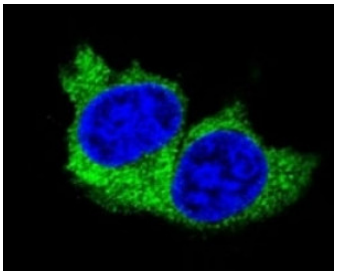
Fibroblast Collagenase Antibody (F41755)

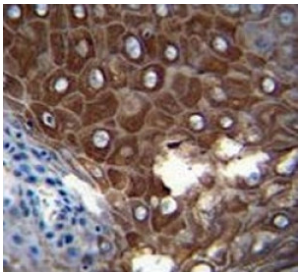
Catalog No.	Formulation	Size
F41755-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F41755-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

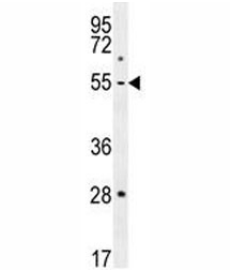
Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity
UniProt	P03956
Applications	Western blot: 1:1000 IHC (Paraffin): 1:50-1:100 Immunofluorescence: 1:10-1:50
Limitations	This Fibroblast Collagenase Antibody is available for research use only.



Fibroblast Collagenase Antibody MDA-MB231 Cell IF. Confocal immunofluorescence analysis of MDA-MB231 human breast cancer cells using Fibroblast Collagenase Antibody. Fibroblast Collagenase 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 Fibroblast Collagenase Antibody for studying collagen degradation, extracellular matrix remodeling and tumor cell invasion.



Fibroblast Collagenase Antibody Human Esophageal Carcinoma IHC. Immunohistochemistry analysis of FFPE human esophageal carcinoma tissue using Fibroblast Collagenase Antibody. Strong cytoplasmic and membranous staining is observed in malignant epithelial cells, consistent with MMP1 expression associated with extracellular matrix remodeling and tumor progression. These results support the use of Fibroblast Collagenase Antibody for studying collagen degradation, stromal remodeling and cancer-associated extracellular matrix regulation.



Fibroblast Collagenase Antibody MDA-MB231 Cell WB. Western blot analysis of MDA-MB231 human breast cancer cell lysate using Fibroblast Collagenase Antibody. A specific band is detected at approximately 54 kDa, consistent with the expected molecular weight of the MMP1 proenzyme (pro-MMP1). Detection in the highly invasive MDA-MB231 cell line supports the use of Fibroblast Collagenase Antibody for studying MMP1 expression, collagen degradation and cancer-associated extracellular matrix remodeling.

Description

Fibroblast Collagenase Antibody detects MMP1, a zinc-dependent extracellular protease historically known as fibroblast collagenase because it was first identified as a collagen-degrading enzyme produced by fibroblasts. MMP1 plays a central role in extracellular matrix remodeling by cleaving fibrillar collagens, particularly collagen types I, II and III. This controlled degradation is essential for normal connective tissue turnover, wound healing and tissue repair, while dysregulated MMP1 activity contributes to numerous pathological conditions. Fibroblast Collagenase Antibody is valuable for researchers investigating extracellular matrix biology, stromal remodeling and collagen metabolism.

Although originally characterized in fibroblasts, MMP1 is expressed by a broad range of cell types including epithelial cells, endothelial cells, macrophages and certain tumor cells in response to inflammatory cytokines, growth factors and tissue injury. Secreted as an inactive proenzyme, MMP1 undergoes proteolytic activation before degrading extracellular collagen fibers and facilitating cell migration through connective tissues. Analysis with a Fibroblast Collagenase Antibody provides insight into mechanisms regulating tissue architecture, extracellular matrix turnover and cellular interactions with the surrounding stromal environment.

Fibroblast collagenase has become an important research target in oncology because increased MMP1 expression is associated with tumor invasion, angiogenesis and metastatic progression. Elevated MMP1 activity has also been reported in arthritis, pulmonary fibrosis, chronic inflammatory disorders and cardiovascular remodeling, reflecting its broad importance in diseases involving abnormal connective tissue degradation. Studying MMP1 expression helps investigators better understand the balance between physiological tissue repair and pathological extracellular matrix destruction.

MMP1 functions within the matrix metalloproteinase family alongside closely related enzymes and their endogenous tissue inhibitors, which collectively regulate extracellular proteolysis. Measuring fibroblast collagenase expression provides valuable information about connective tissue homeostasis, stromal biology and protease-mediated remodeling pathways. Fibroblast Collagenase Antibody supports investigations of wound healing, fibrosis, inflammation and cancer-associated extracellular matrix remodeling.

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

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

Titration of the Fibroblast Collagenase Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 317-347 from the human protein was used as the immunogen for this MMP1 / Fibroblast Collagenase antibody.

Storage

Aliquot the MMP1 / Fibroblast Collagenase antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

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

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