Datasheet for ABIN1672847

ADAM12 ELISA Kit

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Overview

Quantity:	96 tests
Target:	ADAM12
Binding Specificity:	AA 29-513
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	156-10000 pg/mL
Minimum Detection Limit:	156 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human ADAM12
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Urine
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: CHO Immunogen sequence: R29-S513
Specificity:	Expression system for standard: CHO Immunogen sequence: R29-S513
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity:	<10pg/ml
Characteristics:	human ADAM12 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for ADAM12 has been precoated onto 96-well plates. Standards(CHO, R29-S513) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for ADAM12 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 ADAM12 amount of sample captured in plate. This kit recognizes pro-ADAM12, mature ADAM12, and ADAM12/TIMP-3 complex.
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:	ADAM12
Alternative Name:	ADAM12 (ADAM12 Products)
Background:	Protein Function: Involved in skeletal muscle regeneration, specifically at the onset of cell fusion. Also involved in macrophage-derived giant cells (MGC) and osteoclast formation from mononuclear precursors (By similarity). . Background: ADAM12(Disintegrin and metalloproteinase domain-containing protein 12), also known as MLTN, is an enzyme that in humans is encoded by the ADAM12 gene. This gene encodes a member of the ADAM(a disintegrin and metalloprotease) protein family. Members of this family are membrane-anchored proteins structurally related to snake venom disintegrins, and have been implicated in a variety of biological processes involving cell-cell and cell-matrix interactions, including fertilization, muscle development, and neurogenesis. This gene has two alternatively spliced transcripts: a shorter secreted form and a longer membrane-bound form. The shorter form is found to stimulate myogenesis. By RT-PCR and immunoblot analyses that expression of mouse Adam12 increases during muscle regeneration, while the levels of other ADAMs remain constant. Immunofluorescence analysis revealed staining of small, newly formed muscle fibers in regenerating but not normal adult muscle cells. By using of fluorescence in situ hybridization, the ADAM12 gene is mapped to human chromosome

Target Details

	10q26.3. Synonyms: Disintegrin and metalloproteinase domain-containing protein 12,ADAM 12,3.4.24.-,Meltrin-alpha,ADAM12,MLTN,UNQ346/PRO545, Full Gene Name: Disintegrin and metalloproteinase domain-containing protein 12 Cellular Localisation: Isoform 1: Cell membrane, Single-pass type I membrane protein.
Gene ID:	8038
UniProt:	O43184
Pathways:	EGFR Signaling Pathway

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. Tissue Specificity: Isoform 1 is expressed in placenta and skeletal, cardiac, and smooth muscle. Isoform 2 seems to be expressed only in placenta or in embryo and fetus. Both forms were expressed in some tumor cells lines. Not detected in brain, lung, liver, kidney or pancreas.
Plate:	Pre-coated
Assay Procedure:	Aliquot 0.1 mL per well of the 10000pg/mL, 5000pg/mL, 2500pg/mL, 1250pg/mL, 625pg/mL, 312pg/mL, 156pg/mL human ADAM12 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, plasma(heparin) or urine to each empty well. See "Sample Dilution Guideline" above for details. It is recom
Assay Precision:	• Sample 1: n=16, Mean(ng/ml): 1.5, Standard deviation: 0.07, CV(%): 4.6 • Sample 2: n=16, Mean(ng/ml): 4.2, Standard deviation: 0.18, CV(%): 4.3 • Sample 3: n=16, Mean(ng/ml): 7.4, Standard deviation: 0.29, CV(%): 3.9, • Sample 1: n=24, Mean(ng/ml): 1.6, Standard deviation: 0.09, CV(%): 5.6 • Sample 2: n=24, Mean(ng/ml): 4.1, Standard deviation: 0.21, CV(%): 5.1 • Sample 3: n=24, Mean(ng/ml): 7.2, Standard deviation: 0.36, CV(%): 5
Restrictions:	For Research Use only

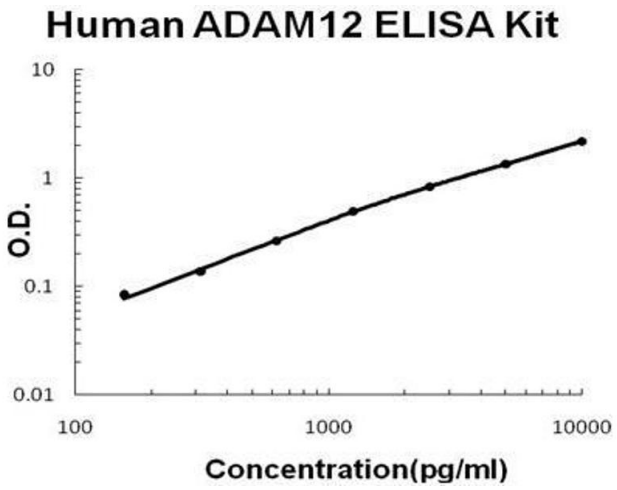
Handling

Handling Advice:	Avoid multiple freeze-thaw cycles.

Handling

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

Images



ELISA

Image 1. Human ADAM12 PicoKine ELISA Kit standard curve