HTRA1 Antibody / HtrA serine peptidase 1 [clone 31H06] (FY13087)

Catalog No.	Formulation	Size
FY13087	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA	100 ul

Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	2-3 weeks
Species Reactivity	Human
Format	Liquid
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	31H06
Purity	Affinity-chromatography
Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
UniProt	Q92743
Applications	Western Blot : 1:500-1:2000 Immunocytochemistry/Immunofluorescence : 1:50-1:200
Limitations	This HTRA1 antibody is available for research use only.

Description

HTRA1 antibody detects HtrA serine peptidase 1, encoded by the HTRA1 gene. This protein is a member of the HtrA family of serine proteases that regulate extracellular matrix remodeling, growth factor signaling, and stress responses. HtrA serine peptidase 1 is secreted and functions as a regulator of transforming growth factor beta signaling by degrading extracellular matrix proteins and growth factors. HTRA1 antibody provides researchers with a valuable reagent to study cell signaling, angiogenesis, and disease mechanisms.

HtrA serine peptidase 1 has been implicated in cancer, age related macular degeneration, and arthritis. Research with HTRA1 antibody has shown that increased expression suppresses transforming growth factor beta signaling, influencing proliferation and differentiation. In tumors, HTRA1 can act as a tumor suppressor by promoting degradation of pro survival factors, but in other contexts it may enhance invasion by degrading extracellular matrix components. This dual role underscores its complex function in tissue homeostasis and pathology.

In ophthalmology, polymorphisms in the HTRA1 gene are strongly associated with risk of age related macular degeneration. Studies with HTRA1 antibody have demonstrated elevated expression in retinal tissues from affected individuals, suggesting a role in disease pathogenesis through dysregulation of extracellular remodeling and angiogenesis. This makes HtrA serine peptidase 1 an important biomarker and potential therapeutic target in retinal disease.

HTRA1 also contributes to osteoarthritis and inflammatory joint disease. By degrading matrix proteins such as fibronectin and aggrecan, it influences cartilage turnover and inflammation. Research with HTRA1 antibody has confirmed its presence in synovial tissue and joint fluid, where it participates in matrix breakdown. Targeting HTRA1 activity is being investigated as a strategy to slow joint degeneration.

HTRA1 antibody is applied in western blotting, immunohistochemistry, and ELISA. Western blotting reveals multiple processed forms of the protein, immunohistochemistry shows localization in extracellular and pericellular spaces, and ELISA quantifies soluble levels in fluids. These applications make HTRA1 antibody essential in studies of extracellular proteases and disease.

By supplying validated HTRA1 antibody reagents, NSJ Bioreagents supports research into matrix biology, angiogenesis, and disease. Detection of HtrA serine peptidase 1 provides researchers with a means to explore how protease activity regulates signaling, remodeling, and pathology.

Application Notes

Optimal dilution of the HTRA1 antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human htrA1 was used as the immunogen for the HTRA1 antibody.

Storage

Store the HTRA1 antibody at -20oC.