

MMP13 Recombinant Rabbit Monoclonal Antibody (3H13L17)

Product Details	
Size	100 µg
Species Reactivity	Human
Published Species	Mouse
Host/Isotype	Rabbit / IgG
Expression system	Expi293
Class	Recombinant Monoclonal
Type	Antibody
Clone	3H13L17
Conjugate	Unconjugated
Immunogen	Recombinant protein corresponding to amino acids 221-471 of human MMP-13
Form	Liquid
Concentration	0.5 mg/mL
Purification	Protein A
Storage buffer	PBS
Contains	0.09% sodium azide
Storage conditions	Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.
RRID	AB_2532459

Applications	Tested Dilution	Publications
Western Blot (WB)	1-3 µg/mL	3 Publications
Immunohistochemistry (IHC)	-	1 Publication
Immunohistochemistry (Paraffin) (IHC (P))	1:20-1:200	-
Immunocytochemistry (ICC/IF)	1 µg/mL	1 Publication

Product Specific Information

This antibody is predicted to react with mouse, rat, non-human primate and rabbit based on sequence homology.

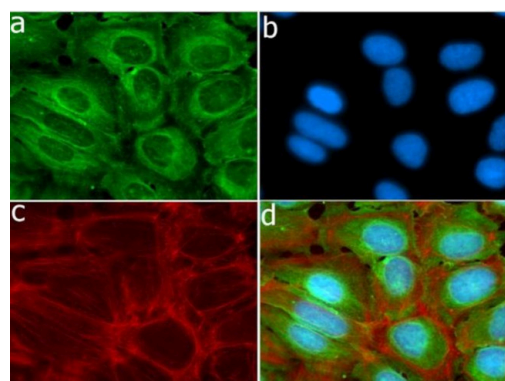
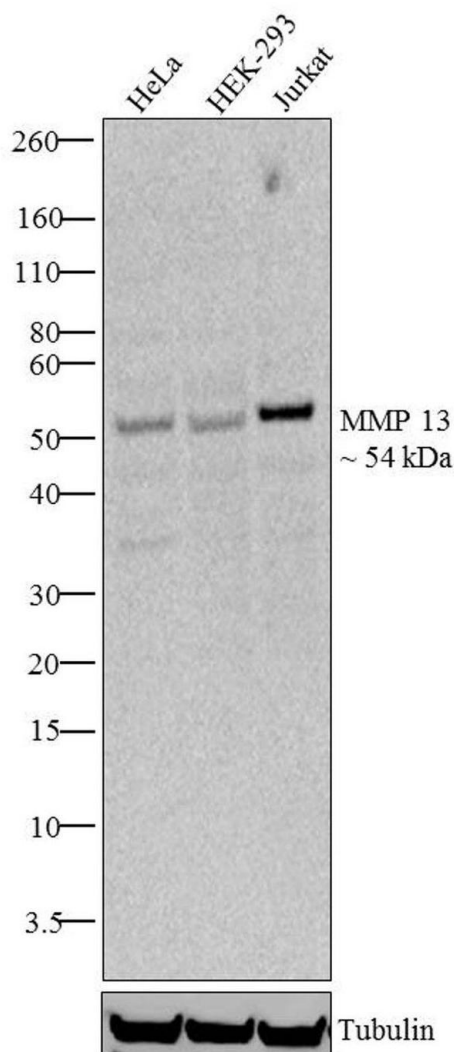
Intact IgG appears on a non-reducing gel as ~150 kDa band and upon reduction generating a ~25 kDa light chain band and a ~50 kDa heavy chain.

Recombinant rabbit monoclonal antibodies are produced using in vitro expression systems. The expression systems are developed by cloning in the specific antibody DNA sequences from immunoreactive rabbits. Then, individual clones are screened to select the best candidates for production. The advantages of using recombinant rabbit monoclonal antibodies include: better specificity and sensitivity, lot-to-lot consistency, animal origin-free formulations, and broader immunoreactivity to diverse targets due to larger rabbit immune repertoire.

Product Images For MMP13 Recombinant Rabbit Monoclonal Antibody (3H13L17)

MMP13 Antibody (701287) in WB

Western blot analysis of MMP13 was performed by loading 20 µg of HeLa (lane1), HEK-293 (lane2) and Jurkat (lane3) cell lysates using Novex®NuPAGE®4-12 % Bis-Tris gel (Product # NP0321BOX), XCell SureLock Electrophoresis System (Product # EI0002), Novex® Sharp Pre-Stained Protein Standard (Product # LC5800), and iBlot® Dry Blotting System (Product # IB21001). Proteins were transferred to a nitrocellulose membrane and blocked with 5 % skim milk for 1 hour at room temperature. MMP13 was detected at ~54 kDa using MMP13 Recombinant Rabbit Monoclonal Antibody (Product # 701287) at 1 µg-3 µg/mL in 2.5 % skim milk at 4°C overnight on a rocking platform. Goat anti-Rabbit IgG-HRP Secondary Antibody (Product # G-21234) at 1:5000 dilution was used and chemiluminescent detection was performed using Pierce™ ECL Western blotting Substrate (Product # 32106).

