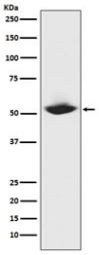
Collagenase 1 Antibody [clone CDG-13] (RQ5025)

Catalog No.	Formulation	Size
RQ5025	Antibody in PBS with 0.02% sodium azide, 50% glycerol and 0.4-0.5mg/ml BSA	100 ul

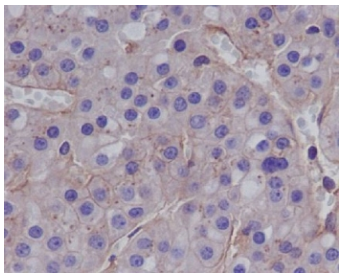
Recombinant RABBIT MONOCLONAL

Bulk quote request

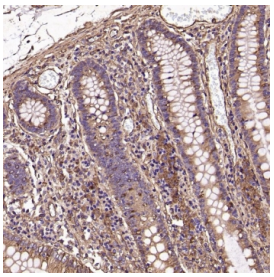
Availability	1-2 weeks
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	CDG-13
Purity	Affinity purified
UniProt	P03956
Applications	Western blot: 1:500-1:2000 Immunohistochemistry (FFPE): 1:50-1:200 Immunofluorescence: 1:50-1:200
Limitations	This Collagenase 1 Antibody is available for research use only.



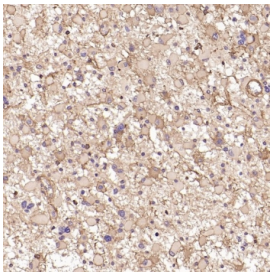
Collagenase 1 Antibody Recombinant Protein WB. Western blot analysis of purified human recombinant Collagenase 1 protein using Collagenase 1 Antibody. A single specific band is detected at approximately 54 kDa, consistent with the predicted molecular weight of the MMP1 proenzyme (pro-MMP1). Recognition of recombinant protein confirms target specificity under Western blot conditions. These results support the use of Collagenase 1 Antibody for studying MMP1 expression, extracellular matrix remodeling and collagen degradation pathways.



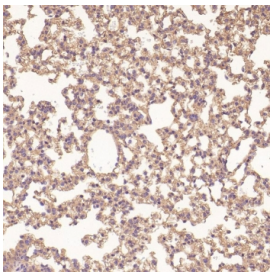
Collagenase 1 Antibody Human Hepatocellular Carcinoma IHC. Immunohistochemistry analysis of FFPE human hepatocellular carcinoma tissue using Collagenase 1 Antibody. Heat induced antigen retrieval was performed by boiling tissue sections in pH 6 citrate buffer for 10â€“20 minutes prior to staining. Moderate cytoplasmic staining is observed in malignant hepatocytes, consistent with MMP1 expression associated with extracellular matrix remodeling and tumor progression. These results support the use of Collagenase 1 Antibody for studying MMP1 expression, collagen degradation and cancer-associated extracellular matrix remodeling.



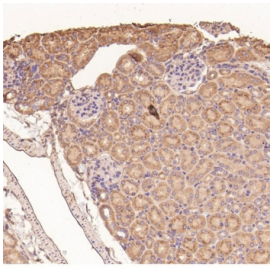
Collagenase 1 Antibody Human Colon IHC. Immunohistochemistry analysis of FFPE human colon tissue using Collagenase 1 Antibody. Heat induced antigen retrieval was performed by boiling tissue sections in pH 6 citrate buffer for 10â€“20 minutes prior to staining. Positive staining is observed predominantly in stromal and inflammatory cell populations surrounding the colonic crypts, consistent with MMP1 expression associated with extracellular matrix remodeling and tissue homeostasis. These results support the use of Collagenase 1 Antibody for studying MMP1 expression, collagen degradation and extracellular matrix remodeling in normal gastrointestinal tissue.



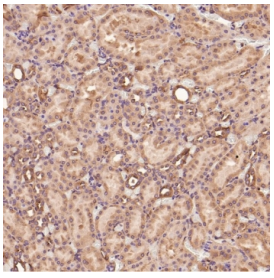
Collagenase 1 Antibody Human Astrocytoma IHC. Immunohistochemistry analysis of FFPE human astrocytoma tissue using Collagenase 1 Antibody. Heat induced antigen retrieval was performed by boiling tissue sections in pH 6 citrate buffer for 10â€“20 minutes prior to staining. Diffuse cytoplasmic staining is observed in tumor cells, consistent with MMP1 expression associated with extracellular matrix remodeling and invasive tumor behavior. These results support the use of Collagenase 1 Antibody for studying MMP1 expression, collagen degradation and cancer-associated tissue remodeling.



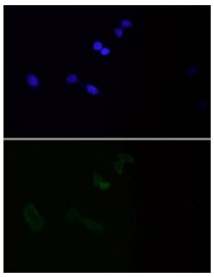
Collagenase 1 Antibody Mouse Lung IHC. Immunohistochemistry analysis of FFPE mouse lung tissue using Collagenase 1 Antibody. Heat induced antigen retrieval was performed by boiling tissue sections in pH 6 citrate buffer for 10â€“20 minutes prior to staining. Positive staining is observed in pulmonary cells throughout the lung parenchyma, consistent with MMP1 expression associated with extracellular matrix remodeling and normal tissue homeostasis. These results support the use of Collagenase 1 Antibody for studying MMP1 expression, collagen degradation and extracellular matrix remodeling in pulmonary tissues.



