Datasheet for ABIN1672825

PLAT ELISA Kit

1 Image | 1 Publication

Go to Product page

Overview

Quantity:	96 tests
Target:	PLAT
Binding Specificity:	AA 1-562
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	31.2-2000 pg/mL
Minimum Detection Limit:	31.2 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human PLAT/TPA
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA), Plasma (citrate), Urine
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: CHO Immunogen sequence: M1-P562
Specificity:	Expression system for standard: CHO Immunogen sequence: M1-P562
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity:	<10pg/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:	PLAT
Alternative Name:	PLAT (PLAT Products)
Background:	Protein Function: Converts the abundant, but inactive, zymogen plasminogen to plasmin by hydrolyzing a single Arg-Val bond in plasminogen. By controlling plasmin-mediated proteolysis, it plays an important role in tissue remodeling and degradation, in cell migration and many other physiopathological events. Plays a direct role in facilitating neuronal migration. Background: Plasminogen activator, tissue, also called PLAT or TPA is a serine protease. This gene encodes tissue-type plasminogen activator, a secreted serine protease which converts the proenzyme plasminogen to plasmin, a fibrinolytic enzyme. Tissue-type plasminogen activator is synthesized as a single chain which is cleaved by plasmin to a two chain disulfide linked protein. This gene was mapped to 8p11.21. This enzyme plays a role in cell migration and tissue remodeling. Increased enzymatic activity causes hyperfibrinolysis, which manifests as excessive bleeding, decreased activity leads to hypofibrinolysis which can result in thrombosis or embolism. Synonyms: Tissue-type plasminogen activator,t-PA,t-plasminogen activator,tPA,3.4.21.68,Alteplase,Reteplase,Tissue-type plasminogen activator chain A,Tissue-type plasminogen activator chain B,PLAT, Full Gene Name: Tissue-type plasminogen activator Cellular Localisation: Secreted, extracellular space.
Gene ID:	5327
UniProt:	P00750
Pathways:	Autophagy, Smooth Muscle Cell Migration, Platelet-derived growth Factor Receptor Signaling, SARS-CoV-2 Protein Interactome

Application Details

Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well

Application Details

	assay was recommended for both standard and sample testing.
Comment:	Sequence similarities: Belongs to the peptidase S1 family. Tissue Specificity: Synthesized in numerous tissues (including tumors) and secreted into most extracellular body fluids, such as plasma, uterine fluid, saliva, gingival crevicular fluid, tears, seminal fluid, and milk.
Plate:	Pre-coated
Protocol:	human PLAT ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for PLAT has been precoated onto 96-well plates. Standards(CHO, M1-P562) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for PLAT 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 PLAT amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 2000pg/mL,1000pg/mL, 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL, 31.2pg/mL human PLAT 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, EDTA, citrate) or urine to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human PLAT standard solution and each sample be measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(pg/ml): 191, Standard deviation: 11.65, CV(%): 6.1 • Sample 2: n=16, Mean(pg/ml): 512, Standard deviation: 24.1, CV(%): 4.7 • Sample 3: n=16, Mean(pg/ml): 925, Standard deviation: 50, CV(%): 5.4, • Sample 1: n=24, Mean(pg/ml): 244, Standard deviation: 17.57, CV(%): 7.2 • Sample 2: n=24, Mean(pg/ml): 732, Standard deviation: 42.5, CV(%): 5.8 • Sample 3: n=24, Mean(pg/ml): 1216, Standard deviation: 81.5, CV(%): 6.7
Restrictions:	For Research Use only

Handling

Handling Advice:	Avoid multiple freeze-thaw cycles.
Storage:	-20 °C,4 °C

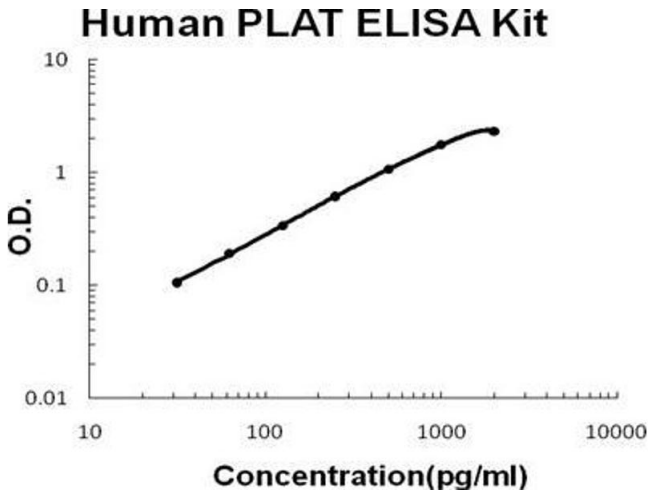
Handling

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

Publications

Product cited in:	Hu, Chang, Zhang, Wang, Lei, Li, Ren, Ji: "Mechanical Adaptability of the MMP-Responsive Film Improves the Functionality of Endothelial Cell Monolayer." in: **Advanced healthcare materials**, Vol. 6, Issue 14, (2018) (PubMed).

Images



ELISA

Image 1. Human PLAT/TPA PicoKine ELISA Kit standard curve