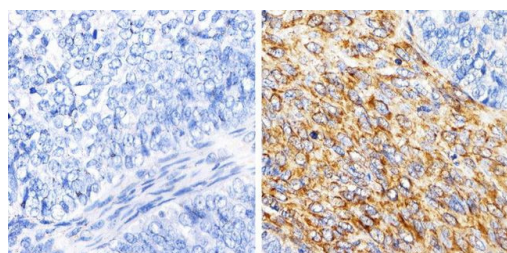


MMP13 Antibody (701287) in ICC/IF

Immunofluorescent analysis of MMP-13 in HeLa cells using a MMP-13 recombinant rabbit monoclonal antibody (Product # 701287) followed by detection using an Alexa Fluor 488-conjugated goat anti-rabbit secondary antibody (green) (Image A). Nuclei were stained using DAPI (Image B) and actin stained with Alexa Fluor 594 phalloidin (red) (image C). Image D is a composite image showing nuclear localization of MMP-13.

MMP13 Antibody (701287) in IHC (P)

Immunohistochemistry analysis of MMP-13/Collagenase-4 showing staining in the cytoplasm of paraffin-embedded human ovarian carcinoma (right) compared to a negative control without primary antibody (left). To expose target proteins, antigen retrieval was performed using 10 mM sodium citrate (pH 6.0), microwaved for 8-15 min. Following antigen retrieval, tissues were blocked in 3% H₂O₂-methanol for 15 min at room temperature, washed with ddH₂O and PBS, and then probed with MMP-13/Collagenase-4 monoclonal antibody (Product # 701287) diluted in 3% BSA-PBS at a dilution of 1:100 overnight at 4°C in a humidified chamber. Tissues were washed extensively in PBST and detection was performed using a HRP-conjugated secondary antibody followed by colorimetric detection using a DAB kit. Tissues were counterstained with hematoxylin and dehydrated with ethanol and xylene to prep for mounting.



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5 References

Western Blot (3)

<p>Biomolecules</p> <p>GY4137 Regulates Extracellular Matrix Turnover in the Diabetic Kidney by Modulating Retinoid X Receptor Signaling.</p> <p>"701287 was used in Western Blot to suggest that RXR signaling plays a significant role in ECM turnover, and GY4137 modulates PPAR/RAR-mediated RXR signaling to ameliorate PAI-1-dependent adverse ECM turnover in DN."</p> <p>Authors: Juin SK,Pushpakumar S,Sen U</p>	<p>Year 2021</p> <p>Species Mouse</p>
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<p>Frontiers in pharmacology</p> <p>Xanthohumol Attenuated Inflammation and ECM Degradation by Mediating HO-1/C/EBP Pathway in Osteoarthritis Chondrocytes.</p> <p>"Published figure using MMP13 recombinant monoclonal antibody (Product # 701287) in Immunocytochemistry"</p> <p>Authors: Zhang M,Zhang R,Zheng T,Chen Z, Ji G,Peng F,Wang W</p>	<p>Year 2021</p>
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Immunohistochemistry (1)

<p>Frontiers in pharmacology</p> <p>Xanthohumol Attenuated Inflammation and ECM Degradation by Mediating HO-1/C/EBP Pathway in Osteoarthritis Chondrocytes.</p> <p>"Published figure using MMP13 recombinant monoclonal antibody (Product # 701287) in Immunocytochemistry"</p> <p>Authors: Zhang M,Zhang R,Zheng T,Chen Z, Ji G,Peng F,Wang W</p>	<p>Year 2021</p>
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Immunocytochemistry (1)

<p>Frontiers in pharmacology</p> <p>Xanthohumol Attenuated Inflammation and ECM Degradation by Mediating HO-1/C/EBP Pathway in Osteoarthritis Chondrocytes.</p> <p>"Published figure using MMP13 recombinant monoclonal antibody (Product # 701287) in Immunocytochemistry"</p> <p>Authors: Zhang M,Zhang R,Zheng T,Chen Z, Ji G,Peng F,Wang W</p>	<p>Year 2021</p>
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