abcam

Product datasheet

Tissue type Plasminogen Activator Activity Assay Kit (Colorimetric, Human) ab108905

★★★★★ 1 Abreviews 8 References 画像数 6

製品の概要

製品名	Tissue type Plasminogen Activator Activity Assay Kit (Colorimetric, Human)
検出方法	Colorimetric
サンプルの種類	Cell culture supernatant, Serum, Plasma
アッセイタイプ	Enzyme activity (quantitative)
検出感度	0.13 IU/ml
検出範囲	0.039 IU/ml - 40 IU/ml
全工程の試験時間	1h 00m
種交差性	**交差種:** Human
製品の概要	Tissue type Plasminogen Activator Activity Assay Kit (Colorimetric, Human) ab108905 is used to measure Human Tissue type Plasminogen Activator activity in cell culture supernatants and plasma. The tPA assay protocol measures the ability of Tissue type Plasminogen Activator to activate the plasminogen to plasmin in coupled or indirect assays that contain Tissue type Plasminogen Activator, plasminogen, and a plasmin-specific synthetic substrate. The amount of plasmin produced is quantitated using a highly specific plasmin substrate releasing a yellow para-nitroaniline (pNA) chromophore. The change in absorbance of the pNA in the reaction solution at 405 nm is directly proportional to the Tissue type Plasminogen Activator enzymatic activity. **The entire kit may be stored at -20°C for long term storage before reconstitution - Avoid repeated freeze-thaw cycles.**
特記事項	Previously called Tissue type Plasminogen Activator Human Chromogenic Activity Assay Kit. Tissue type Plasminogen Activator (tPA) is a 68 kDa serine protease that converts the zymogen plasminogen into the active serine protease plasmin which digests fibrin and induces the dissolution of fibrin clots. Tissue type Plasminogen Activator is synthesized by endothelial cells in normal blood vessels and displays relatively high affinity for fibrin, suggesting that it functions predominately in physiological thrombolysis in vivo.
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
1X Diluent	1 x 30ml
Human Plasminogen	3 vials
Microplate 1 96 well polystyrene microplate (12 strips of 8 wells)	1 unit
Plasmin Substrate	2 units
Sealing Tapes	3 units
Tissue type Plasminogen Activator Standard	1 unit

機能 Converts the abundant, but inactive, zymogen plasminogen to plasmin by hydrolyzing a single Arg-Val bond in plasminogen. By controlling plasmin-mediated proteolysis, it plays an important role in tissue remodeling and degradation, in cell migration and many other physiopathological events. Play a direct role in facilitating neuronal migration.

組織特異性 Synthesized in numerous tissues (including tumors) and secreted into most extracellular body fluids, such as plasma, uterine fluid, saliva, gingival crevicular fluid, tears, seminal fluid, and milk.

関連疾患 Note=Increased activity of TPA results in increased fibrinolysis of fibrin blood clots that is associated with excessive bleeding. Defective release of TPA results in hypofibrinolysis that can lead to thrombosis or embolism.

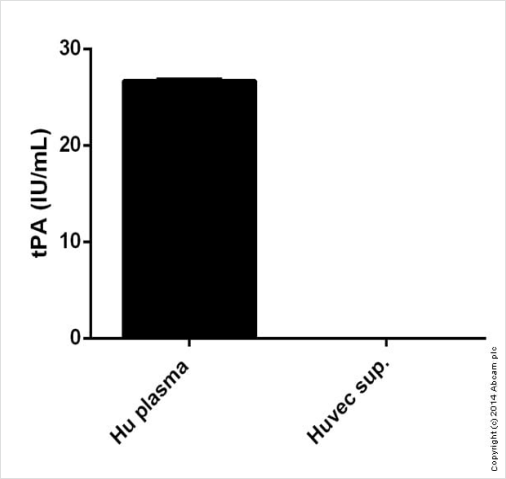
配列類似性 Belongs to the peptidase S1 family.
Contains 1 EGF-like domain.
Contains 1 fibronectin type-I domain.
Contains 2 kringle domains.
Contains 1 peptidase S1 domain.

ドメイン Both FN1 and one of the kringle domains are required for binding to fibrin.
Both FN1 and EGF-like domains are important for binding to LRP1.
The FN1 domain mediates binding to annexin A2.
The second kringle domain is implicated in binding to cytokeratin-8 and to the endothelial cell surface binding site.

翻訳後修飾 The single chain, almost fully active enzyme, can be further processed into a two-chain fully active form by a cleavage after Arg-310 catalyzed by plasmin, tissue kallikrein or factor Xa.
Differential cell-specific N-linked glycosylation gives rise to two glycoforms, type I (glycosylated at Asn-219) and type II (not glycosylated at Asn-219). The single chain type I glycoform is less readily converted into the two-chain form by plasmin, and the two-chain type I glycoform has a lower activity than the two-chain type II glycoform in the presence of fibrin.
N-glycosylation of Asn-152; the bound oligomannosidic glycan is involved in the interaction with the mannose receptor.
Characterization of O-linked glycan was studied in Bowes melanoma cell line.

