

Pig Prothrombin ELISA Kit ab108890

1 Image

Overview

Product name Pig Prothrombin ELISA Kit

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Overall				3.1%

Inter-assay

Sample	n	Mean	SD	CV%
Overall				10.5%

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

Assay type Sandwich (quantitative)

Sensitivity = 0.23 ng/ml

Range 1.563 ng/ml - 25 ng/ml

Recovery 98 %

Assay time 4h 00m

Assay duration Multiple steps standard assay

Species reactivity **Reacts with:** Pig

Product overview

Abcam's Prothrombin Pig *in vitro* ELISA (Enzyme-Linked Immunosorbent Assay) kit is designed for the quantitative measurement of prothrombin levels in plasma, serum, cell culture supernatants, cell lysate and tissue samples.

A Prothrombin specific antibody has been precoated onto 96-well plates and blocked. Standards or test samples are added to the wells and subsequently a Prothrombin specific biotinylated detection antibody is added and then followed by washing with wash buffer. Avidin-Biotin-Peroxidase Complex is added and unbound conjugates are washed away with wash buffer. TMB is then used to visualize HRP enzymatic reaction. TMB is catalyzed by HRP 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 Prothrombin captured in plate.

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 Pig Prothrombin Antibody	1 x 120µl
Chromogen Substrate	1 x 7ml
Prothrombin Microplate (12 x 8 well strips)	1 unit
Prothrombin Standard	1 vial
Sealing Tapes	3 units
Stop Solution	1 x 11ml

Function Thrombin, which cleaves bonds after Arg and Lys, converts fibrinogen to fibrin and activates factors V, VII, VIII, XIII, and, in complex with thrombomodulin, protein C. Functions in blood homeostasis, inflammation and wound healing.

Tissue specificity Expressed by the liver and secreted in plasma.

Involvement in disease Defects in F2 are the cause of factor II deficiency (FA2D) [MIM:613679]. It is a very rare blood coagulation disorder characterized by mucocutaneous bleeding symptoms. The severity of the bleeding manifestations correlates with blood factor II levels.
Genetic variations in F2 may be a cause of susceptibility to ischemic stroke (ISCHSTR) [MIM:601367]; also known as cerebrovascular accident or cerebral infarction. A stroke is an acute neurologic event leading to death of neural tissue of the brain and resulting in loss of motor, sensory and/or cognitive function. Ischemic strokes, resulting from vascular occlusion, is considered to be a highly complex disease consisting of a group of heterogeneous disorders with multiple genetic and environmental risk factors.
Defects in F2 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. Note=A common genetic variation in the 3-prime untranslated region of the prothrombin gene is associated with elevated plasma prothrombin levels and an increased risk of venous thrombosis.

Sequence similarities Belongs to the peptidase S1 family.
Contains 1 Gla (gamma-carboxy-glutamate) domain.
Contains 2 kringle domains.

Contains 1 peptidase S1 domain.

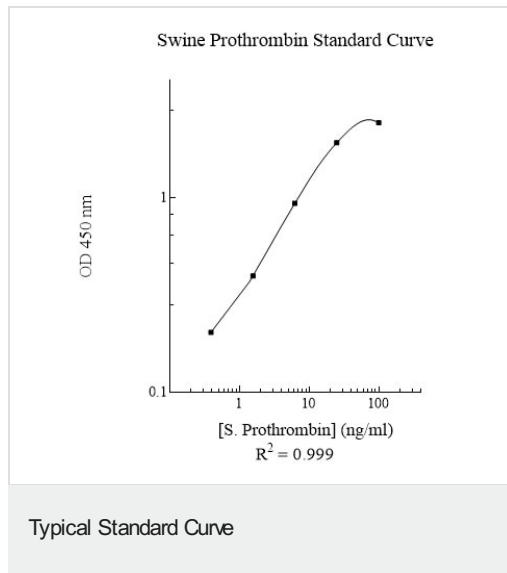
Post-translational modifications

The gamma-carboxyglutamyl residues, which bind calcium ions, result from the carboxylation of glutamyl residues by a microsomal enzyme, the vitamin K-dependent carboxylase. The modified residues are necessary for the calcium-dependent interaction with a negatively charged phospholipid surface, which is essential for the conversion of prothrombin to thrombin.

Cellular localization

Secreted > extracellular space.

Images



Representative Standard Curve using ab108890

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