

MMP1 Polyclonal Antibody

Catalog NumberPA5-16498

Product data sheet

Details		Species Reactivity	
Size	500 µL	Species reactivity	Human
Host/Isotope	Rabbit / IgG	Published species	Human, Chicken, Not Applicable
Class	Polyclonal	Tested Applications	
Type	Antibody	Immunohistochemistry (Paraffin) (IHC (P))	Dilution *1:12.5-1:25
Immunogen	A synthetic peptide from the middle region of the human MMP-1	Western Blot (WB)	5-10 µg/mL
Conjugate	Unconjugated	Immunocytochemistry (ICC/IF)	2 µg/mL
Form	Liquid	Published Applications	
Concentration	1 mg/mL	Western Blot (WB)	See 1 publications below
Purification	Protein A	Immunohistochemistry (IHC)	See 5 publications below
Storage buffer	PBS, pH 7.4, with 0.2% BSA	* 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.	
Contains	0.09% sodium azide		
Storage Conditions	4° C		

Product specific information

PA5-16498 targets MMP-1 (Collagenase-1) in IHC (P) and WB applications and shows reactivity with Human samples. Antigen retrieval via boiling in 10 mM citrate buffer, pH 6.0 for 10 - 20 minutes followed by cooling to RT for 20 minutes is required for formalin fixed, paraffin embedded tissues. The PA5-16498 immunogen is a synthetic peptide from the middle region of the human MMP-1.

Background/Target Information

Proteins of the matrix metalloproteinase (MMP) family are involved in the breakdown of extracellular matrix in normal physiological processes, such as embryonic development, reproduction, and tissue remodeling, as well as in disease processes, such as arthritis and metastasis. Most MMP's are secreted as inactive proproteins which are activated when cleaved by extracellular proteinases. This gene encodes a secreted enzyme which breaks down the interstitial collagens, types I, II, and III. The gene is part of a cluster of MMP genes which localize to chromosome 11q22.3. Alternative splicing results in multiple transcript variants.

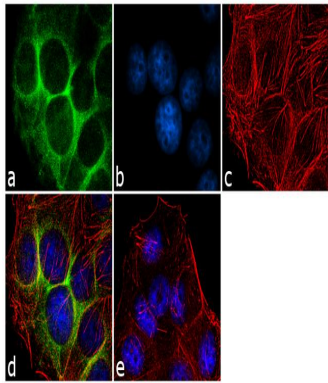
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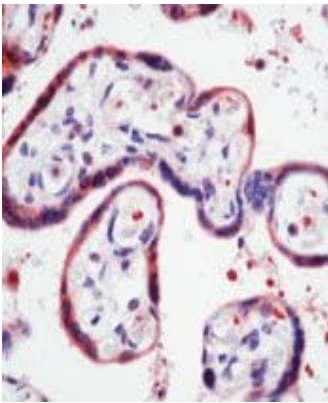
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Product Images For MMP1 Polyclonal Antibody



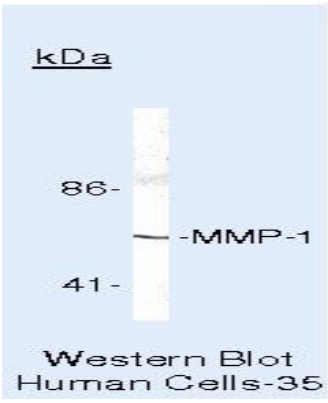
MMP1 Antibody (PA5-16498) in ICC/IF

Immunofluorescence analysis of MMP-1 (Collagenase-1) was performed using 70% confluent log phase MCF-7 cells. The cells were fixed with 4% paraformaldehyde for 10 minutes, permeabilized with 0.1% Triton™ X-100 for 10 minutes, and blocked with 1% BSA for 1 hour at room temperature. The cells were labeled with MMP-1 (Collagenase-1) Rabbit Polyclonal Antibody (Product # 36-6300) at 2 µg/mL in 0.1% BSA and incubated for 3 hours at room temperature and then labeled with Goat anti-Rabbit IgG (Heavy Chain) Superclonal™ Secondary Antibody, Alexa Fluor® 488 conjugate (Product # A27034) at a dilution of 1:2000 for 45 minutes at room temperature (Panel a: green). Nuclei (Panel b: blue) were stained with SlowFade® Gold Antifade Mountant with DAPI (Product # S36938). F-actin (Panel c: red) was stained with Alexa Fluor® 555 Rhodamine Phalloidin (Product # R415, 1:300). Panel d represents the merged image showing cytoplasmic localization. Panel e shows a no primary antibody control. The images were captured at 60X magnification.



