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ADAMTS5 Recombinant Rabbit mAb

Catalog # AP98670

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	Q9UNA0
Other Accession	Q9UNA0
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Recombinant
Calculated MW	101718
Physical State	Liquid
Immunogen	Recombinant human ADAMTS5 protein
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Contains 1 disintegrin domain. Contains 1 peptidase M12B domain. Contains 2 TSP type-1 domains.
Post-translational modifications	The precursor is cleaved by a furin endopeptidase. C- and O-glycosylated. O-fucosylated by POFUT2 on a serine or a threonine residue found within the consensus sequence C1-X(2)-(S/T)-C2-G of the TSP type-1 repeat domains where C1 and C2 are the first and second cysteine residue of the repeat, respectively. Fucosylated repeats can then be further glycosylated by the addition of a beta-1,3-glucose residue by the glucosyltransferase, B3GALTL. Fucosylation can mediate the efficient secretion of ADAMTS family members. Can be C-glycosylated with one or two mannose molecules on tryptophan residues within the consensus sequence W-X-X-W of the TPRs, and N-glycosylated. These other glycosylations can also facilitate secretion. Glycosylated. Can be O-fucosylated by POFUT2 on a serine or a threonine residue found within the consensus sequence C1-X(2)-(S/T)-C2-G of the TSP type-1 repeat domains where C1 and C2 are the first and second cysteine residue of the repeat, respectively. Fucosylated repeats can then be further glycosylated by the addition of a beta-1,3-glucose residue by the glucosyltransferase, B3GALTL. Fucosylation mediates the efficient secretion of ADAMTS family members. Also can be C-glycosylated with one or two mannose molecules on tryptophan residues within the consensus sequence W-X-X-W of the TPRs, and N-glycosylated. These other glycosylations can also facilitate secretion.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This gene encodes a member of the ADAMTS (a disintegrin and metalloproteinase with thrombospondin motifs) protein family. Members of the family share several distinct protein modules, including a propeptide region, a metalloproteinase domain, a disintegrin-like domain, and a thrombospondin type 1 (TS) motif. Individual members of this family differ in the number of C-terminal TS motifs, and some have unique C-terminal domains. The encoded preproprotein is proteolytically processed to generate the mature enzyme. This enzyme contains two C-terminal TS motifs and functions as an aggrecanase that cleaves aggrecan, a major proteoglycan of

cartilage, and may mediate cartilage destruction in osteoarthritis. [provided by RefSeq, Feb 2016]

Additional Information

Gene ID	11096
Other Names	ADAM-TS 11; ADAM-TS 5; ADAM-TS5; ADAMTS-11; ADAMTS-5; ADAMTS11; ADMP-2; 9530092O11Rik; ADAMTS1; ASMP-2; ATS5_HUMAN; ADAMTS5; A disintegrin and metalloproteinase with thrombospondin motifs 11 (ADAM-TS 11 | ADAMTS-11); Aggrecanase-2; 3.4.24.-; ADMP2; ATS5_MOUSE; Implantin; ADAM metallopeptidase with thrombospondin type 1 motif 5; a disintegrin-like and metalloprotease (reprolysin type) with thrombospondin type 1 motif, 5 (aggrecanase-2)
Dilution	WB=1:500-2000,IHC-P=1:200-800,IHC-F=1:200-800,IF=1:200-800
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	ADAMTS5
Synonyms	ADAMTS11, ADMP2
Function	Metalloproteinase that plays an important role in connective tissue organization, development, inflammation and cell migration. Extracellular matrix (ECM) degrading enzyme that show proteolytic activity toward the hyalectan group of chondroitin sulfate proteoglycans (CSPGs) including ACAN, VCAN, BCAN and NCAN (PubMed:16133547, PubMed:18992360). Cleavage within the hyalectans occurs at Glu-Xaa recognition motifs. Plays a role in embryonic development, including limb and cardiac morphogenesis, and skeletal muscle development through its VCAN remodeling properties. Cleaves VCAN in the pericellular matrix surrounding myoblasts, facilitating myoblast contact and fusion which is required for skeletal muscle development and regeneration (By similarity). Participates in development of brown adipose tissue and browning of white adipose tissue (By similarity). Plays an important role for T-lymphocyte migration from draining lymph nodes following viral infection.
Cellular Location	Secreted, extracellular space, extracellular matrix
Tissue Location	Expressed at low level in placenta primarily but also detected in heart and brain, cervix, uterus, bladder, esophagus, rib cartilage, chondroblastoma, fibrous tissue and a joint capsule from an arthritic patient

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