

Recombinant human Tissue Plasminogen Activator protein (Active) ab92633

1 Image

Description

Product name	Recombinant human Tissue Plasminogen Activator protein (Active)		
Biological activity	Specific activity: 593,600 IU/mg (Relative to WHO International Standard for Human Recombinant Tissue Plasminogen Activator, NIBSC 98/714).		
Purity	> 95 % SDS-PAGE.		
Expression system	CHO cells		
Accession	<u>P00750</u>		
Protein length	Full length protein		
Animal free	No		
Nature	Recombinant		
Species	Human		
Sequence	MDAMKRGLCC VLLLCGAVFV SPSQEIHARF RRGARSYQVI CRDEKTQMIY QQHQSWLRPV LRSNRVEYCW CNSGRAQCHS VPKSCSEPR CFNGGTCQQA LYFSDFVCQC PEGFAGKCCE IDTRATCYED QGISYRGTWS TAESGAECTN WNSSALAQKP YSGRRPDAIR LGLGNHNYCR NPDRDSKPWC YVFKAGKYSS EFCSTPACSE GNSDCYFGNG SAYRGTHSLT ESGASCLPWN SMILIGVYT AQNPSAQUALG LGKHNYCRNP DGDAPWCHV LKNRRLTWEY CDVPSCSTCG LRQYSQPQFR IKGGLFADIA SHPWQAAIFA KHRRSPGERF LCGGILISSC WILSAAHCFQ ERFPPHHLTV ILGRTYRVVP GEEEQKFEVE KYVHKEFDD DTYDNDIALL QLKSDSSRCA QESSVVRTVC LPPADLQLPD WTECELSGYG KHEALSPFYS ERLKEAHVRL YPSSRCTSQH LLNRTVTDNM LCAGDTRSGG PQANLHDACQ GDSGGPLVCL NDGRMTLVGI ISWGLGCGQK DVPGVYTKVT NYLDWIRDNM RP		
Predicted molecular weight	70 kDa		

Amino acids 1 to 562

Additional sequence information Gene ID: 5327

Specifications

Our **Abpromise guarantee** covers the use of **ab92633** in the following tested applications.

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

Applications	Functional Studies
	SDS-PAGE
Form	Liquid
Additional notes	Human tissue-type plasminogen activator (tPA) is a 527 amino acid glycoprotein. Synthesized from cDNA from a human melanoma cell line.
	>85% single chain.
	Extinction coefficient: 1.9
	Ultraviolet Absorbance (280nm) = 6.27
	Fully complexable with human PAI-1.

Preparation and Storage

Stability and Storage	Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles.
	pH: 7.40
	Constituents: 9.52% HEPES, 0.58% Sodium chloride
	This product is an active protein and may elicit a biological response in vivo, handle with caution.

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

Post-translational modifications

surface binding site.

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.

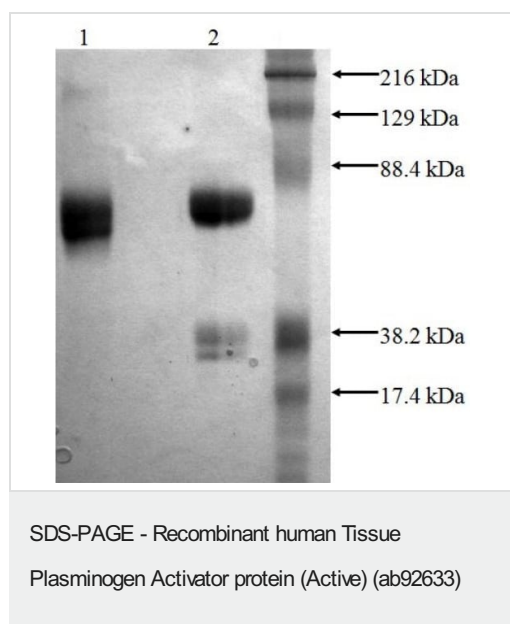
N-glycosylation of Asn-152; the bound oligomannosidic glycan is involved in the interaction with the mannose receptor.

Characterization of O-linked glycan was studied in Bowes melanoma cell line.

Cellular localization

Secreted > extracellular space.

Images



3 ug of ab92633 on SDS-PAGE.

Lane 1: Non-reducing.

Lane 2: Reducing.

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

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