Datasheet for ABIN2859239

ADAMTS4 ELISA Kit

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Overview

Quantity:	96 tests
Target:	ADAMTS4
Binding Specificity:	AA 213-685
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	625-40.000 pg/mL
Minimum Detection Limit:	625 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human ADAMTS4
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: CHO Immunogen sequence: F213-C685
Specificity:	Expression system for standard: CHO Immunogen sequence: F213-C685
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity:	<20pg/mL
Material not included:	Microplate reader in standard size. Automated plate washer. Adjustable pipettes and pipette tips. Multichannel pipettes are recommended in the condition of large amount of samples in the detection. Clean tubes and Eppendorf tubes. Washing buffer (neutral PBS or TBS). Preparation of 0.01M TBS: Add 1.2g Tris, 8.5g Nacl

Target Details

Target:	ADAMTS4
Alternative Name:	ADAMTS4 (ADAMTS4 Products)
Background:	Protein Function: Cleaves aggrecan, a cartilage proteoglycan, and may be involved in its turnover. May play an important role in the destruction of aggrecan in arthritic diseases. Could also be a critical factor in the exacerbation of neurodegeneration in Alzheimer disease. Cleaves aggrecan at the '392-Glu-|-Ala-393' site. 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. 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, Full Gene Name: A disintegrin and metalloproteinase with thrombospondin motifs 4 Cellular Localisation: Secreted, extracellular space, extracellular matrix.
Gene ID:	9507
UniProt:	O75173

Application Details

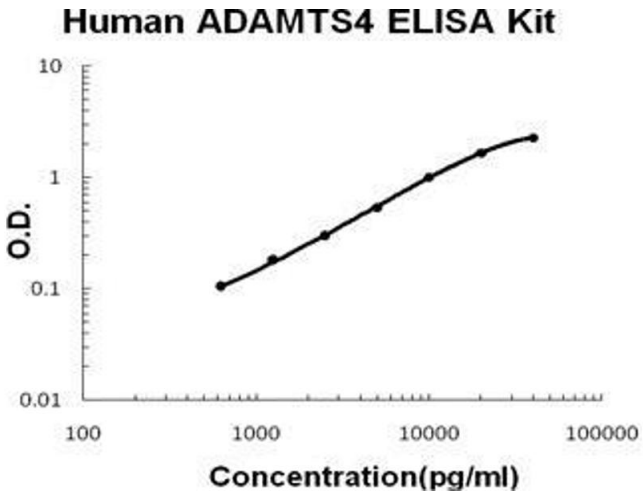
Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well assay was recommended for both standard and sample testing.
Comment:	Sequence similarities: Contains 1 disintegrin domain.

Application Details

	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. .
Plate:	Pre-coated
Protocol:	human ADAMTS4 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for ADAMTS4 has been precoated onto 96-well plates. Standards(CHO, F213-C685) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for ADAMTS4 is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate TMB was used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the human ADAMTS4 amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 40,000pg/mL, 20,000pg/mL, 10,000pg/mL, 5,000pg/mL, 2,500pg/mL, 1,250pg/mL, 625pg/mL human ADAMTS4 standard solutions into the precoated 96-well plate. Add 0.1 mL of the sample diluent buffer into the control well (Zero well). Add 0.1 mL of each properly diluted sample of human cell culture supernates, serum or plasma(heparin, EDTA) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human ADAMTS4 standard solution and each sample be measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(ng/ml): 5.9, Standard deviation: 0.248, CV(%): 4.2 • Sample 2: n=16, Mean(ng/ml): 12, Standard deviation: 0.612, CV(%): 5.1 • Sample 3: n=16, Mean(ng/ml): 21, Standard deviation: 1.2, CV(%): 5.7, • Sample 1: n=24, Mean(ng/ml): 6.5, Standard deviation: 0.377, CV(%): 5.8 • Sample 2: n=24, Mean(ng/ml): 14, Standard deviation: 0.882, CV(%): 6.3 • Sample 3: n=24, Mean(ng/ml): 23, Standard deviation: 1.66, CV(%): 7.2
Restrictions:	For Research Use only

Handling

Handling Advice:	Avoid multiple freeze-thaw cycles.
Storage:	-20 °C,4 °C
Storage Comment:	Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles
Expiry Date:	12 months



ELISA

Image 1. Human ADAMTS4 PicoKine ELISA Kit standard curve