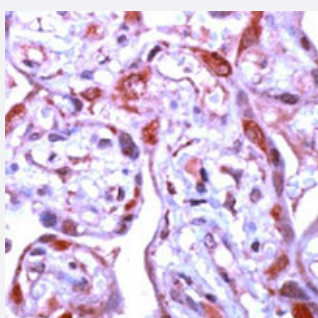


MMP1 polyclonal antibody

Catalog # PAB12708

Size 100 ug

Applications



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Immunohistochemical staining of human placenta stained with MMP1 polyclonal antibody (Cat # PAB12708) at 1 : 100 for 10 min at RT. Staining of formalin-fixed tissue requires boiling tissue sections in 10 mM Citrate Buffer, pH 6.0 for 10 min followed by cooling at RT for 20 min.

Specification

Product Description	Rabbit polyclonal antibody raised against synthetic peptide of MMP1.
Immunogen	A synthetic peptide corresponding to C-terminus of human MMP1.
Host	Rabbit
Theoretical MW (kDa)	72
Reactivity	Human, Mouse, Rat
Specificity	This antibody recognizes ~72 KDa of MMP1 (Interstitial collagenase/ gelatinase A).
Form	Liquid
Purification	Affinity chromatography
Isotype	IgG
Recommend Usage	Western Blot (0.1-1 ug/mL) ELISA (0.01-0.1 ug/mL) Immunoprecipitation (2-5 ug/mL) Immunohistochemistry (2-5 ug/mL) The optimal working dilution should be determined by the end user.

Storage Buffer

In PBS, pH 7.2 (BSA, 10% Proclin300)

Storage Instruction

Store at 4°C. For long term storage store at -20°C or -80°C.

Aliquot to avoid repeated freezing and thawing. Upon initial thawing, apportion into working aliquots and store at -80°C for up to six months.

Applications

- Western Blot

- Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Immunohistochemical staining of human placenta stained with MMP1 polyclonal antibody (Cat # PAB12708) at 1 : 100 for 10 min at RT. Staining of formalin-fixed tissue requires boiling tissue sections in 10 mM Citrate Buffer, pH 6.0 for 10 min followed by cooling at RT for 20 min.

- Immunoprecipitation

- Enzyme-linked Immunoabsorbent Assay

Gene Info — MMP1

Entrez GeneID[4312](#)**Gene Name**

MMP1

Gene Alias

CLG, CLGN

Gene Description

matrix metalloproteinase 1 (interstitial collagenase)

Omim ID[120353 606963](#)**Gene Ontology**[Hyperlink](#)**Gene Summary**

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.[provided by RefSeq]

Other Designations

fibroblast collagenase|interstitial collagenase|matrix metalloproteinase 1|matrix metalloproteinase 1|matrix metalloproteinase 1 (interstitial collagenase)

Publication Reference

- [Disruption of cholesterol homeostasis triggers periodontal inflammation and alveolar bone loss.](#)

Thanh-Tam Tran, Gyuseok Lee, Yun Hyun Huh, Ki-Ho Chung, Sun Young Lee, Ka Hyon Park, Seung Hee Kwon, Min-Suk Kook, Jang-Soo Chun, Jeong-Tae Koh, Je-Hwang Ryu.

Experimental & Molecular Medicine 2023 Dec; 55(12):2553.

Application: WB, Human, Gingival fibroblasts

- [Matrix metalloproteinase expression is altered in the small and large intestine following fractionated radiation in vivo.](#)

Stansborough RL, Al-Dasooqi N, Bateman EH, Bowen JM, Keefe DMK, Logan RM, Yeoh ASJ, Yeoh EEK, Stringer AM, Gibson RJ.

Supportive Care in Cancer : Official Journal of the Multinational Association of Supportive Care in 2018 May; [Epub].

Application: IHC, Rat, Jejunal, Colonic tissues

- [The Expression of Matrix Metalloproteinases in Receptor Activator of Nuclear Factor Kappa-B Ligand \(RANKL\)-expressing Cancer of Apocrine Origin.](#)

Kambayashi Y, Fujimura T, Furudate S, Lyu C, Hidaka T, Kakizaki A, Sato Y, Tanita K, Aiba S.

