosis in murine model of chronic asthma</p> <p>Inflammation (2017; 40: 248) "Intranasal Curcumin Inhibits Pulmonary Fibrosis by Modulating Matrix Metalloproteinase-9 (MMP-9) in Ovalbumin-Induced Chronic Asthma." Author(s):Chauhan PS,Dash D,Singh R PubMed Article URL:http://dx.doi.org/10.1007/s10753-016-0475-3</p>

2 Immunohistochemistry References

Species / Dilution	Summary
Human / 1:100	<p>PA5-13199 was used in Immunohistochemistry to study the effects of meniscal tears in inflamed joints in terms of cytokine release.</p> <p>Folia morphologica (2020; 78: 535) "Expression of matrix metalloproteinase-9 and tumour necrosis factor-alpha in the synovial cells of patients with meniscus tears." Author(s):Atiç R,Deveci E PubMed Article URL:http://dx.doi.org/10.5603/FM.a2018.0096</p>
Mouse / 1:100	<p>PA5-13199 was used in Immunohistochemistry-immunofluorescence to investigate articular cartilage (AC) homeostasis and signaling pathways involved in the superior cartilage regeneration of Murphy Roths large (MRL/MpJ) mice.</p> <p>FASEB journal : official publication of the Federation of American Societies for Experimental Biology (2019; 33: 8809) "Characterization of articular cartilage homeostasis and the mechanism of superior cartilage regeneration of MRL/MpJ mice." Author(s):Deng Z,Gao X,Sun X,Amra S,Lu A,Cui Y,Eltzschig HK,Lei G,Huard J PubMed Article URL:http://dx.doi.org/10.1096/fj.201802132RR</p>

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