

Factor X Human Chromogenic Activity Assay Kit ab108833

[1 References](#) [画像数 5](#)

製品の概要

製品名 Factor X Human Chromogenic Activity Assay Kit

検出方法 Colorimetric

サンプルの種類 Cell culture supernatant, Plasma

アッセイタイプ Enzyme activity (quantitative)

検出感度 = 0.009 µg/ml

検出範囲 0.016 µg/ml - 4 µg/ml

種交差性 交差種: Human

製品の概要

Factor X Human Chromogenic Activity Assay Kit (ab108833) is developed to determine human Factor X activity in plasma and cell culture. The assay measures the activation of zymogen Factor X to Factor Xa by RVV. The amidolytic activity of the Factor Xa is quantitated using a highly specific Factor Xa substrate releasing a yellow para-nitroaniline (pNA) chromophore. The change in absorbance of the pNA at 405 nm is directly proportional to the Factor X enzymatic activity.

High level of FX activity samples: range of 0.125-8 µg/ml
Low level of FX activity samples: range of 0.0156-1 µg/ml

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

特記事項

Factor X is a plasma serine protease zymogen involved in the blood coagulation cascade. Factor X is purified from plasma as a two-chain protein consisting of a 45-kDa heavy chain and a 17-kDa light chain. The Factor X heavy chain is cleaved during coagulation by several different proteases including the intrinsic Xase complex, the Factor X-activating enzyme from Russell's viper venom (RVV) and trypsin, and also by extrinsic (tissue Factor/Factor VIIa) pathway to give an active enzyme Factor Xa. Factor Xa as the activator of prothrombin occupies a central position linking the two blood coagulation pathways.

試験プラットフォーム

Microplate reader

製品の特性

保存方法

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

内容	100 tests
Assay Diluent	1 x 5ml
Factor X Standard	1 unit
Factor Xa Substrate	2 vials
Microplate	1 unit
RVV	1 vial
Sample Diluent	1 x 5ml
Sealing Tapes	3 units

機能

Factor Xa is a vitamin K-dependent glycoprotein that converts prothrombin to thrombin in the presence of factor Va, calcium and phospholipid during blood clotting.

組織特異性

Plasma; synthesized in the liver.

関連疾患

Defects in F10 are the cause of factor X deficiency (FA10D) [MIM:227600]. A hemorrhagic disease with variable presentation. Affected individuals can manifest prolonged nasal and mucosal hemorrhage, menorrhagia, hematuria, and occasionally hemarthrosis. Some patients do not have clinical bleeding diathesis.

配列類似性

Belongs to the peptidase S1 family.
 Contains 2 EGF-like domains.
 Contains 1 Gla (gamma-carboxy-glutamate) domain.
 Contains 1 peptidase S1 domain.

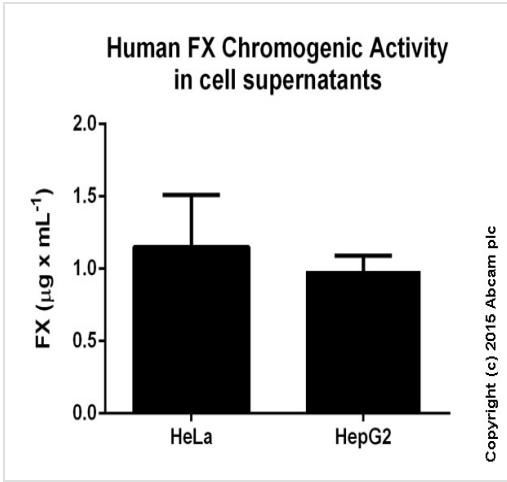
翻訳後修飾

The vitamin K-dependent, enzymatic carboxylation of some glutamate residues allows the modified protein to bind calcium.
 N- and O-glycosylated.
 The activation peptide is cleaved by factor IXa (in the intrinsic pathway), or by factor VIIa (in the extrinsic pathway).
 The iron and 2-oxoglutarate dependent 3-hydroxylation of aspartate and asparagine is (R) stereospecific within EGF domains.

