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Rabbit Anti-ADAMTS2 antibody

SL5858R

Product Name:	ADAMTS2
Chinese Name:	整合素样金属蛋白酶与凝血酶2型抗体
Alias:	A disintegrin and metalloproteinase with thrombospondin motifs 2; A disintegrin like and metalloprotease (reprolysin type) with thrombospondin type 1 motif 2; ADAM metallopeptidase with thrombospondin type 1 motif 2; ADAM TS 2; ADAM TS2; ADAM-TS 2; ADAM-TS2; ADAMTS 3; ADAMTS-2; ADAMTS2; ATS2_HUMAN; EC 3.4.24.14; EDS VIIB; EDS VIIC; hPCPNI; NPI; PC I NP; PC I-NP; PCINP; PCPNI; pNPI; Procollagen I N proteinase; Procollagen I N-proteinase; Procollagen I/II amino propeptide processing enzyme; Procollagen I/II amino propeptide-processing enzyme; Procollagen N endopeptidase; Procollagen N-endopeptidase.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Pig,Cow,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	108kDa
Cellular localization:	Extracellular matrixSecretory protein
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human ADAMTS2:501-600/1211
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. 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.
PubMed:	PubMed

Product Detail:	ADAMTS2 is a member of the larger family of ADAMs (A Disintegrin And Metalloproteinase) metalloproteinases containing thrombospondin (TS) repeats. ADAMTS2 (A Disintegrin And Metalloproteinase with ThromboSpondin-2 motif), also known as Procollagen I N-Proteinase (PNP), was first described in calf skin as a proteinase that processes the amino end of Type-I collagen. PNP expression was found in skin, aorta, liver, tendon, bladder, retina, and skeletal muscle. Later, PNP was found to be a member of a larger family of ADAMs metalloproteinases containing thrombospondin (TS) repeats. Full length human ADAMTS2 contains 1211 amino acids (bovine, 1205 amino acids) and has a predicted mass of 134.7 kDa, but glycosylation and the abundance of cysteine residues gives ADAMTS2 a greater apparent molecular weight on reduced SDS-PAGE gels. Purified ADAMTS2 resolves at a lower molecular weight of 107 kDa, due to cleavage at the furin site. ADAMTS2 contains the canonical HexxHxxxxxH zinc metalloproteinase motif, and has been shown to be proteolytically active, cleaving procollagen. In addition to the metalloprotease domain, ADAMTS2 has a propeptide domain, a prohormone convertase (PC, furin) cleavage site, a cysteine-rich domain, and three thrombospondin 1 like domains, followed by a unique C-terminal domain. ADAMTS2 does not have a transmembrane domain, unlike many of the ADAMs proteases, and is a secreted protein, much of which binds to the ECM (extracellular matrix). ADAMTS2 knockout mice develop fragile skin (similar to dermatospaxis), and male infertility. Mutations of the ADAMTS2 gene are responsible for human Ehlers-Danlos syndrome type VII C and bovine dermatosparaxis. ADAMTS2 is involved in collagen biosynthesis and may also play role in development and angiogenesis. **Function:** Cleaves the propeptides of type I and II collagen prior to fibril assembly. Does not act on type III collagen. May also play a role in development that is independent of its role in collagen biosynthesis. **Subunit:** May belong to a multimeric complex. Binds specifically to collagen type XIV (By similarity). **Subcellular Location:** Secreted, extracellular space, extracellular matrix (By similarity). **Tissue Specificity:** Expressed at high level in skin, bone, tendon and aorta and at low levels in thymus and brain. **Post-translational modifications:** The precursor is cleaved by a furin endopeptidase (By similarity). 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 (By similarity).

DISEASE:
Ehlers-Danlos syndrome 7C (EDS7C) [MIM:225410]: A connective tissue disorder characterized by hyperextensible skin, atrophic cutaneous scars due to tissue fragility and joint hyperlaxity. Marked by extremely fragile tissues, hyperextensible skin and easy bruising. Facial skin contains numerous folds, as in the cutis laxa syndrome. Note=The disease is caused by mutations affecting the gene represented in this entry.

Similarity:
Contains 1 disintegrin domain.
Contains 1 peptidase M12B domain.
Contains 1 PLAC domain.
Contains 4 TSP type-1 domains.

SWISS:
O95450

Gene ID:
9509

Database links:

Entrez Gene: 9509 Human

Entrez Gene: 216725 Mouse

Entrez Gene: 287899 Rat

Omim: 604539 Human

SwissProt: O95450 Human

SwissProt: Q5NCE0 Mouse

SwissProt: Q8C9W3 Mouse

Unigene: 23871 Human

Unigene: 591725 Human

Unigene: 110597 Mouse

	Unigene: 339048 Mouse Unigene: 86986 Rat **Important Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.