

Product Data Sheet

□ Cat # RP-355

Recombinant Human Tissue Plasminogen Activator

Size: □ 20 ug

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 hyper fibrinolysis, which manifests as excessive bleeding; decreased activity leads to hypo fibrinolysis which can result in thrombosis or embolism.

Synonyms: Tissue-type plasminogen activator, EC 3.4.21.68, tPA, t-PA, t-plasminogen activator, TPA, T-PA, DKFZp686I03148.

Source: Tissue Plasminogen Activator Human Recombinant produced in CHO cells is a single, glycosylated polypeptide chain containing 527 amino acids and having a molecular mass of 59 kda. tPA is a serine protease enzyme that converts plasminogen to plasmin. The tPA is purified by proprietary chromatographic techniques (>98%). Each mg of Alteplase contains 1.7 gr L-arginine, 0.5 gr phosphoric acid and 4 mg tween 80.

Applications and Suggested Dilutions: It is recommended to reconstitute the lyophilized t-PA in distilled H₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions. Greater than 98.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE. Users must optimize the appropriate concentration and conditions for each assay.

Storage and Stability: 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.** If supplied in powder then reconstitute it in 100 ul water for 1 mg/ml stock and store in liquid at 4°C for ~1 week or aliquots in suitable size and store at -20°C for long term storage.

Enzymatic Activity:

580,000 IU/mg.

References: Bode W (1998) Curr. Opin. Struct. Biol. 7, 865-872; Collen D (1977) BBA 499, 194-201; Teesalu T (2002) Biochem. Soc. Trans. 30, 183-189

Usage:

This item is for LABORATORY RESEARCH USE ONLY.

Related Items

Catalog# ProdDescription

PAI21-A Anti-Human Plasminogen Activator Inhibitor 1 (PAI-1) IgG, pure

PAI21-C Recombinant purified Human Plasminogen Activator Inhibitor 1 (PAI-1) protein (his-tag) control for Western blot

PAI21-R-25 Recombinant purified Human Plasminogen Activator Inhibitor 1 (PAI-1) protein (his-tag) control for ELISA

PAI22-M Monoclonal Anti-Human Plasminogen Activator Inhibitor 1 (PAI-1) IgG, pure

PLMN11-C Purified Human Plasminogen protein W. Blot Positive control

PLMN11-M Monoclonal Anti-Human Plasminogen protein IgG

PLMN12-A Anti-Human plasminogen protein IgG, aff pure, unlabeled

PLMN12-BT Anti-Human plasminogen protein IgG, Biotin conjugate

PLMN12-HRP Anti-Human plasminogen protein IgG, HRP conjugate

PLMN15-N Purified Human Plasminogen protein biologically active

RP-1471 Human Plasminogen Activator Inhibitor-1

RP-1472 Recombinant Human Plasminogen Activator Inhibitor-1

RP-355 Recombinant Human Tissue Plasminogen Activator

SP-55196-1 Plasminogen Activator Inhibitor 1 (PAI-1), hexapeptide, Human

RP-355 140326A