abcam

Product datasheet

Canine Fibrinogen ELISA Kit ab205083

1 Image

Overview

Product name Canine Fibrinogen ELISA Kit

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Overall				< 10%

Inter-assay

Sample	n	Mean	SD	CV%
Overall				< 10%

Sample type Serum, Plasma

Assay type Sandwich (quantitative)

Sensitivity 1.27 ng/ml

Range 6.25 ng/ml - 200 ng/ml

Recovery > 85 %

Sample specific recovery

Sample type	Average %	Range
Serum	> 85	6.25ng/ml - 200ng/ml

Assay time 1h 5m

Assay duration Multiple steps standard assay

Species reactivity **Reacts with:** Dog

Product overview Fibrinogen in vitro ELISA (Enzyme-Linked Immunosorbent Assay) kit is designed for the quantitative measurement of Fibrinogen protein in dog biological samples.

Notes In this assay the Fibrinogen present in samples reacts with the anti-Fibrinogen antibodies which have been adsorbed to the surface of polystyrene microtitre wells. After the removal of unbound proteins by washing, anti-FIB antibodies conjugated with horseradish peroxidase (HRP), are added. These enzyme-labeled antibodies form complexes with the previously bound FIB.

Following another washing step, the enzyme bound to the immunosorbent is assayed by the addition of a chromogenic substrate, 3,3',5,5'-tetramethylbenzidine (TMB). The quantity of bound enzyme varies directly with the concentration of FIB in the sample tested; thus, the absorbance, at 450 nm, is a measure of the concentration of FIB in the test sample. The quantity of FIB in the test sample can be interpolated from the standard curve constructed from the standards, and corrected for sample dilution.

Soluble Fibrinogen (FIB) circulates in the blood and provides the material from which the insoluble fibrin clot is formed during blood coagulation. Fibrinogen is an acute phase reactant that may be a useful marker for infection and inflammation. This ELISA kit can be used to measure Fibrinogen in biological samples.

Platform Pre-coated microplate (12 x 8 well strips)

Properties

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

Components	1 x 96 tests
100X HRP Conjugated Enzyme Antibody	1 x 150µl
20X Wash Buffer Concentrate	1 x 50ml
5X Diluent Concentration	1 x 50ml
Anti-Dog Fibrinogen ELISA Microplate	1 unit
Chromogen Substrate Solution	1 x 12ml
Dog Fibrinogen Calibrator	1 vial
Stop Solution	1 x 12ml

Function Fibrinogen has a double function: yielding monomers that polymerize into fibrin and acting as a cofactor in platelet aggregation.

Tissue specificity Plasma.

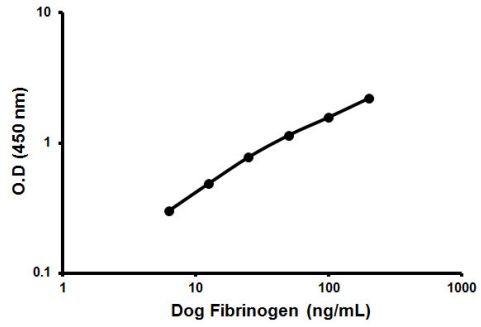
Involvement in disease Defects in FGA are a cause of congenital afibrinogenemia (CAFBN) [MIM:202400]. This is a rare autosomal recessive disorder characterized by bleeding that varies from mild to severe and by complete absence or extremely low levels of plasma and platelet fibrinogen. Note=The majority of cases of afibrinogenemia are due to truncating mutations. Variations in position Arg-35 (the site of cleavage of fibrinopeptide a by thrombin) leads to alpha-dysfibrinogenemias.
Defects in FGA are a cause of amyloidosis type 8 (AMYL8) [MIM:105200]; also known as systemic non-neuropathic amyloidosis or Ostertag-type amyloidosis. AMYL8 is a hereditary generalized amyloidosis due to deposition of apolipoprotein A1, fibrinogen and lysozyme amyloids. Viscera are particularly affected. There is no involvement of the nervous system. Clinical features include renal amyloidosis resulting in nephrotic syndrome, arterial hypertension, hepatosplenomegaly, cholestasis, petechial skin rash.

Sequence similarities Contains 1 fibrinogen C-terminal domain.

Domain A long coiled coil structure formed by 3 polypeptide chains connects the central nodule to the C-terminal domains (distal nodules). The long C-terminal ends of the alpha chains fold back,

	contributing a fourth strand to the coiled coil structure.
Post-translational modifications	The alpha chain is not glycosylated. Forms F13A-mediated cross-links between a glutamine and the epsilon-amino group of a lysine residue, forming fibronectin-fibrinogen heteropolymers. About one-third of the alpha chains in the molecules in blood were found to be phosphorylated. Conversion of fibrinogen to fibrin is triggered by thrombin, which cleaves fibrinopeptides A and B from alpha and beta chains, and thus exposes the N-terminal polymerization sites responsible for the formation of the soft clot. The soft clot is converted into the hard clot by factor XIIIA which catalyzes the epsilon-(gamma-glutamyl)lysine cross-linking between gamma chains (stronger) and between alpha chains (weaker) of different monomers. Phosphorylation sites are present in the extracellular medium.
Cellular localization	Secreted.

Images



Standard Curve.

Representative standard curve using ab205083 Dog Fibrinogen ELISA Kit.

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