APA525Mu01 100μg
Active Plasminogen Activator, Tissue (tPA)
Organism Species: *Homo sapiens* (Human)
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1th Edition (Apr, 2016)

[PROPERTIES]

Source: Prokaryotic expression.
Host: *E. coli*
Residues: Glu359~Leu532
Tags: N-terminal His-tag
Purity: >95%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: 20mM Tris, 150mM NaCl, pH8.0, containing 0.05% sarcosyl and 5% trehalose.
Applications: Cell culture; Activity Assays.
(May be suitable for use in other assays to be determined by the end user.)
Predicted isoelectric point: 5.5
Predicted Molecular Mass: 20.7kDa
Accurate Molecular Mass: 22kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

[STORAGE AND STABILITY]

Storage: Avoid repeated freeze/thaw cycles.
Store at 2-8°C for one month.
Aliquot and store at -80°C for 12 months.

Stability Test: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37ºC for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

[SEQUENCE]

ER FPPNHLKVVL GRTYRVVPGE EEQTFEIEKY IVHEEFDDDT YDNDIALLQL RSQSKQCAQE SSSVGTACLP DPNLQLPDWT ECELSGYGKH EASSPFFSDR LKEAHVRLYP SSRCTSQHLF NKTVTNNMLC AGDTRSGGNQ DLHDACQGDS GGPLVCMINK QMTLTGIISW GL

[ACTIVITY]

Plasminogen activators are serine proteases that catalyze the activation of plasmin via proteolytic cleavage of its zymogen form plasminogen. Plasmin is an important factor in fibrinolysis, the breakdown of fibrin polymers formed during blood clotting. There are two main plasminogen activators: urokinase (uPA) and tissue plasminogen activator (tPA).Tissue plasminogen activators (tPA) are used to treat medical conditions related to blood clotting including embolic or thrombotic stroke, myocardial infarction, and pulmonary embolism. Besides, Plasminogen Activator Inhibitor 1 (PAI1) has been identified as an interactor of tPA, thus a binding ELISA assay was conducted to detect the interaction of recombinant mouse tPA and recombinant mouse PAI1. Briefly, tPA were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to PAI1-coated microtiter wells and incubated for 2h at 37℃. Wells were washed with PBST and incubated for 1h with anti-tPA pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37℃. Finally, add 50μL stop solution to the wells and read at 450nm immediately. The binding activity of tPA and PAI1 was shown in Figure 1, and this effect was in a dose dependent manner.

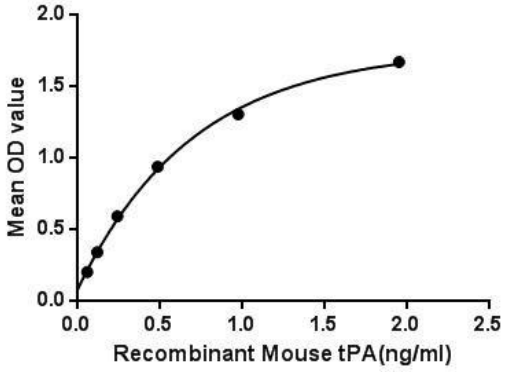

Figure 1. The binding activity of tPA with PAI1.

[IDENTIFICATION]

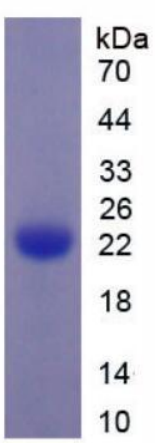

Figure 2. SDS-PAGE

Sample: Active recombinant tPA, Human

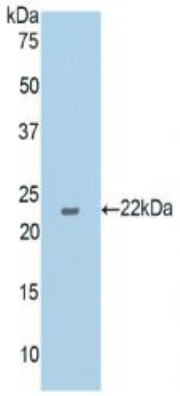

Figure 3. Western Blot

Sample: Recombinant tPA, Human;

Antibody: Rabbit Anti-Human tPA Ab (PAA525Mu01)

[IMPORTANT NOTE]

The kit is designed for in vitro and research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.