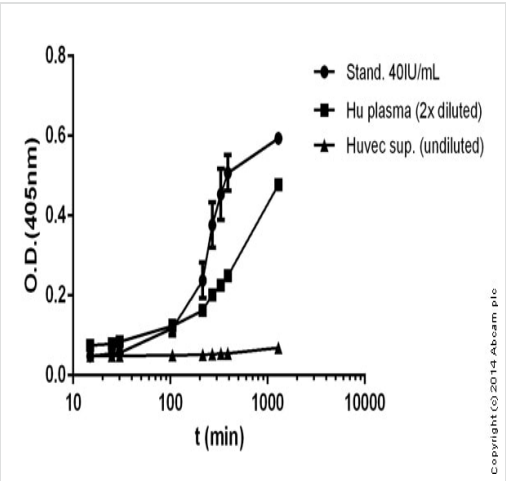
細胞内局在 Secreted > extracellular space.

画像



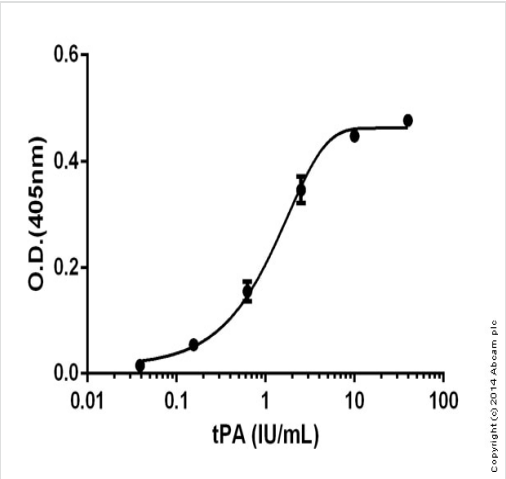
tPA measured in biological fluids showing activity (IU) per mL of tested sample

Functional Studies- Tissue Type Plasminogen Activator Human ELISA Kit (ab108905)



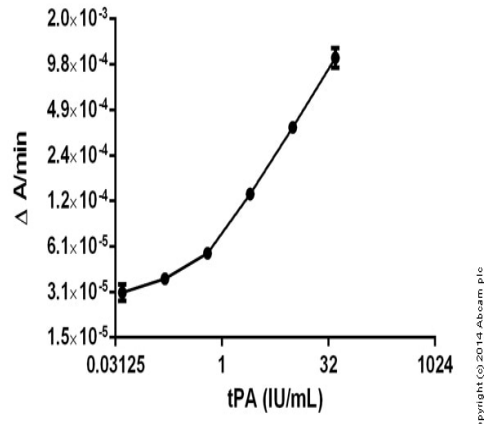
Time course of tPA measured in biological fluids showing optical densities

Functional Studies- Tissue Type Plasminogen Activator Human ELISA Kit (ab108905)



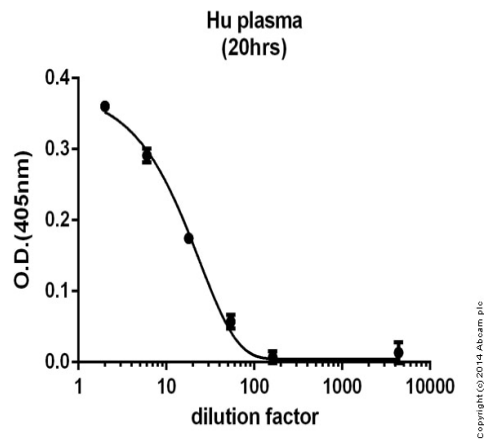
Standard curve (colorimetric) : mean of duplicates (+/-SD) with background readings subtracted

Functional Studies- Tissue Type Plasminogen Activator Human ELISA Kit (ab108905)



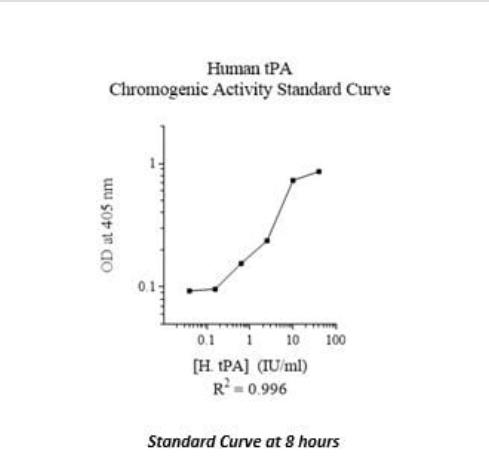
Change of absorbance per min. of various concentrations of tPA standard

Functional Studies- Tissue Type Plasminogen Activator Human ELISA Kit (ab108905)



O.D's of various dilutions of human plasma after 20hrs using ab108905

Functional Studies- Tissue Type Plasminogen Activator Human ELISA Kit (ab108905)



Tissue type Plasminogen Activator Chromogenic Activity Standard curve

Functional Studies - Tissue type Plasminogen Activator Human ELISA Kit (ab108905)

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