

tPA assay kit

Rat tPA EIA Active ELISA kit

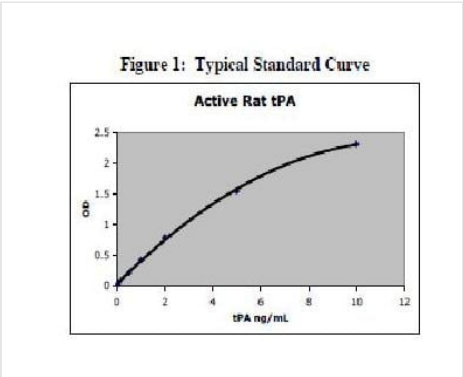
CATALOG #
AAA71826

PRODUCT SYNONYMS

tPA; Rat tPA EIA Active ELISA kit; Active Rat tPA Assay; tPA assay kit

PRODUCT SPECIFICATIONS

Sequence Length	19
Procedural Notes	1. This assay should be performed at room temperature. 2. Performance of the entire kit at once is not required. When performing this kit in part, please adhere to the following: - All unused components should be returned to storage at 4 degree C. - Desiccant bag must remain in foil pouch with unused strips. Keep pouch sealed when not in use to maintain a dry environment. Seal with a heat sealer. If a heat sealer is not available, thoroughly close the open end with tape. Try to remove excess air before sealing. - If not using the entire plate at once, then prepare only the required amount of reagents where appropriate. - tPA Standard and reconstituted biotinylated PAI-1 stock solutions must be stored at -70 degree C after initial use. 3. To minimize error due to handling, wipe the exterior bottom of the microplate wells with a lint-free paper towel.
Reagent Preparation	The following solutions should be prepared fresh before starting the assay. 1. TBS Buffer: Dilute the 10x TBS Buffer to 1x with deionized water and mix prior to use. 2. Blocking Buffer: 3% BSA in TBS Buffer. 3. Wash Buffer: Dilute the 10x Wash Buffer to 1x with deionized water and mix prior to use.
Sample Collection, Storage and Preparation	Samples should be collected using trisodium citrate, acidified citrate or Stabilitetm (DiaPharma) collection media. Collection should be in accordance with the collection vials manufacturers instructions or in a 1:10 ratio of collection media to blood. Immediately, upon collection of blood, the samples should be centrifuged at 3000 x g. This should ensure the removal of platelets as they can release PAI-1 that in turn complexes with uPA. The plasma can be transferred to a clean plastic tube and stored frozen for up to one month. Samples are stable for approximately 5 hours when stored at 4 degree C with the Sabilytetm media or up to one month when stored at -20C. Note: Detergents such as Triton X cause interference with the assay. If using detergent extracted samples, it is necessary to dialyze the samples overnight to remove the detergent.
Preparation and Storage	1. Store this kit and its components at 4 degree C until use. 2. Do not freeze.



Scheme I: Suggested Plate Layout

	1	2	3	4	5	6	7	8	9	10	11	12
A	S ₁₀	S ₉	S ₈	S ₇	S ₆	S ₅	S ₄	S ₃	S ₂	S ₁	B ₀	U ₁
B	S ₁₀	S ₉	S ₈	S ₇	S ₆	S ₅	S ₄	S ₃	S ₂	S ₁	B ₀	U ₁
C	U ₂	U ₃	U ₄	U ₅	U ₆	U ₇	U ₈	U ₉	U ₁₀	U ₁₁	U ₁₂	U ₁₃
D	U ₂	U ₃	U ₄	U ₅	U ₆	U ₇	U ₈	U ₉	U ₁₀	U ₁₁	U ₁₂	U ₁₃
E	U ₁₄	U ₁₅	U ₁₆	U ₁₇	U ₁₈	U ₁₉	U ₂₀	U ₂₁	U ₂₂	U ₂₃	U ₂₄	U ₂₅
F	U ₁₄	U ₁₅	U ₁₆	U ₁₇	U ₁₈	U ₁₉	U ₂₀	U ₂₁	U ₂₂	U ₂₃	U ₂₄	U ₂₅
G	U ₂₆	U ₂₇	U ₂₈	U ₂₉	U ₃₀	U ₃₁	U ₃₂	U ₃₃	U ₃₄	U ₃₅	U ₃₆	U ₃₇
H	U ₂₆	U ₂₇	U ₂₈	U ₂₉	U ₃₀	U ₃₁	U ₃₂	U ₃₃	U ₃₄	U ₃₅	U ₃₆	U ₃₇

Application Data

ADDITIONAL INFORMATION

Related Product Information for tPA assay kit	Introduction: Tissue-type Plasminogen Activator (tPA) is a member of the serine proteinase family. tPA functions to lyse fibrin clots into soluble plasmin fragments. tPA is active in two forms, single-chain and two-chain. The two-chain tPA is created via interaction with the plasmin product cleaving the single chain. This two-chain form is regarded as the more active form. Both single-chain and two-chain tPA are complexable with PAI-1. PAI-1 acts as an inhibitor for tPA by binding to the tPA and thus stifling its ability to lyse fibrin. tPA can serve as an indicator of both myocardial infarction for patients with impaired fibrinolytic systems as well as a marker for type-II diabetes. Principle of assay: This is an ELISA (Enzyme-Linked Immunosorbent Assay) for the quantitative analysis of active tPA levels in biological fluid. This test kit operates on the basis of sandwich ELISA where free, active, tPA enzyme complexes with PAI-1 and is quantified with the use of an HRP labeled secondary antibody. First the biotinylated PAI-1 binds to the avidin coated wells. Next, active tPA present in the standard or unknown, complexes with PAI-1. Inactive or complexed tPA is removed in a subsequent wash step. A primary antibody specific for tPA is then added to each well followed by the HRP conjugated secondary antibody. The bound conjugated secondary antibody is detected by the addition of substrate, which generates an optimal color after 10 minutes. Quantitative test results may be obtained by the measure and comparison of the sample and standard absorbance readings when read with a microplate reader at 450 nm.
References	1. Thogersen A et al. (1998) Circulation 98: 2241-2247 2. Eliasson M et al. (2003) Cardiovascular Diabetology 2:19

NCBI AND UNIPROT INFORMATION

NCBI GI #	2285954
NCBI GeneID	5327
UniProt Accession #	Q6LBF5; P00750
Molecular Weight	2,342 Da
NCBI Official Full Name	tPA, partial
NCBI Official Synonym Full Names	plasminogen activator, tissue
NCBI Official Symbol	PLAT
NCBI Official Synonym Symbols	TPA; T-PA
NCBI Protein Information	tissue-type plasminogen activator; alteplase; plasminogen activator, tissue type; plasminogen/activator kringle; reteplase; t-plasminogen activator; tissue plasminogen activator (t-PA)
UniProt Protein Name	TPA protein
UniProt Gene Name	tPA
UniProt Entry Name	Q6LBF5_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/assay-kits/tpa/71826>