Datasheet for ABIN411365

PLAU ELISA Kit

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Overview

Quantity:	96 tests
Target:	PLAU
Binding Specificity:	AA 1-431
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	62.5-4000 pg/mL
Minimum Detection Limit:	62.5 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human uPA/PLAU
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: NSO Immunogen sequence: M1-L431
Specificity:	Expression system for standard: NSO Immunogen sequence: M1-L431
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity:	<5pg/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:	PLAU
Alternative Name:	PLAU (PLAU Products)
Background:	Protein Function: Specifically cleaves the zymogen plasminogen to form the active enzyme plasmin. Background: Plasminogen activator,urokinase(PLAU, uPA) converts plasminogen to plasmin. Plasmin is involved in processing of amyloid precursor protein and degrades secreted and aggregated amyloid-beta, a hallmark of Alzheimer disease(AD). Urokinase has a molecular mass of about 54 kD and is composed of 2 disulfide-linked chains, A and B, of molecular masses 18 kD and 33 kD, respectively. It localized on 10q24. uPA facilitates cell migration by localizing proteolisys on the cell surface and by inducing intracellular signalling pathways. In human vascular smooth muscle cell(VSMC), uPA stimulates migration via the uPA receptor(uPAR) signalling complex containing TYK2 and phosphatidylinositol 3-kinase(PI3-K). Synonyms: Urokinase-type plasminogen activator,U-plasminogen activator,uPA,3.4.21.73,Urokinase-type plasminogen activator long chain A,Urokinase-type plasminogen activator short chain A,Urokinase-type plasminogen activator chain B,PLAU, Full Gene Name: Urokinase-type plasminogen activator Cellular Localisation: Secreted.
Gene ID:	5328
UniProt:	P00749
Pathways:	Cellular Response to Molecule of Bacterial Origin, Carbohydrate Homeostasis, Autophagy, Smooth Muscle Cell Migration

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.

Application Details

Comment:	Sequence similarities: Belongs to the peptidase S1 family. Tissue Specificity: Expressed in the prostate gland and prostate cancers. .
Plate:	Pre-coated
Protocol:	human uPA ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for uPA has been precoated onto 96-well plates. Standards(NSO, M1-L431) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for uPA 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 uPA amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 4000pg/mL, 2000pg/mL,1000pg/mL, 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL human uPA 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 uPA standard solution and each sample be measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(pg/ml): 126, Standard deviation: 5.92, CV(%): 4.7 • Sample 2: n=16, Mean(pg/ml): 1895, Standard deviation: 64.43, CV(%): 3.4 • Sample 3: n=16, Mean(pg/ml): 2619, Standard deviation: 138.8, CV(%): 5.3, • Sample 1: n=24, Mean(pg/ml): 250, Standard deviation: 13.5, CV(%): 5.4 • Sample 2: n=24, Mean(pg/ml): 1568, Standard deviation: 95.65, CV(%): 6.1 • Sample 3: n=24, Mean(pg/ml): 2755, Standard deviation: 187.3, CV(%): 6.8
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

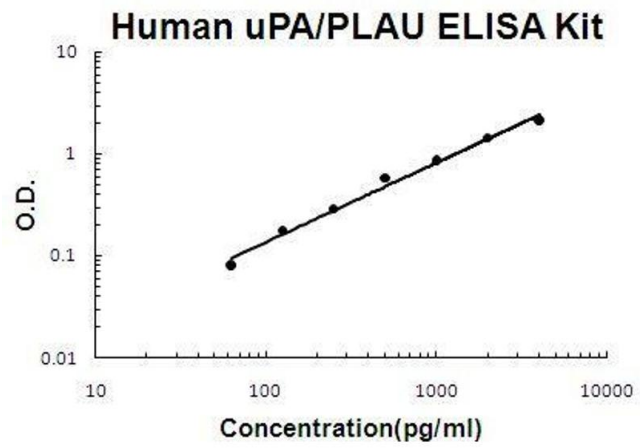
Publications

Product cited in:

Wang, Lee, Chou, Yang, Wei, Chen, Yao, Hsu, Zhu, Ying, Ye, Wang, Lim, Xia, Ko, Liu, Liu, Wu, Wang, Li, Prakash, Katz, Kang, Kim, Fleming, Fogelman, Javle, Maitra, Hung: " Angiogenin/Ribonuclease 5 Is an EGFR Ligand and a Serum Biomarker for Erlotinib Sensitivity in Pancreatic Cancer." in: **Cancer cell**, Vol. 33, Issue 4, pp. 752-769.e8, (2019) (PubMed).

There are more publications referencing this product on: Product page

Images



ELISA

Image 1. Human uPA/PLAU PicoKine ELISA Kit standard curve