

# Recombinant Human Plasminogen Activator, Tissue

**Cat. No.** PLAT-55H    **Lot. No.** (See product label)

## SPECIFICATION

**Product Overview**      Recombinant Human Tissue Plasminogen Activator produced in *CHO* cells is a single, glycosylated polypeptide chain containing 527 amino acids and having a molecular mass of 59008.71 Dalton. TPA is a serine protease enzyme that converts plasminogen to plasmin. The tPA is purified by proprietary chromatographic techniques.

**Species**      Human

**Source**      CHO

**Description**      Tissue plasminogen activator (abbreviated PLAT or tPA) is a secreted serine protease which converts the proenzyme plasminogen to plasmin, a fibrinolytic enzyme. Plasminogen is synthesized as a single chain which is cleaved by PLAT into the two chain disulfide linked plasmin. This enzyme plays a role in cell migration and tissue remodeling. Increased enzymatic activity causes hyperfibrinolysis, which manifests as excessive bleeding; decreased activity leads to hypofibrinolysis which can result in thrombosis or embolism.

**Physical Appearance**      Sterile Filtered White lyophilized (freeze-dried) powder.

**Purity**      Greater than 98.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.

**Formulation**      Each mg of Alteplase contains 1.7 gr L-arginine, 0.5 gr phosphoric acid and 4 mg tween 80.

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<b>Solubility</b>	It is recommended to reconstitute the lyophilized t-PA in sterile 18 MΩ-cm H <sub>2</sub> O not less than 100 g/ml, which can then be further diluted to other aqueous solutions.
<b>Enzymatic Activity</b>	580,000 IU/mg.
<b>Stability</b>	Lyophilized Reteplase although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution tPA should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

## GENE INFORMATION

<b>Gene Name</b>	PLAT plasminogen activator, tissue [ Homo sapiens ]
<b>Synonyms</b>	PLAT; plasminogen activator, tissue; TPA; T-PA; DKFZp686l03148; Tissue-type plasminogen activator; t-plasminogen activator; t-PA; tPA; INNAIteplase; INNRepteplase; Tissue-type plasminogen activator chain A; Tissue-type plasminogen activator chain B; Alteplase; EC 3.4.21.68; Reteplase; alteplase; reteplase; plasminogen activator, tissue type; tissue plasminogen activator (t-PA)
<b>Gene ID</b>	5327
<b>mRNA Refseq</b>	NM_000930
<b>Protein Refseq</b>	NP_000921
<b>MIM</b>	173370
<b>UniProt ID</b>	P00750

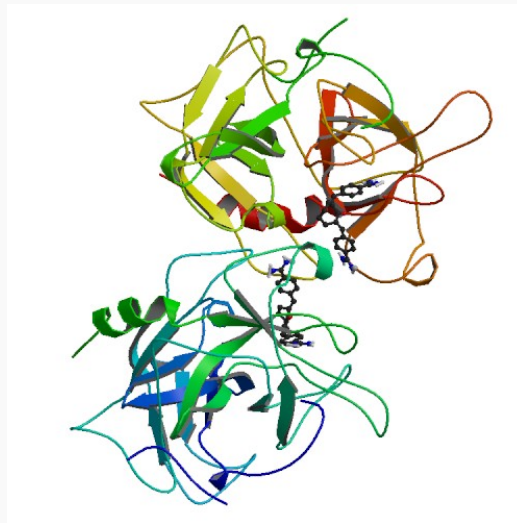
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<b>Chromosome Location</b>	8p12
<b>Pathway</b>	Complement and coagulation cascades; Hemostasis; Signaling by PDGF
<b>Function</b>	peptidase activity; serine-type endopeptidase activity

PDB rendering based on 1a5h.



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