Anticancer Research 2018 Jan; 38(1):113.

Application: IHC-P, Human, Human primary cutaneous apocrine carcinoma

- [Wnt5a induces catabolic signaling and matrix metalloproteinase production in human articular chondrocytes.](#)

Huang G, Chubinskaya S, Liao W, Loeser RF.

Osteoarthritis and Cartilage 2017 Jun; 25(9):1505.

Application: WB, Human, Human chondrocytes

- [Osteoarthritic changes in vervet monkey knees correlate with meniscus degradation and increased matrix metalloproteinase and cytokine secretion.](#)

Stone AV, Vanderman KS, Willey JS, Longc DL, Register TC, Shively CA, Stehle Jr. JR, Loeser RF, Ferguson CM.

Osteoarthritis and Cartilage 2015 Oct; 23(10):1780.

Application: WB, Monkey, Monkey meniscal explant cultures

- [Pro-inflammatory stimulation of meniscus cells increases production of matrix metalloproteinases and additional catabolic factors involved in osteoarthritis pathogenesis.](#)

Stone AV, Loeser RF, Vanderman KS, Long DL, Clark SC, Ferguson CM.

Osteoarthritis and Cartilage 2014 Feb; 22(2):264.

Application: WB, Human, Cartilage, Meniscus cells

- [BTG2 inhibits the proliferation, invasion, and apoptosis of MDA-MB-231 triple-negative breast cancer cells.](#)

Zhang YJ, Wei L, Liu M, Li J, Zheng YQ, Gao Y, Li XR.

Tumor Biology 2013 Jun; 34(3):1605.

Application: WB, Human, MDA-MB-231 cells

- [Effect of ARHI on lung cancer cell proliferation, apoptosis and invasion in vitro.](#)

Wu X, Liang L, Dong L, Yu Z, Fu X.

Molecular Biology Reports 2012 Dec; 40(3):2671.

Application: WB-Ce, Human, SK-MES-1 cells

- [Urine proteomic analysis differentiates cholangiocarcinoma from primary sclerosing cholangitis and other benign biliary disorders.](#)

Metzger J, Negm AA, Plentz RR, Weismuller TJ, Wedemeyer J, Karlsen TH, Dakna M, Mullen W, Mischak H, Manns MP, Lankisch TO.

Gut 2012 May; 62(1):122.

Application: IHC-P, Human, Liver tissues from patients with cholangiocarcinoma (CC) and primary sclerosing cholangitis (PSC)

Pathway

- [Bladder cancer](#)
- [Pathways in cancer](#)
- [PPAR signaling pathway](#)

Disease

- [Adenocarcinoma](#)
- [Adenomatous Polyps](#)
- [Aggressive Periodontitis](#)
- [Airway Obstruction](#)
- [alpha 1-Antitrypsin Deficiency](#)
- [Alpha-1-antitrypsin deficiency](#)
- [Alveolar Bone Loss](#)

- [Alzheimer disease](#)
- [Amyotrophic lateral sclerosis](#)
- [Anoxia](#)
- [Aortic Aneurysm](#)
- [Arthritis](#)
- [Asthma](#)
- [Astrocytoma](#)
- [Atherosclerosis](#)
- [Brain Neoplasms](#)
- [Breast cancer](#)
- [Breast Neoplasms](#)
- [Bronchiectasis](#)
- [Bronchitis](#)
- [Carcinoma](#)
- [Cardiomyopathy](#)
- [Cardiovascular Diseases](#)
- [Carotid Artery](#)
- [Carotid Artery Diseases](#)
- [Carotid Stenosis](#)
- [Celiac Disease](#)
- [Cervical Intraepithelial Neoplasia](#)
- [Cholangitis](#)
- [Chorioamnionitis](#)
- [Chronic Disease](#)
- [Chronic Periodontitis](#)
- [Cleft Lip](#)
- [Cleft Palate](#)

