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Product datasheet

Human Plasminogen ELISA Kit (PLG) ab108893

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Overview

Product name Human Plasminogen ELISA Kit (PLG)

Detection methodColorimetric

Precision

Sample	n	Mean	SD	CV%
Overall				4.7%

Inter-assay

Intra-assav

Sample	n	Mean	SD	CV%
Overall				9%

Sample type Cell culture supernatant, Urine, Serum, Plasma, Tissue, Cell Lysate

Assay type Sandwich (quantitative)

Sensitivity = 0.26 ng/ml

Range 0.625 ng/ml - 40 ng/ml

Recovery = 101 %Assay time 3h 00m

Assay duration Multiple steps standard assay

Species reactivity Reacts with: Human

Product overview Human Plasminogen ELISA kit (PLG) is designed for the quantitative measurement of

Plasminogen (PLG) concentrations in Human plasma, serum, urine, saliva, milk, tissue samples,

cerebrospinal fluid, cell culture, and cell lysate samples.

A Plasminogen specific antibody has been precoated onto 96-well plates and blocked. Standards or test samples are added to the wells and subsequently a Plasminogen specific biotinylated detection antibody is added and then followed by washing with wash buffer. Streptavidin-Peroxidase Conjugate is added and unbound conjugates are washed away with wash buffer. TMB is then used to visualize Streptavidin-Peroxidase enzymatic reaction. TMB is catalyzed by Streptavidin-Peroxidase to produce a blue color product that changes into yellow after adding acidic stop solution. The density of yellow coloration is directly proportional to the amount of Plasminogen captured in plate.

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Get higher sensitivity in only 90 minutes with Human Plasminogen ELISA Kit (<u>ab196262</u>) from our SimpleStep ELISA[®] range.

The entire kit may be stored at -20°C for long term storage before reconstitution - Avoid repeated freeze-thaw cycles.

Platform

Microplate

Properties

Storage instructions

Store at -20°C. Please refer to protocols.

Components	1 x 96 tests
100X Streptavidin-Peroxidase Conjugate	1 x 80µl
10X Diluent M Concentrate	1 x 30ml
20X Wash Buffer Concentrate	2 x 30ml
50X Biotinylated Human Plasminogen Antibody	1 x 120µl
Chromogen Substrate	1 x 7ml
Plasminogen Microplate (12 x 8 well strips)	1 unit
Plasminogen Standard	1 vial
Sealing Tapes	3 units
Stop Solution	1 x 11ml

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.

Angiostatin is an angiogenesis inhibitor that blocks neovascularization and growth of experimental primary and metastatic tumors in vivo.

Tissue specificity Involvement in disease

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

Defects in PLG are a cause of susceptibility to thrombosis (THR) [MIM:188050]. It is a multifactorial disorder of hemostasis characterized by abnormal platelet aggregation in response to various agents and recurrent thrombi formation.

Defects in PLG are the cause of plasminogen deficiency (PLGD) [MIM:217090]. PLGD is characterized by decreased serum plasminogen activity. Two forms of the disorder are distinguished: type 1 deficiency is additionally characterized by decreased plasminogen antigen levels and clinical symptoms, whereas type 2 deficiency, also known as dysplasminogenemia, is characterized by normal, or slightly reduced antigen levels, and absence of clinical manifestations.

Plasminogen deficiency type 1 results in markedly impaired extracellular fibrinolysis and chronic mucosal pseudomembranous lesions due to subepithelial fibrin deposition and inflammation. The most common clinical manifestation of type 1 deficiency is ligneous conjunctivitis in which pseudomembranes formation on the palpebral surfaces of the eye progresses to white, yellowwhite, or red thick masses with a wood-like consistency that replace the normal mucosa.

Belongs to the peptidase S1 family. Plasminogen subfamily. Sequence similarities

> Contains 5 kringle domains. Contains 1 PAN domain.

Contains 1 peptidase S1 domain.

Domain Kringle domains mediate interaction with CSPG4.

Post-translational N-linked glycan contains N-acetyllactosamine and sialic acid. O-linked glycans consist of Galmodifications

GalNAc disaccharide modified with up to 2 sialic acid residues (microheterogeneity).

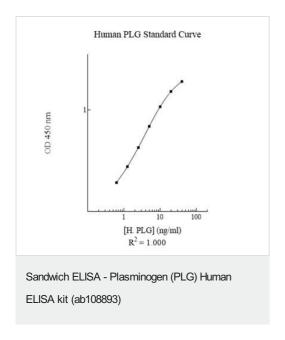
In the presence of the inhibitor, the activation involves only cleavage after Arg-580, yielding two chains held together by two disulfide bonds. In the absence of the inhibitor, the activation involves

additionally the removal of the activation peptide.

Cellular localization 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.

Images



Standard curve: mean of duplicates (+/- SD) with background reads subtracted

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