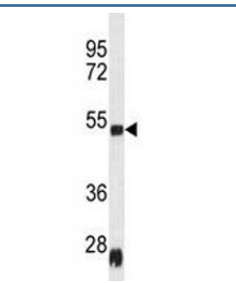
SERPINH1 Antibody / Heat Shock Protein 47 Antibody [clone 134CT3.1.1] (F40219)

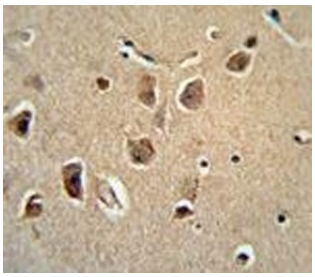
Catalog No.	Formulation	Size
F40219-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F40219-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human, Rat
Predicted Reactivity	Mouse, Bovine
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1
Clone Name	134CT3.1.1
Purity	Purified
UniProt	P29457
Applications	Western blot: 1:100-1:200 IHC (Paraffin): 1:50-1:100
Limitations	This SERPINH1 Antibody / Heat Shock Protein 47 Antibody is available for research use only.



SERPINH1 Antibody Rat Heart WB. Western blot analysis was performed using SERPINH1 Antibody on rat heart tissue lysate. A distinct immunoreactive band is detected at approximately 47 kDa, consistent with the expected molecular weight of Heat Shock Protein 47 (SERPINH1). The observed band demonstrates specific detection of this collagen-specific molecular chaperone in cardiac tissue, where extracellular matrix maintenance and collagen homeostasis are essential for normal structural integrity. This SERPINH1 Antibody / Heat Shock Protein 47 Antibody is well suited for Western blot studies of collagen biosynthesis, endoplasmic reticulum function, tissue remodeling, and fibrosis research.



SERPINH1 Antibody Human Brain IHC. SERPINH1 Antibody was used for immunohistochemical staining of FFPE human brain tissue. Following antigen retrieval, the tissue was incubated with the primary antibody, followed by an HRP-conjugated secondary antibody and chromogenic detection. Distinct cytoplasmic staining is observed in neuronal cell bodies, consistent with the intracellular localization of Heat Shock Protein 47 (HSP47), a collagen-specific molecular chaperone residing within the endoplasmic reticulum. This SERPINH1 Antibody / Heat Shock Protein 47 Antibody is suitable for immunohistochemical studies of protein folding, extracellular matrix biology, collagen biosynthesis, and tissue remodeling.

Description

SERPINH1 Antibody recognizes SERPINH1, better known as Heat Shock Protein 47 (HSP47), a collagen-specific molecular chaperone localized primarily within the endoplasmic reticulum. Unlike classical heat shock proteins that assist in the folding of numerous client proteins, SERPINH1 exhibits exceptional specificity for procollagen molecules, ensuring proper folding, stabilization of the triple-helical structure, and efficient intracellular transport before collagen is secreted into the extracellular matrix. Because collagen is the most abundant structural protein in mammals, SERPINH1 plays a critical role in connective tissue development, organ integrity, wound repair, and maintenance of normal tissue architecture. A SERPINH1 Antibody is therefore widely used to investigate collagen biosynthesis, extracellular matrix organization, and disorders associated with abnormal collagen deposition.

SERPINH1 expression is highest in collagen-producing cells such as fibroblasts, chondrocytes, osteoblasts, hepatic stellate cells, and activated myofibroblasts. The protein transiently binds procollagen within the endoplasmic reticulum, preventing misfolding and aggregation while facilitating proper maturation prior to secretion. Genetic disruption or reduced expression of SERPINH1 leads to defective collagen assembly, altered extracellular matrix composition, and impaired tissue development. Because of this specialized biological function, SERPINH1 has become an important marker for studies examining connective tissue biology, matrix homeostasis, and cellular responses to tissue injury. Researchers frequently evaluate SERPINH1 together with multiple collagen isoforms and additional extracellular matrix proteins to better understand collagen production and remodeling.

Abnormal regulation of SERPINH1 has been associated with numerous pathological conditions characterized by excessive collagen accumulation, including pulmonary, hepatic, renal, and cardiac fibrosis. Elevated expression has also been reported in a variety of malignancies where remodeling of the extracellular matrix promotes tumor growth, invasion, angiogenesis, and metastatic progression. Increased SERPINH1 expression within cancer-associated fibroblasts and stromal compartments has attracted growing interest as investigators seek to better understand the interactions between tumor cells and their surrounding microenvironment. Consequently, a SERPINH1 Antibody has become a valuable research reagent for studies of fibrosis, cancer biology, wound healing, extracellular matrix remodeling, and connective tissue disorders.

SERPINH1 is routinely analyzed using Western blot, immunohistochemistry, immunofluorescence, immunocytochemistry, flow cytometry, and immunoprecipitation to examine protein expression, intracellular localization, and changes during development or disease progression. Its characteristic endoplasmic reticulum localization and highly selective interaction with procollagen distinguish it from other members of the heat shock protein family. NSJ Bioreagents provides carefully validated antibodies to support investigations spanning basic cell biology, fibrosis research, and cancer studies. A SERPINH1 Antibody enables reliable detection of this essential collagen chaperone while supporting research into extracellular matrix biology, collagen maturation, and tissue remodeling.

Visit our HSP47 Antibody / Collagen Chaperone Antibody page for additional information about validated antibodies for studying SERPINH1, collagen biosynthesis, extracellular matrix remodeling, fibrosis, and tissue repair.

Application Notes

Titration of the SERPINH1 Antibody / Heat Shock Protein 47 Antibody may be required due to differences in protocols

and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 222-251 from the rat protein was used as the immunogen for this Serpinh1 antibody.

Storage

Aliquot the Serpinh1 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

SERPINH1 antibody, Heat Shock Protein 47 antibody, HSP47 antibody, Serpin Family H Member 1 antibody, Collagen Specific Chaperone antibody

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