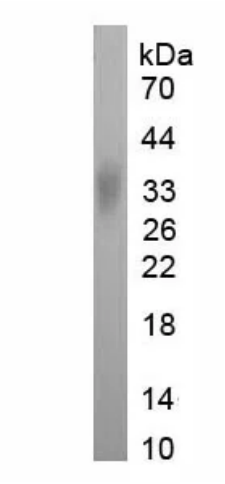
Active Tissue Plasminogen Activator (tPA)

Catalog#:PHH12383

概述（Summary）

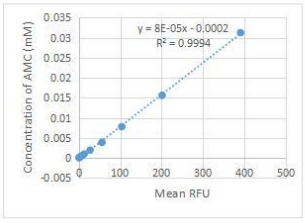
别称（Alternative Names）	PLAT; T-PA; t-plasminogen activator; Alteplase; Reteplase
纯度（Purity）	Greater than 95% as determined by reducing SDS-PAGE.
内毒素（Endotoxin level）	Please contact with the lab for this information
蛋白构建（Construction）	【Ile311-Pro562】
Accession #	P00750
表达宿主（Host）	293F
种属（Species）	Homo sapiens (Human)
预测分子量（Predicted MW）	29.7 kDa
制剂（Form）	Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
运输方式（Shipping）	The product is shipped with ice bag. Upon receipt, store it immediately at the temperature listed below.
稳定性&储存（Stability &Storage）	12 months at -20°C to -80°C in lyophilized state.6 months at -20°C to -80°C under sterile conditions after reconstitution.7-10 days at 2°C to 8°C under sterile conditions after reconstitution.Please minimize freeze-thaw cycles.
复溶（Reconstitution）	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
背景介绍（References）	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. During oocyte activation, plays a role in cortical granule reaction in the zona reaction, which contributes to the block to polyspermy.

电泳图（SDS-PAGE image）



Greater than 95% as determined by reducing SDS-PAGE.

活性图（Bioactivity image）



RFU	AMC (mM)
390.1509	0.03125
201.1509	0.015625
103.9509	0.0078125
56.0009	0.00390625
27.4709	0.001953125
13.1709	0.000976563
6.5189	0.000488281
3.0259	0.000244141
1.4129	0.00012207
0.7129	6.10352E-05

Figure 1. The standard curve of AMC

One unit of enzyme activity is defined as the 1 μg of enzyme required to convert 1 pmol of Z-GGR-AMC to AMC in 1min.

Specific Activity (pmol/min/μg)= $\frac{\Delta OD * F}{T * N}$

△OD=Adjusted for Substrate Blank

F=Conversion Factor (convert from standard curve of AMC)

T= Time

N=Amount of enzyme

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. The activity assay of tPA was measured by its ability to cleave a peptide substrate, N-carbobenzyloxy-Gly-Gly-Arg-7-amido-4-methylcoumarin (Z-GGR-AMC). The reaction was performed in 50 mM Tris, 0.01% Tween-20, pH 8.5 (Assay Buffer), ainitiated by addition 50 μL of various concentrations of tPA (diluted by Assay Buffer) to 50 μL of 200 uM Substrate. Read at excitation and emission wavelengths of 380 nm and 460 nm (top read), respectively, in kinetic mode for 5 minutes. The specific activity of recombinant human tPA is 10-60 pmol/min/μg.

注意事项（Note）

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