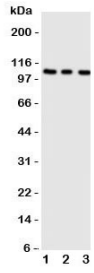
ADAMTS1 Antibody (R31182)

Catalog No.	Formulation	Size
R31182	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2.5% BSA and 0.025% sodium azide/thimerosal
UniProt	P97857
RRID	AB_3075893
Applications	Western blot: 0.5-1ug/ml
Limitations	This ADAMTS1 antibody is available for research use only.



ADAMTS1 Antibody Rat Tissues WB. Western blot analysis of ADAMTS1 expression using an ADAMTS1 antibody. Lane 1: rat liver tissue lysate. Lane 2: rat heart tissue lysate. Lane 3: rat brain tissue lysate. ADAMTS1, also known as ADAM Metallopeptidase with Thrombospondin Type 1 Motif 1, is a secreted extracellular matrix protease involved in tissue remodeling and angiogenesis. A prominent band is detected at approximately 100 kDa in all tissues, consistent with the expected molecular weight range of 84 to 120 kDa. The apparent molecular weight of ADAMTS1 can vary due to glycosylation and proteolytic processing. These results demonstrate endogenous expression of ADAMTS1 in rat tissues and support the utility of ADAMTS1 Antibody for studies of extracellular matrix remodeling, vascular biology, and tissue homeostasis.

Description

ADAMTS1 Antibody recognizes ADAM Metallopeptidase with Thrombospondin Type 1 Motif 1, a secreted zinc dependent protease belonging to the ADAMTS family of extracellular matrix remodeling enzymes. ADAMTS1 contains multiple thrombospondin motifs and functions in the processing of proteoglycans and other matrix components, thereby regulating

tissue architecture, cell migration, and angiogenesis. Originally identified as an inflammation associated gene, ADAMTS1 is widely expressed in reproductive tissues, vascular structures, and connective tissues and plays important roles in development, wound healing, and tissue homeostasis.

ADAMTS1 participates in the degradation and remodeling of extracellular matrix proteins including versican and aggrecan. Through these activities, it influences cell adhesion, migration, and interactions with the surrounding microenvironment. ADAMTS1 also modulates vascular growth by regulating angiogenic signaling pathways and interacting with growth factors and extracellular matrix components. In reproductive biology, ADAMTS1 contributes to ovulation, follicular development, and implantation, while in the cardiovascular system it participates in vascular remodeling and responses to injury.

Altered ADAMTS1 expression has been implicated in cancer, fibrosis, arthritis, inflammatory disorders, and cardiovascular disease. Depending on the cellular context, ADAMTS1 may exhibit either tumor suppressive or tumor promoting functions by influencing extracellular matrix turnover, angiogenesis, and metastatic potential. Dysregulated ADAMTS1 activity has also been associated with osteoarthritis and chronic inflammatory conditions characterized by abnormal matrix remodeling. Consequently, ADAMTS1 has emerged as an important target for studies of extracellular matrix biology and tissue remodeling.

Beyond its proteolytic functions, ADAMTS1 contributes to cellular signaling pathways that regulate proliferation, migration, and tissue repair. Interactions with cytokines, growth factors, and matrix proteins allow ADAMTS1 to coordinate dynamic changes in the extracellular environment during development and disease. Because extracellular matrix remodeling plays central roles in normal physiology and pathological processes, ADAMTS1 has become an important biomarker and therapeutic target in multiple fields of research.

ADAMTS1 Antibody is useful for investigations of extracellular matrix remodeling, angiogenesis, developmental biology, and cancer progression. Detection of endogenous ADAMTS1 provides a valuable tool for studies of tissue homeostasis, inflammation, and diseases associated with abnormal protease activity.

Learn more about proteins involved in angiogenesis and extracellular matrix remodeling by visiting our Angiogenesis Antibodies page, featuring ADAMTS1 antibodies and other mediators of vascular growth and tissue repair.

Application Notes

The stated application concentrations are suggested starting amounts. Titration of the ADAMTS1 antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

Amino acids 956-968 (KHYIDFCTLTQCS-mouse) were used as the immunogen for this ADAMTS1 antibody.

Storage

After reconstitution, the ADAMTS1 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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