

Product datasheet

Recombinant Mouse Tissue Plasminogen Activator (mutated S481A) protein ab92723

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Description

Product name	Recombinant Mouse Tissue Plasminogen Activator (mutated S481A) protein
Purity	> 95 % SDS-PAGE. ab92723 is not sterile and should be passed through a 0.22 micron filter before use in cell culture. It is > 98% pure by SDS PAGE and > 90% single chain.
Expression system	Insect cells
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Mouse
Modifications	mutated S481

Specifications

Our **Abpromise guarantee** covers the use of **ab92723** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	SDS-PAGE
Form	Liquid
Additional notes	<p>ab92723 is a single chain Mouse TPA Tissue Plasminogen Activator which has the active site serine mutated to alanine rendering the enzyme catalytically inactive. The TPA Tissue Plasminogen Activator still retains exosite binding as well as other biological properties of TPA Tissue Plasminogen Activator including but not limited to surface binding to fibrin.</p> <p>Produced using non-baculovirus insect cells.</p>

Preparation and Storage

Stability and Storage	<p>Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles.</p> <p>pH: 7.40</p> <p>Constituents: 9.52% HEPES, 0.58% Sodium chloride</p>
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General Info

Function	Converts the abundant, but inactive, zymogen plasminogen to plasmin by hydrolyzing a single Arg-Val bond in plasminogen. By controlling plasmin-mediated proteolysis, it plays an important role in tissue remodeling and degradation, in cell migration and many other physiopathological events. Play a direct role in facilitating neuronal migration.
Tissue specificity	Synthesized in numerous tissues (including tumors) and secreted into most extracellular body fluids, such as plasma, uterine fluid, saliva, gingival crevicular fluid, tears, seminal fluid, and milk.
Involvement in disease	Note=Increased activity of TPA results in increased fibrinolysis of fibrin blood clots that is associated with excessive bleeding. Defective release of TPA results in hypofibrinolysis that can lead to thrombosis or embolism.
Sequence similarities	Belongs to the peptidase S1 family. Contains 1 EGF-like domain. Contains 1 fibronectin type-I domain. Contains 2 kringle domains. Contains 1 peptidase S1 domain.
Domain	Both FN1 and one of the kringle domains are required for binding to fibrin. Both FN1 and EGF-like domains are important for binding to LRP1. The FN1 domain mediates binding to annexin A2. The second kringle domain is implicated in binding to cytokeratin-8 and to the endothelial cell surface binding site.
Post-translational modifications	The single chain, almost fully active enzyme, can be further processed into a two-chain fully active form by a cleavage after Arg-310 catalyzed by plasmin, tissue kallikrein or factor Xa. Differential cell-specific N-linked glycosylation gives rise to two glycoforms, type I (glycosylated at Asn-219) and type II (not glycosylated at Asn-219). The single chain type I glycoform is less readily converted into the two-chain form by plasmin, and the two-chain type I glycoform has a lower activity than the two-chain type II glycoform in the presence of fibrin. N-glycosylation of Asn-152; the bound oligomannosidic glycan is involved in the interaction with the mannose receptor. Characterization of O-linked glycan was studied in Bowes melanoma cell line.
Cellular localization	Secreted > extracellular space.

Images



10% SDS-PAGE showing ab92723

Lane 1 ab92723 (3µg) Non-reduced

Lane 2 ab92723 (3µg) + PAI-1 (stable mutant form) (10µg) Non-reduced

Lane 3 ab92723 (3µg) Reduced

Lane 4 ab92723 (3µg) + PAI-1 (stable mutant form) (10µg) Reduced

Lane 5 Prestained standard

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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