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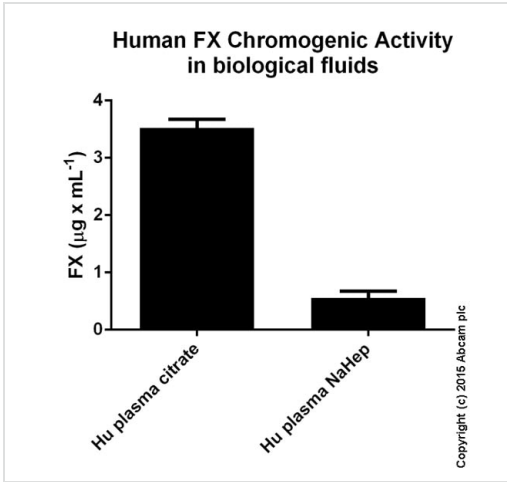
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画像



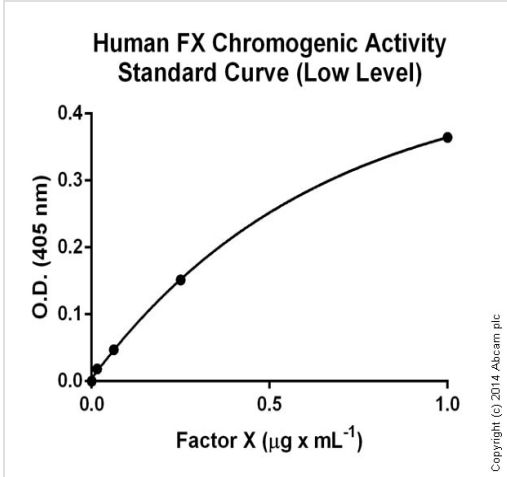
Factor X Chromogenic Activity measured in cell culture supernatants showing quantity (ug) per mL of tested sample after 40 min of incubation. Values calculated based on Low Level Standard Curve. Samples were diluted 2-10 fold.

Functional Studies - Factor X Human Chromogenic Activity Assay Kit (ab108833)



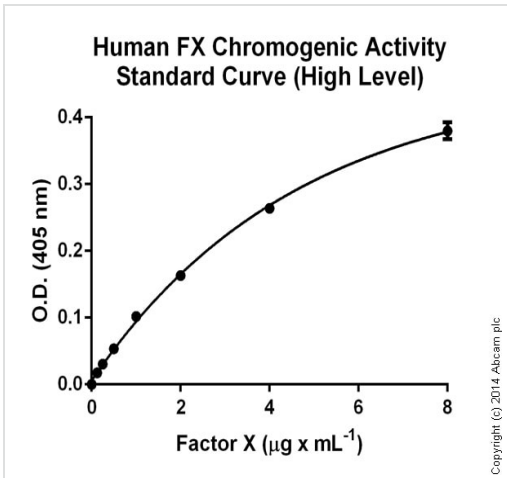
Factor X Chromogenic Activity measured in biological fluids showing quantity (ug) per mL of tested sample after 10 min of incubation. Values calculated based on High Level Standard Curve. Samples were diluted 2 fold.

Functional Studies - Factor X Human Chromogenic Activity Assay Kit (ab108833)



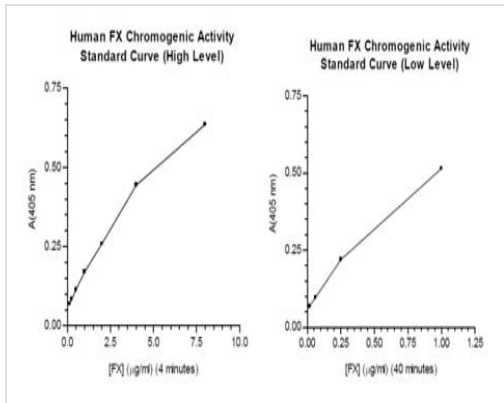
Standard curve: mean of duplicates (+/- SD) with background reads subtracted

Functional Studies - Factor X Human Chromogenic Activity Assay Kit (ab108833)



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

Functional Studies - Factor X Human Chromogenic Activity Assay Kit (ab108833)



Functional Studies - Factor X Human Chromogenic Activity Assay Kit - 1 x 96 wells plate (ab108833)

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