10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

ADAMTS4 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7439b

Product Information

Application	WB, E
Primary Accession	O75173
Reactivity	Human, Rat, Mouse
Predicted	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB18037
Calculated MW	90197
Antigen Region	705-736

Additional Information

Gene ID	9507
Other Names	A disintegrin and metalloproteinase with thrombospondin motifs 4, ADAM-TS 4, ADAM-TS4, ADAMTS-4, ADMP-1, Aggrecanase-1, ADAMTS4, KIAA0688
Target/Specificity	This ADAMTS4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 705-736 amino acids from the C-terminal region of human ADAMTS4.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	ADAMTS4 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

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)

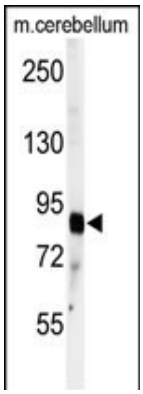
Background

ADAMTS4 is 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 enzyme 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.

References

Tortorella M.D., Burn T.C.Science 284:1664-1666(1999)
Tortorella M.D., Pratta M.A., Liu R.-Q.J. Biol. Chem. 275:25791-25797(2000)

Images



Western blot analysis of anti-ADAMTS4 Antibody (C-term)(Cat.#AP7439b) in mouse cerebellum tissue lysates (35ug/lane). ADAMTS4 (arrow) was detected using the purified Pab.