

Synonym

Urokinase,PLAU,ATF,UPA,URK,u-PA,BDPLT5,QPD

Source

Human PLAU, His Tag (activated by trypsin)(PLU-H5228) is expressed from human 293 cells (HEK293). It contains AA Ser 21 - Leu 431 (Accession # [P00749-1](#)).

Predicted N-terminus: Ser 21 & Lys156 & Ile179

Molecular Characterization

PLAU(Ser 21 - Leu 431)
P00749-1 Poly-his

This protein carries a polyhistidine tag at the C-terminus.

The active form of Human PLAU is a disulfide-linked heterodimer composed of long chain A (Ser 21 - Phe 177) and chain B (Ile 179 - Leu 431) with calculated MW of 17.8 kDa and 29.2 kDa. The long chain A is further cleaved to yield a short chain A (Lys 156 - Phe 177) and N-terminal fragment (Ser 21 - Lys 155) with calculated MW of 15.3 kDa. The protein migrates as 17 kDa (N-terminal fragment), 32-35 kDa (chain B) and 45-50 kDa (long chain A & chain B) under non-reducing (NR) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per µg by the LAL method.

Purity

>90% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 µm filtered solution in 25 mM HEPES, 150 mM NaCl, pH7.5 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

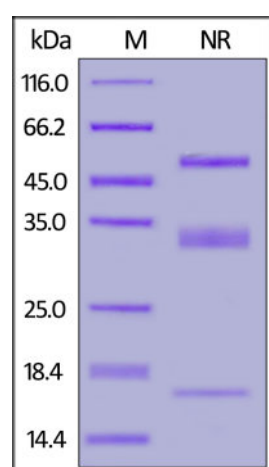
Storage

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE

Human PLAU, His Tag (activated by trypsin) on SDS-PAGE under non-reducing (NR) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

Bioactivity

Measured by its ability to cleave a peptide substrate, N-carbobenzyloxy-Gly-Gly-Arg-7-amido-4-methylcoumarin (Z-GGR-AMC). The specific activity is >2,000 pmol/min/µg, as measured under the described conditions (QC tested).

Background

Urokinase - type plasminogen activator is also known as PLAU and UPA, a serine protease with an extremely limited substrate specificity, cleaving the sequence Cys – Pro – Gly - Arg560 - Val561 – Val – Gly – Gly – Cys in plasminogen to form plasmin. uPA is a potent marker of invasion and metastasis in a variety of human cancers associated with breast, stomach, colon, bladder, ovary, brain and endometrium. uPA and its receptor (uPAR) have been implicated in a broad spectrum of pathophysiological processes, including fibrinolysis, proteolysis, inflammation, atherogenesis and plaque destabilization, all of which are involved in the pathogenesis of MI (myocardial infarction).

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.