



Datasheet for ABIN921122

PLG ELISA Kit



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1 Image

Overview

Quantity:	96 tests
Target:	PLG
Binding Specificity:	AA 98-355
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 Angiostatin K1-3
Brand:	PicoKine™
Sample Type:	Serum, Plasma, Cell Culture Supernatant
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: NSO Immunogen sequence: V98-S355(K1-3)
Specificity:	Expression system for standard: NSO,V98-S355(K1-3)
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.
Sensitivity:	<10pg/mL

Product Details

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: PLG

Alternative Name: PLG ([PLG Products](#))

Background: Protein Function: Plasmin dissolves the fibrin of blood clots and acts as a proteolytic factor in a variety of other processes including embryonic development, tissue remodeling, tumor invasion, and inflammation. In ovulation, weakens the walls of the Graafian follicle. It activates the urokinase-type plasminogen activator, collagenases and several complement zymogens, such as C1 and C5. Cleavage of fibronectin and laminin leads to cell detachment and apoptosis. Also cleaves fibrin, thrombospondin and von Willebrand factor. Its role in tissue remodeling and tumor invasion may be modulated by CSPG4. Binds to cells. .

Background: Ang K1-3 is a single, non-glycosylated polypeptide chain containing 259 amino acids. It represents a proteolytic fragment of plasminogen containing the first three kringle structures. Ang K1-3 reduces endothelial cell proliferation and acts as a potent inhibitor of angiogenesis and tumor growth. It displays increased inhibitory activity($ED_{50} = 70$ nM) relative to kringles 1-4($ED_{50} = 135$ nM).

Synonyms: Plasminogen,3.4.21.7,Plasmin heavy chain A,Activation peptide,Angiostatin,Plasmin heavy chain A, short form,Plasmin light chain B,PLG,

Full Gene Name: Plasminogen

Cellular Localisation: Secreted . Locates to the cell surface where it is proteolytically cleaved to produce the active plasmin. Interaction with HRG tethers it to the cell surface.

Gene ID: 5340

UniProt: [P00747](#)

Pathways: [Complement System](#), [Lipid Metabolism](#)

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: Belongs to the peptidase S1 family. Plasminogen subfamily.

Application Details

Tissue Specificity: Present in plasma and many other extracellular fluids. It is synthesized in the liver.

Plate: Pre-coated

Protocol: human Angiostatin K1-3 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for Angiostatin K1-3 has been precoated onto 96-well plates. Standards (NS0,V98-S355(K1-3)) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for Angiostatin K1-3 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 Angiostatin K1-3 amount of sample captured in plate.

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 Angiostatin K1-3 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 serum, plasma or cell culture supernates to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human Angiostatin K1-3 standard solution and each sample be measured in duplicate.

Assay Precision:

- Sample 1: n=16, Mean(ng/ml): 1.09, Standard deviation: 0.041, CV(%): 3.8
- Sample 2: n=16, Mean(ng/ml): 3.68, Standard deviation: 0.155, CV(%): 4.2
- Sample 3: n=16, Mean(ng/ml): 6.96, Standard deviation: 0.320, CV(%): 4.6,
- Sample 1: n=24, Mean(ng/ml): 1.13, Standard deviation: 0.057, CV(%): 5
- Sample 2: n=24, Mean(ng/ml): 3.75, Standard deviation: 0.199, CV(%): 5.3
- Sample 3: n=24, Mean(ng/ml): 7.04, Standard deviation: 0.415, CV(%): 5.9

Restrictions: For Research Use only

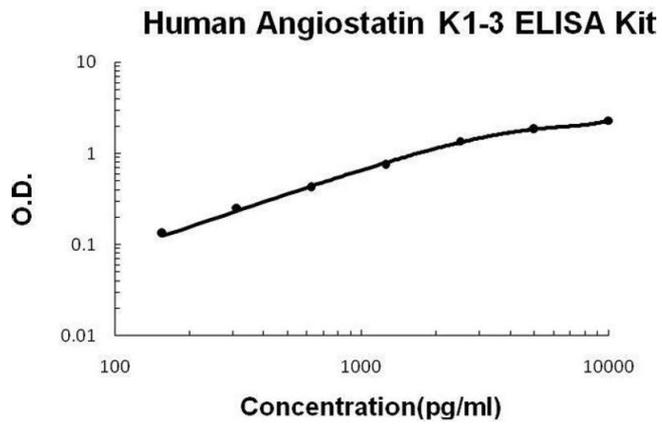
Handling

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 Angiostatin K1-3 PicoKine ELISA Kit standard curve