abcam

Product datasheet

Factor VII Human Chromogenic Activity Assay Kit ab108830

1 References 2 Images

Overview

Product name Factor VII Human Chromogenic Activity Assay Kit

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Overall	60			5.2%

Inter-assay

Sample	n	Mean	SD	CV%
Overall	60			10.5%

Sample type Cell culture supernatant, Serum, Plasma

Assay type Enzyme activity (quantitative)

Sensitivity 5 mIU/ml

Assay time 3h 00m

Species reactivity **Reacts with:** Human

Product overview Factor VII Human Chromogenic Activity Assay Kit (ab108830) has been developed to determine human FVII activity in plasma, serum and cell culture supernatants. The assay couples immunofunctional and indirect amidolytic assay. A polyclonal antibody specific for Human FVII has been pre-coated onto a microplate and active FVII is bound to the immobilized antibody. The assay measures the ability of lipoprotein TF/FVIIa to activate factor X (FX) to factor Xa. The amidolytic activity of the TF/FVIIa complex is quantitated by the amount of FXa produced using a highly specific FXa substrate releasing a yellow para-nitroaniline (pNA) chromophore. The change in absorbance of the pNA at 405 nm is directly proportional to the FVII enzymatic activity.

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

Notes Factor VII (FVII) is a vitamin K-dependent plasma glycoprotein that is synthesized in the liver and circulates in blood as a single-chain inactive zymogen with a molecular mass of 50 kDa. Upon tissue damage and vascular injury, the cell surface receptor and cofactor tissue factor (TF) binds

and allosterically activates FVII to its active form, FVIIa. The TF/FVIIa complex catalyzes the conversion of both factor IX to factor IXa and factor X to factor Xa to initiate coagulation via the extrinsic pathway. Very low levels of FVII are associated with severe coagulation disorders. Elevated plasma levels of FVII coagulant activity constitute an independent risk factor for fatal outcomes of coronary heart disease in middle-aged men.

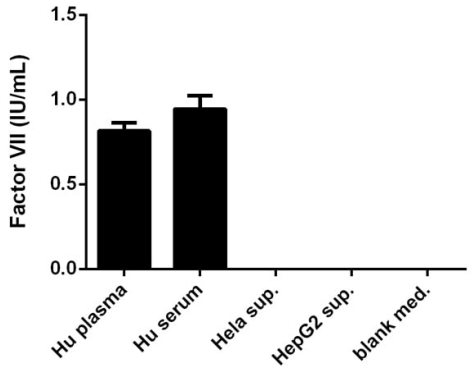
Platform Microplate reader

Properties

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

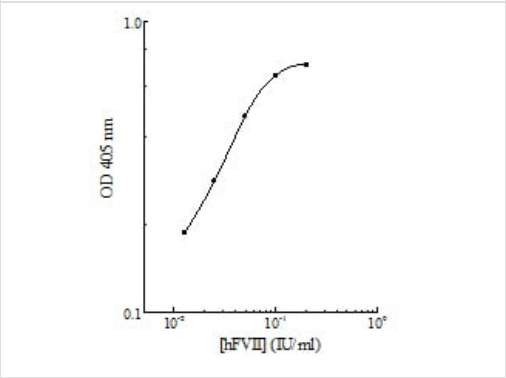
Components	100 tests
10X Diluent M Concentrate	1 x 20ml
20X Wash Buffer Concentrate	1 x 30ml
Assay Diluent	1 x 20ml
FXa Substrate	2 units
Human FVII Microplate	1 x 96 units
Human FVII Standard	1 unit
Human FX	1 unit
rhTF (lipoprotein)	1 unit
Sealing Tapes	3 units

Images



Factor VII measured in biological fluids showing quantity (IU) per mL of tested sample

Functional Studies - Factor VII Human Chromogenic Activity Kit (ab108830)



Standard Curve

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