

Product datasheet for **TP727979**

PLAT Human Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant Human Tissue-Type Plasminogen Activator/PLAT (C-6His)
Species:	Human
Expression cDNA Clone or AA Sequence:	Ser36-Pro562
Tag:	C-His
Buffer:	Lyophilized from a 0.2 um filtered solution of 20mMMES,150mMNaCl,5%trehalose,0.2mM CaCl_2 ,pH5.5.
Note:	Recombinant Human Tissue-type plasminogen activator is produced by our Mammalian expression system and the target gene encoding Ser36-Pro562 is expressed with a 6His tag at the C-terminus.
Storage:	Lyophilized protein should be stored at $< -20^{\circ}\text{C}$, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at $4-7^{\circ}\text{C}$ for 2-7 days. Aliquots of reconstituted samples are stable at $< -20^{\circ}\text{C}$ for 3 months.
Stability:	12 months from date of despatch
Locus ID:	5327
UniProt ID:	<u>P00750</u>
Synonyms:	T-PA; TPA; t-plasminogen activator; Tissue plasminogen activator



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Summary:

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

Protein Families:

Druggable Genome, Protease, Secreted Protein

Protein Pathways:

Complement and coagulation cascades