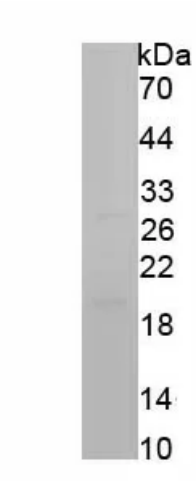
# Active Plasminogen Activator, Urokinase (uPA)

*Catalog#:PHM12251*

## 概述（Summary）

| | |
|---|---|
| **别称（Alternative Names）** | PLAU; ATF; URK; UK; UP-A; Abbokinase; Urokinase-Type Plasminogen Activator |
| **纯度（Purity）** | Greater than 90% as determined by reducing SDS-PAGE. |
| **内毒素（Endotoxin level）** | Please contact with the lab for this information |
| **蛋白构建（Construction）** | 【Gly21-Phe433】 |
| **Accession #** | P06869 |
| **表达宿主（Host）** | 293F |
| **种属（Species）** | Mus musculus (Mouse) |
| **预测分子量（Predicted MW）** | 48.3 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）** | Specifically cleaves the zymogen plasminogen to form the active enzyme plasmin. |

## 电泳图（SDS-PAGE image）




Greater than 90% as determined by reducing SDS-PAGE.

## 活性图（Bioactivity image）

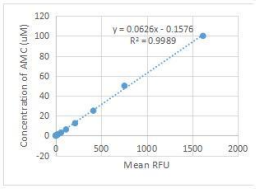



**Figure 1. The standard curve of AMC**

| RFU | AMC (uM) |
|---|---|
| 1616.7009 | 100 |
| 754.1009 | 50 |
| 413.2009 | 25 |
| 212.8009 | 12.5 |
| 113.8009 | 6.25 |
| 58.9809 | 3.125 |
| 27.7509 | 1.5625 |
| 14.9209 | 0.78125 |
| 7.9949 | 0.390625 |
| 3.7939 | 0.1953125 |
| 1.8779 | 0.09765625 |
| 0.9849 | 0.048828125 |
| 0.441 | 0.024414063 |

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

Urokinase Plasminogen Activator (uPA), also known as u-plasminogen activator or urokinase, is a highly-specific serine protease from the peptidase S1 family that cleaves plasminogen to form plasmin making it a key player in the plasminogen activator (PA) system. Expression of uPA is minimal in normal cells but is increased several fold in tumor cells by extracellular stimuli elevated in cancer and corresponds to poor outcomes in several types of cancer. Therefore, uPA has been identified as an excellent target for therapeutic development through inhibition of protease activity or though inhibition of uPA-dependent signaling while in complex with uPA receptor (uPAR). The activity assay of uPA 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 1.5 ug/ml uPA (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 mouse uPA is >2000 pmol/min/µg.

## 注意事项（Note）

For Research Use Only , Not for Diagnostic Use.