

PLAU/uPA Protein (active form), Human, Recombinant (His & Avi), Biotinylated

## General Information

Synonyms:	QPD;Urokinase;BDPLT5;UPA;ATF;URK;u-PA;PLAU
Protein Construction:	Ser21-Leu431, which consists of two chains: Long chain A (Ser21-Phe177) and chain B (Ile179-Leu 431). The long chain A is further cleaved to yield a short chain A (Lys156-Phe 177) and N-Terminus fragment (Ser21-Lys155).
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P00749-1
Molecular Weight:	49.3 kDa (predicted). Due to protein lysis and glycosylation, the protein migrates to 24-26 kDa(long chain A), 35-38 kDa(chain B) and 52-60 kDa(long chain A&chain B) based on Tris-Bis PAGE result.

## QC Testing

Biological Activity:	Immobilized Human uPAR, hFc Tag at 1µg/ml (100µl/well) on the plate. Dose response curve for Biotinylated Human PLAU, His Tag with the EC50 of 13.6ng/ml determined by ELISA.
Purity:	> 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC
Endotoxin:	< 1.0 EU/µg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 µm filter, containing PBS (pH 7.4). Typically, 8% trehalose is incorporated as a protective agent before lyophilization.

## Preparation and Storage

### Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 µg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

### Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

### Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

## Protein Background

Plasminogen activator, urokinase (uPA) is a secreted serine protease whose Dysregulation is often accompanied by various cancers. PLAU inhibition could suppress tumor growth. Collectively, PLAU is necessary for tumor

progression and can be a diagnostic and prognostic biomarker in HNSCC.

Reference

Chen G, et al. PLAU Promotes Cell Proliferation and Epithelial-Mesenchymal Transition in Head and Neck Squamous Cell Carcinoma. *Front Genet.* 2021 May 20;12:651882. doi: 10.3389/fgene.2021.651882. PMID: 34093649; PMCID: PMC8173099.

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