MMP1 Antibody (PA5-16498) in IHC (P)

Formalin-fixed, paraffin-embedded human placenta stained with MMP-1 antibody using peroxidase-conjugate and AEC chromogen. Note cytoplasmic staining of trophoblasts.



MMP1 Antibody (PA5-16498) in WB

Western blot of MMP-1 (Collagenase-1) using MMP-1 (Collagenase-1) Polyclonal Antibody (Product # PA5-16498) on HFL-1+TPA med Cells.

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PubMed References For MMP1 Polyclonal Antibody

1 Western Blot References

Species / Dilution	Summary
	PA5-16498 was used in western blot to determine promotion of cell migration and lymph node metastasis of oral squamous cell carcinoma cells by requirement of integrin beta1 and insulin-like growth factor-independent insulin-like growth factor binding prot
Not Applicable / Not Cited	Oncotarget (2015; 6: 41837) "Insulin-like growth factor-independent insulin-like growth factor binding protein 3 promotes cell migration and lymph node metastasis of oral squamous cell carcinoma cells by requirement of integrin 1." Author(s):Yen YC,Hsiao JR,Jiang SS,Chang JS,Wang SH,Shen YY,Chen CH,Chang IS,Chang JY,Chen YW PubMed Article URL: http://dx.doi.org/10.18632/oncotarget.5995

5 Immunohistochemistry References

Species / Dilution	Summary
	PA5-16498 was used in immunohistochemistry to study the expression and clinical relevance of MMPs and TIMPs in patients with resectable colorectal carcinoma
Human / 1:200	Digestive diseases and sciences (2012; 57: 2063) "Effect of the expression of matrix metalloproteases and their tissue inhibitors on survival of patients with resectable colorectal cancer." Author(s):González L,Eiró N,González LO,Andicoechea A,Barbón E,García-Muñiz JL,Vizoso FJ PubMed Article URL: http://dx.doi.org/10.1007/s10620-012-2154-z
Chicken / Not Cited	PA5-16498 was used in immunohistochemistry to study the effects of vitamin A and methylprednisolone on the expression of MMP-1, -2 and -9 in a chick model of amyloid arthropathy Biotechnic & histochemistry : official publication of the Biological Stain Commission (2013; 88: 336) "Matrix metalloproteinase, vitamin A and methylprednisolone effects on experimentally induced amyloid arthropathy." Author(s):Sevimli A,Yac A,Bülbül A PubMed Article URL: http://dx.doi.org/10.3109/10520295.2013.788212
Human / 1:100	PA5-16498 was used in immunohistochemistry to study the expresion of tumor antigens in order to identify novel diagnostic markers of parotid gland tumors European archives of oto-rhino-laryngology : official journal of the European Federation of Oto-Rhino-Laryngological Societies (EUFOS) : affiliated with the German Society for Oto-Rhino-Laryngology - Head and Neck Surgery (2014; 271: 1999) "New diagnostic markers in salivary gland tumors." Author(s):Schneider S,Kloimstein P,Pammer J,Brannath W,Grasl MCh,Erovic BM PubMed Article URL: http://dx.doi.org/10.1007/s00405-013-2740-5
Human / Not Cited	PA5-16498 was used in immunohistochemistry to identify invasion-associated genes in extranodal natural killer/T-cell lymphoma Leukemia & lymphoma (2013; 54: 90) "Invasion-associated genes identified by gene expression profiling in extranodal natural killer/T-cell lymphoma, nasal type." Author(s):Yu JB,Zhang YC,Yang QP,Wang XL,Tang Y,Zhao S,Mo XM,Liu WP PubMed Article URL: http://dx.doi.org/10.3109/10428194.2012.701293
Human / 1:200	PA5-16498 was used in immunohistochemistry to study the relationship between tumor microvascular density and the expression of MMPs and TIMPs in breast carcinoma and the significance for distant metastasis International journal of clinical oncology (2013; 18: 629) "Low microvascular density at the tumor center is related to the expression of metalloproteases and their inhibitors and with the occurrence of distant metastasis in breast carcinomas." Author(s):Fernández-Guinea O,Álvarez-Cofiño A,Eiró N,González LO,del Casar JM,Fernandez-Garcia B,Lamelas ML,Andicoechea A,Vizoso FJ PubMed Article URL: http://dx.doi.org/10.1007/s10147-012-0428-2

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