cellsciences.com

PLAT
Recombinant Human tPA / PLAT, N-His tag

Catalog No.	YHB88401A YHB88401B	**Quantity:**	100 µg 1.0 mg

Alternate Names: Tissue-type plasminogen activator

Description: Tissue plasminogen activator is traditionally viewed as a simple serine protease whose main function is to convert plasminogen into biologically active plasmin. As a protease, tPA plays a crucial role in regulating blood fibrinolysis, in maintaining the homeostasis of extracellular matrix and in modulating the post-translational activation of growth factors. tPA is synthesized and secreted as a single chain polypeptide precursor which is cleaved in turn by plasmin. Proteolytic cleavage at the C-terminal side of Arg275 generates the enzyme composed of two subunits, designated as α and β chains which are held together by a single disulfide bond. Unlike the other members of the chymotrypsin family, tPA has one particular distinction in that the catalytic efficiency of the single-chain enzyme is only slightly lower than that of the proteolytically cleaved form and is therefore not a true zymogen. tPA is found not only in the blood, where its primary function is as a thrombolytic enzyme, but also in the central nervous system (CNS). It participats in a number of physiological and pathological events in the CNS, as well as the role of neuroserpin as the natural regulator of tPA's activity in these processes. Increased or decreased activity of tPA leads to hyperfibrinolysis or hypofibrinolysis, respectively. In addition, as a cytokine, tPA plays a pivotal role in the pathogenesis of renal interstitial fibrosis through diverse mechanisms. Thus, as a fibrogenic cytokine, it promotes the progression of kidney diseases.

UniProt ID: P00750

Source: E. coli

Molecular Weight: 12.78 kDa

Protein Construction: A DNA sequence encoding the human PLAT (Ser36-Thr126) was fused with a N-terminal His tag

Formulation: Lyophilized from PBS pH 7.4, 0.02% NLS, 1mM EDTA, 4% Trehalose, 1% Mannitol

Purity: > 90% as determined by SDS-PAGE

Reconstitution: **Centrifuge vial prior to opening.** Add sterile distilled water to a concentration of 0.1 -1.0 mg/mL and gently pipette the solution up and down the sides of the vial. **DO NOT VORTEX**. Allow several minutes for complete reconstitution.

Storage & Stability: Store as supplied at -20°C to -80°C for up to 1 year. Upon reconstitution, prepare working aliquots and store at -20°C to -80°C for up to 3 months. **Avoid repeated freeze-thaw cycles.**

Cell Sciences®
65 Parker Street
Unit 11
Newburyport, MA 01950

Toll Free: 888-769-1246
Phone: 978-572-1070
Fax: 978-992-0298

E-mail: info@cellsciences.com
Website: www.cellsciences.com