Collagenase 1 Antibody Mouse Kidney IHC. Immunohistochemistry analysis of FFPE mouse kidney tissue using Collagenase 1 Antibody. Heat induced antigen retrieval was performed by boiling tissue sections in pH 6 citrate buffer for 10â€“20 minutes prior to staining. Predominantly cytoplasmic staining is observed in renal tubular epithelial cells, consistent with MMP1 expression associated with extracellular matrix remodeling and tissue homeostasis. These results support the use of Collagenase 1 Antibody for studying MMP1 expression, collagen degradation and extracellular matrix remodeling in renal tissues.



Collagenase 1 Antibody Rat Kidney IHC. Immunohistochemistry analysis of FFPE rat kidney tissue using Collagenase 1 Antibody. Heat induced antigen retrieval was performed by boiling tissue sections in pH 6 citrate buffer for 10â€“20 minutes prior to staining. Predominantly cytoplasmic staining is observed in renal tubular epithelial cells, consistent with MMP1 expression associated with extracellular matrix remodeling and normal tissue homeostasis. These results support the use of Collagenase 1 Antibody for studying MMP1 expression, collagen degradation and extracellular matrix remodeling in renal tissues.



Collagenase 1 Antibody HeLa Cell IF. Immunofluorescence analysis of FFPE human HeLa cells using Collagenase 1 Antibody. Heat induced antigen retrieval was performed by boiling sections in pH 6 citrate buffer for 20 minutes prior to staining. Collagenase 1 expression is shown in green with DAPI nuclear counterstain shown in blue. Predominantly cytoplasmic staining is observed, consistent with intracellular synthesis and processing of the MMP1 proenzyme before secretion. These results support the use of Collagenase 1 Antibody for studying MMP1 expression, collagen degradation and extracellular matrix remodeling.

Description

Collagenase 1 Antibody detects MMP1, a zinc-dependent extracellular protease responsible for initiating the degradation of fibrillar collagens within connective tissues. Commonly referred to as Collagenase 1, MMP1 cleaves collagen types I, II and III, making it an important enzyme in extracellular matrix remodeling, wound repair and normal tissue turnover. Tight regulation of Collagenase 1 activity is essential for maintaining tissue integrity while permitting controlled remodeling during development, healing and inflammatory responses.

Collagenase 1 is produced by a variety of cell types, including fibroblasts, epithelial cells, endothelial cells and inflammatory cells following stimulation by cytokines, growth factors and tissue injury. After secretion, the enzyme participates in remodeling the extracellular matrix by degrading structural collagen fibers, facilitating cell migration and regulating interactions between cells and their surrounding microenvironment. A Collagenase 1 Antibody is useful for investigating connective tissue biology, extracellular matrix regulation and mechanisms of tissue repair.

Abnormal expression of Collagenase 1 has been associated with numerous pathological conditions, including cancer, arthritis, pulmonary fibrosis and chronic inflammatory diseases. Increased MMP1 activity may promote tumor invasion and metastasis by disrupting extracellular matrix barriers surrounding malignant cells. Because of these important biological functions, Collagenase 1 / CLG remains a widely studied biomarker in oncology, inflammation and tissue remodeling research.

Collagenase 1 functions within a complex network of matrix metalloproteinases and their endogenous inhibitors, where coordinated regulation determines the balance between extracellular matrix degradation and preservation. Analysis of Collagenase 1 expression provides valuable insight into proteolytic signaling, stromal remodeling and disease-associated changes in connective tissue architecture. Collagenase 1 Antibody supports studies examining extracellular protease activity, matrix turnover and cellular interactions within remodeling tissues.

NSJ Bioreagents offers Collagenase 1 Antibody products for researchers studying extracellular matrix biology, connective tissue remodeling and cancer progression. These antibodies support applications including Western blot, immunohistochemistry, immunofluorescence and flow cytometry analysis of MMP1 expression and localization. Collagenase 1 Antibody provides a valuable tool for investigating collagen degradation, tumor invasion and extracellular matrix remodeling pathways.

Researchers studying matrix metalloproteinase biology and extracellular matrix remodeling may also be interested in our MMP1 Antibody / Interstitial Collagenase Antibody page, which highlights MMP1 function in tumor invasion, collagen degradation and cancer-associated extracellular matrix remodeling.

Application Notes

Optimal dilution of the Collagenase 1 Antibody should be determined by the researcher.

Immunogen

A synthetic peptide specific to human MMP1 was used as the immunogen for the MMP1 / Collagenase 1 antibody.

Storage

Store the MMP1 / Collagenase 1 antibody at -20oC.

Alternate Names

MMP1 antibody, Interstitial Collagenase antibody, Fibroblast Collagenase antibody, Matrix Metalloproteinase 1 antibody, MMP-1 antibody, CLG antibody

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