

Recombinant Human tPA/PLAT Protein (His Tag)

Catalog No. PKSH033120

Note: Centrifuge before opening to ensure complete recovery of vial contents.

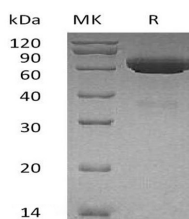
Description

Synonyms	T-PA;TPA;t-plasminogen activator;Tissue plasminogen activator;
Species	Human
Expression Host	HEK293 Cells
Sequence	Ser36-Pro562
Accession	P00750
Calculated Molecular Weight	60.1 kDa
Observed molecular weight	55-80 kDa
Tag	C-His
Bioactivity	Not validated for activity

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 µm filtered solution of 20mM Succinate, 4% Trehalose, 4% Mannitol, 0.2mM CaCl ₂ , 0.02% Tween 80, pH 4.5. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 95 % as determined by reducing SDS-PAGE.

Background

Tissue-type plasminogen activator (PLAT) is a protein that secreted into extracellular space. PLAT contains five domains:

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EGF-like domain, fibronectin type-I domain, 2 kringle domains and peptidase S1 domain. It belongs to the peptidase S1 family. The main function of this protein is to convert plasminogen into biologically active plasmin. As a protease, PLAT plays a crucial role in regulating blood fibrinolysis, maintaining the homeostasis of extracellular matrix and in modulating the post-translational activation of growth factors. PLAT 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 participates in a number of physiological and pathological events in the CNS, as well as the role of neuroserpin as the natural regulator of PLAT's activity in these processes. Increased or decreased activity of PLAT leads to hyperfibrinolysis or hypofibrinolysis, respectively. In addition, as a cytokine, PLAT 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.