# abcam

### Product datasheet

## Pig Plasminogen ELISA Kit ab 190538

### 1 Image

Overview

**Product name** 

Pig Plasminogen ELISA Kit

**Detection method** 

Colorimetric

**Precision** 

Recovery

Sample n Mean SD CV%

Serum < 10%

Inter-assay

Intra-assay

Sample	n	Mean	SD	CV%
Serum				< 10%

Sample type Serum, Plasma

**Assay type** Sandwich (quantitative)

Sensitivity 2.4137 ng/ml

**Range** 6.25 ng/ml - 200 ng/ml

5.25 fig/fill 255 fig/fill

Sample specific recovery

Sample type	Average %	Range
Serum	< 85	% - %

**Assay duration** Multiple steps standard assay

Species reactivity Reacts with: Pig

**Product overview**Abcam's Plasminogen Pig ELISA kit (ab190538) is an *in vitro* enzyme-linked immunosorbent assay (ELISA) for the quantitative measurement of Plasminogen in pig serum and plasma.

In this assay the Plasminogen present in samples reacts with the anti-Plasminogen antibodies which have been adsorbed to the surface of polystyrene microtitre wells. After the removal of unbound proteins by washing, anti-PMG antibodies conjugated with horseradish peroxidase (HRP), are added. These enzyme-labeled antibodies form complexes with the previously bound PMG. Following another washing step, the enzyme bound to the immunosorbent is assayed by the addition of a chromo¬genic substrate, 3,3',5,5'-tetramethylbenzidine (TMB). The quantity of bound enzyme varies directly with the concentration of PMG in the sample tested; thus, the absorbance,

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at 450 nm, is a measure of the concentration of PMG in the test sample. The quantity of PMG in the test sample can be interpolated from the standard curve constructed from the standards, and corrected for sample dilution.

**Notes** 

Plasminogen (PMG) is a glycoprotein produced by the liver. It is the precursor for plasmin, which targets fibrin in the process of dissolution of fibrin blood clots. Plasminogen is present in plasma and most extravascular fluids. The important role of plasminogen in fibrinolytic system makes it an interesting marker for various diseases.

**Platform** 

Microplate

#### **Properties**

#### Storage instructions

Store at +4°C. Please refer to protocols.

Components	1 x 96 tests
20X Wash Buffer Concentrate	1 x 50ml
5X Diluent Concentrate	1 x 50ml
Chromogen Substrate Solution	1 x 12ml
Plasminogen Pig Antibody coated microwells	1 unit
Plasminogen Pig Calibrator (Lyophilized)	1 vial
Plasminogen Pig HRP Conjugate	1 vial
Stop Solution	1 x 12ml

#### **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

 $\label{present} \mbox{Present in plasma and many other extracellular fluids. It is synthesized in the liver.}$ 

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

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# Tissue specificity

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.

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

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 Gal-

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

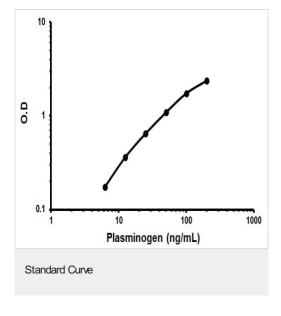
additionally the removal of the activation peptide.

**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**

modifications



Representative standard curve using ab190538 Plasminogen Pig Kit ELISA kit

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