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Datasheet for ABIN7197374

PLAT Protein

Overview

Quantity:	20 µg
Target:	PLAT
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant

Product Details

Purpose:	Recombinant Human tPA/PLAT Protein
Sequence:	Ile 311-Pro 562
Characteristics:	The β chain (Ile 311-Pro 562) of mature human tPA (NP_000921.1) was obtained after cleavage of the N-terminal human IgG1 Fc region from the purified chimera.
Purity:	> 95 % as determined by reducing SDS-PAGE.
Endotoxin Level:	< 1.0 EU per µg as determined by the LAL method.

Target Details

Target:	PLAT
Alternative Name:	tPA/PLAT (PLAT Products)
Background:	Background: Tissue plasminogen activator (abbreviated tPA or PLAT), 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

Target Details

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 participates 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.

Synonym: T-PA; TPA; t-plasminogen activator; Tissue plasminogen activator;

Molecular Weight: 28 kDa

NCBI Accession: [NP_000921](#)

Pathways: [Autophagy](#), [Smooth Muscle Cell Migration](#), [Platelet-derived growth Factor Receptor Signaling](#), [SARS-CoV-2 Protein Interactome](#)

Application Details

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: Please refer to the printed manual for detailed information.

Buffer: Lyophilized from sterile 100 mM Glycine, 10 mM NaCl, 50 mM Tris, pH 7.5

Storage: 4 °C, -20 °C, -80 °C

Storage Comment: 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.