

Anti-ADAMTS4 Picoband Antibody

Catalog # ABO10265

Product Information

Application	WB, IHC-P, E
Primary Accession	O75173
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for A disintegrin and metalloproteinase with thrombospondin motifs 4(ADAMTS4) detection. Tested with WB, IHC-P, ELISA in Human.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	9507
Other Names	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
Calculated MW	90197
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat ELISA , 0.1-0.5 µg/ml, Human, - Western blot, 0.1-0.5 µg/ml, Human
Subcellular Localization	Secreted, extracellular space, extracellular matrix .
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. .
Source	Eukaryota
Protein Name	A disintegrin and metalloproteinase with thrombospondin motifs 4
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human ADAMTS4 (813-837aa TPQDWLHRRRAQILEILRRRPWAGRK), different from the related mouse sequence by five amino acids, and from the related rat sequence by six amino acids.

Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20 °C for one year. After reconstitution, at 4 °C for one month. It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.

Protein Information

Name	ADAMTS4
Synonyms	KIAA0688
Function	Cleaves aggrecan, a cartilage proteoglycan, at the '392- Glu- -Ala-393' site and may be involved in its turnover (PubMed: 10356395 , PubMed: 10827174). Also cleaves COMP (PubMed: 39672391). May play an important role in the destruction of aggrecan in arthritic diseases. Could be a critical factor in the exacerbation of neurodegeneration in Alzheimer disease.
Cellular Location	Secreted, extracellular space, extracellular matrix
Tissue Location	Expressed in brain, lung and heart (PubMed:23897278). Expressed at very low level in placenta and skeletal muscles (PubMed:23897278). Isoform 2: Detected in osteoarthritic synovium (PubMed:16723216, PubMed:23897278)

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.

Images

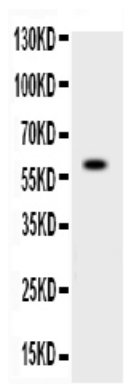


Figure 1. Western blot analysis of ADAMTS4 using anti-ADAMTS4 antibody (ABO10265). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. Lane 1: Recombinant Human ADAMTS4 Protein 0.5ng After Electrophoresis, proteins were transferred to a Nitrocellulose 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 # ABO10265) at 0.5 μ g/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 with Tanon 5200 system. A specific band was detected for ADAMTS4 at approximately 58KD. The expected band size for ADAMTS4 is at 53KD.

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