

Plasminogen Activator, Tissue (tPA) Active Protein | tPA active protein

Active Plasminogen Activator, Tissue (tPA)

CATALOG #
AAA149233

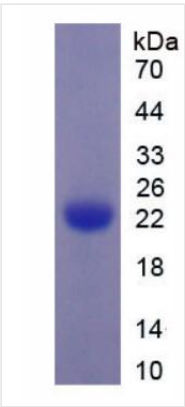
APPLICATIONS
Activity Assay, Cell Culture

PRODUCT SYNONYMS

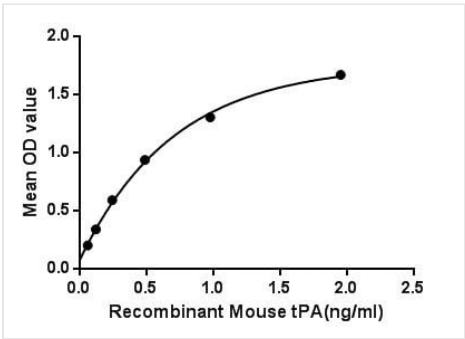
Plasminogen Activator; Tissue (tPA); Active Plasminogen Activator; PLAT; T-PA; t-plasminogen activator; Alteplase; Reteplase; tPA active protein

PRODUCT SPECIFICATIONS

Purity/Purification	> 95%
Form/Format	Freeze-Dried Powder; 20mM Tris, 150mM NaCl, pH8.0, Containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
Sequence Positions	Glu359~Leu532
Sequence Length	559
Applicable Applications for tPA active protein	Activity Assay, Cell Culture
Species	Mouse
Tag	N-terminal His-Tag
Isoelectric Point	5.5
Subcellular Location	Secreted, Extracellular Matrix
Reconstitution	Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
Preparation and Storage	Store at 2-8 degree C for one month. Aliquot and store at -80 degree C for 12 months. Avoid repeated freeze/thaw cycles. 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 37 degree C 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.



SDS-PAGE



Activity

Figure. The binding activity of tPA with PAI1. 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 degree C. 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 degree C. Finally, add 50uL 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.

ADDITIONAL INFORMATION

Product Categories/Family for tPA active protein	Metabolic pathway; Hematology
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NCBI AND UNIPROT INFORMATION

NCBI GI #	170763477
NCBI GeneID	18791
NCBI Accession #	NP_032898.2
NCBI GenBank Nucleotide #	NM_008872.3
UniProt Accession #	P11214
Molecular Weight	Predicted MW: 20.7kDa Accurate MW: 22kDa
NCBI Official Full Name	tissue-type plasminogen activator preproprotein
NCBI Official Synonym Full Names	plasminogen activator, tissue
NCBI Official Symbol	Plat
NCBI Official Synonym Symbols	tPA; AU020998; AW212668; D8Ert2e
NCBI Protein Information	tissue-type plasminogen activator
UniProt Protein Name	Tissue-type plasminogen activator
UniProt Gene Name	Plat
UniProt Synonym Gene Names	t-PA; t-plasminogen activator; tPA

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://www.aaabiotech.com/active-protein/plasminogen-activator-tissue-tpa/149233>