Datasheet for ABIN5518725

anti-ADAMTS4 antibody (C-Term)

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Overview

Quantity:	100 µg
Target:	ADAMTS4
Binding Specificity:	AA 813-837, C-Term
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This ADAMTS4 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA

Product Details

Purpose:	Anti-ADAMTS4/ADAMTS4 Antibody Picoband®
Immunogen:	A synthetic peptide corresponding to a sequence at the C-terminus of human ADAMTS4, different from the related mouse sequence by five amino acids, and from the related rat sequence by six amino acids.
Sequence:	TPQDWLHRRA QILEILRRRP WAGRK
Isotype:	IgG
Cross-Reactivity (Details):	No cross-reactivity with other proteins
Characteristics:	Anti-ADAMTS4/ADAMTS4 Antibody Picoband® (ABIN5518725). Tested in ELISA, WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated

Product Details

	as Picoband, ensuring unmatched performance.
Purification:	Immunogen affinity purified.

Target Details

Target:	ADAMTS4
Alternative Name:	ADAMTS4 (ADAMTS4 Products)
Background:	Synonyms: A disintegrin and metalloproteinase with thrombospondin motifs 4,ADAM-TS 4,ADAM-TS4,ADAMTS-4,3.4.24.82,ADMP-1,Aggrecanase-1,ADAMTS4,KIAA0688,UNQ769/PRO1563, Tissue Specificity: Expressed in brain, lung and heart. Expressed at very low level in placenta and skeletal muscles. Isoform 2 is detected in osteoarthritic synovium. . Background: ADAMTS4, A disintegrin and metalloproteinase with thrombospondin motifs 4, is an enzyme that in humans is encoded by the ADAMTS4 gene. ADAMTS4 is a member of the large ADAMTS family of zinc-dependent proteases. The human ADAMTS4 gene is mapped to chromosome 1 by somatic cell hybrid analysis. The enzyme encoded by this gene lacks a C-terminal TS motif. It is responsible for the degradation of aggrecan, a major proteoglycan of cartilage, and brevican, a brain-specific extracellular matrix protein. The cleavage of aggrecan and brevican suggests key roles of this enzyme in arthritic disease and in the central nervous system, potentially, in the progression of glioma.
Molecular Weight:	58 kDa
Gene ID:	9507
UniProt:	O75173

Application Details

Application Notes:	Western blot, 0.1-0.5 µg/mL, Human ELISA, 0.1-0.5 µg/mL, - 1. Hurskainen, T. L., Hirohata, S., Seldin, M. F., Apte, S. S.ADAM-TS5, ADAM-TS6, and ADAM-TS7, novel members of a new family of zinc metalloproteases: general features and genomic distribution of the ADAM-TS family.J. Biol. Chem. 274: 25555-25563, 1999. 2. Tang, B. L., Hong, W.ADAMTS: a novel family of proteases with an ADAM protease domain and thrombospondin 1 repeats.FEBS Lett. 445: 223-225, 1999. 3. Tortorella, M. D., Burn, T. C., Pratta, M. A., Abbaszade, I., Hollis, J. M., Liu, R., Rosenfeld, S. A., Copeland, R. A., Decicco, C. P., Wynn, R., Rockwell, A., Yang, F., and 16 others.Purification and cloning of aggrecanase-1: a member of the ADAMTS

Application Details

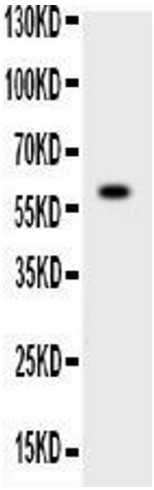
	family of proteins.Science 284: 1664-1666, 1999.
Comment:	Antibody can be supported by chemiluminescence kit ABIN921124 in WB, supported by ABIN921231 in IHC(P).
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.
Concentration:	500 µg/mL
Buffer:	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4, 0.01 mg Sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.

Publications

Product cited in:	Liu, Tian, Zhou, Wang, Gou, Zhang, Wang, Shen, Zhang, Zhang: "Protective effect of calcitonin on lumbar fusion-induced adjacent-segment disc degeneration in ovariectomized rat." in: **BMC musculoskeletal disorders**, Vol. 16, pp. 342, (2016) (PubMed). Chen, Bai, Liao, Peng, Wu, Wang, Zeng, Xie: "Electrospun poly(L-lactide)/poly(?-caprolactone) blend nanofibrous scaffold: characterization and biocompatibility with human adipose-derived stem cells." in: **PLoS ONE**, Vol. 8, Issue 8, pp. e71265, (2013) (PubMed).



Western Blotting

Image 1. Western blot analysis of ADAMTS4 using anti-ADAMTS4 antibody . Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. Lane 1: Recombinant Human ADAMTS4 Protein 0.5ng After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-ADAMTS4 antigen affinity purified polyclonal antibody (Catalog #) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for ADAMTS4 at approximately 58KD. The expected band size for ADAMTS4 is at 53KD.