- [Colitis](#)
- [Colorectal Neoplasms](#)
- [Connective Tissue Diseases](#)
- [Constriction](#)
- [Coronary Artery Disease](#)
- [Coronary Disease](#)
- [Crohn Disease](#)
- [Cystic fibrosis](#)
- [Dementia](#)
- [Diabetes Complications](#)
- [Diabetes Mellitus](#)
- [Diabetic Angiopathies](#)
- [Disease Progression](#)
- [Disease Susceptibility](#)
- [Ductus Arteriosus](#)
- [Edema](#)
- [Emphysema](#)
- [Endometrial Neoplasms](#)
- [Endometriosis](#)
- [Epidermolysis Bullosa](#)
- [Esophageal Neoplasms](#)
- [Exfoliation Syndrome](#)
- [Eye Diseases](#)
- [Fetal Diseases](#)
- [Fetal Membranes](#)
- [Fibrosis](#)

- [Genetic Predisposition to Disease](#)
- [Gingival Overgrowth](#)
- [Glaucoma](#)
- [Glioblastoma](#)
- [Graft Occlusion](#)
- [Head and Neck Neoplasms](#)
- [Hearing Loss](#)
- [Helicobacter Infections](#)
- [Hepatitis C](#)
- [Hypertension](#)
- [Hypertrophy](#)
- [Idiopathic Pulmonary Fibrosis](#)
- [Infant](#)
- [Infection](#)
- [Inflammation](#)
- [Kidney Diseases](#)
- [Kidney Failure](#)
- [Kidney Neoplasms](#)
- [Leiomyoma](#)
- [Lichen Planus](#)
- [Liver Cirrhosis](#)
- [Liver Neoplasms](#)
- [Lung carcinoma](#)
- [Lung Neoplasms](#)
- [Lymphatic Metastasis](#)
- [Lymphoma](#)

- [Metabolic Syndrome X](#)
- [Mitral Valve Insufficiency](#)
- [Mitral Valve Prolapse](#)
- [Mouth Neoplasms](#)
- [Multiple Sclerosis](#)
- [Musculoskeletal Diseases](#)
- [Myocardial Infarction](#)
- [Myopia](#)
- [Nasopharyngeal Neoplasms](#)
- [Neoplasm Invasiveness](#)
- [Neoplasm Metastasis](#)
- [Neoplasm Recurrence](#)
- [Neoplasms](#)
- [Obesity](#)
- [Obstetric Labor](#)
- [Oral Submucous Fibrosis](#)
- [Osteoarthritis](#)
- [Osteolysis](#)
- [Osteomyelitis](#)
- [Osteoporosis](#)
- [Ovarian cancer](#)
- [Ovarian Neoplasms](#)
- [Papillomavirus Infections](#)
- [Parkinson disease](#)
- [Periodontal Attachment Loss](#)
- [Periodontal Pocket](#)

- [Periodontitis](#)
- [Peripheral Vascular Diseases](#)
- [Pneumonia](#)
- [Polycystic Ovary Syndrome](#)
- [Pre-Eclampsia](#)
- [Pregnancy Complications](#)
- [Premature Birth](#)
- [Prostate cancer](#)
- [Prostatic Neoplasms](#)
- [Prosthesis Failure](#)
- [Prosthesis-Related Infections](#)
- [Pruritus](#)
- [Pulmonary Disease](#)
- [Pulmonary Emphysema](#)
- [Renal Insufficiency](#)
- [Rheumatoid Nodule](#)
- [Rhinitis](#)
- [Sarcoidosis](#)
- [Scleroderma](#)
- [Skin Diseases](#)
- [Spinal Diseases](#)
- [Stomach Neoplasms](#)
- [Stomach Ulcer](#)
- [Subarachnoid Hemorrhage](#)
- [Thrombosis](#)
- [Tongue Neoplasms](#)

- [Tooth Loss](#)
- [Tuberculosis](#)
- [Urinary Bladder Neoplasms](#)
- [Urinary Incontinence](#)
- [Uterine Cervical Neoplasms](#)
- [Uterine Neoplasms](#)
- [Varicose Veins](#)
- [Werner syndrome](#)