

Product datasheet

info@arigobio.com

ARG40849 anti-tPA antibody

Package: 50 μg Store at: -20°C

Summary

Product Description Rabbit Polyclonal antibody recognizes tPA

Tested Reactivity Hu, Ms, Rat

Tested Application FACS, IHC-P, WB

Host Rabbit

Clonality Polyclonal

Isotype IgG

Target Name tPA

Species Human

Immunogen Synthetic peptide corresponding to a sequence of Human tPA. (QKDVPGVYTKVTNYLDWIRDNMRP)

Conjugation Un-conjugated

Alternate Names TPA; tPA; t-PA; t-plasminogen activator; t-PA; Tissue-type plasminogen activator; EC 3.4.21.68;

Reteplase; Alteplase

Application Instructions

Application table	Application	Dilution
	FACS	1 - 3 μg/10^6 cells
	IHC-P	1:200 - 1:1000
	WB	1:500 - 1:2000
Application Note	IHC-P: Antigen Retrieval: Heat mediation was performed in Citrate buffer (pH 6.0, epitope retrieval solution) for 20 min. * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

Properties

Form Liquid

Purification Affinity purification with immunogen.

Buffer 0.2% Na2HPO4, 0.9% NaCl, 0.05% Sodium azide and 4% Trehalose.

Preservative 0.05% Sodium azide

Stabilizer 4% Trehalose

Concentration 0.5 mg/ml

Storage instruction For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot

and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed

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For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol

PLAT

Gene Full Name

plasminogen activator, tissue

Background

This gene encodes tissue-type plasminogen activator, a secreted serine protease which converts the proenzyme plasminogen to plasmin, a fibrinolytic enzyme. Tissue-type plasminogen activator is synthesized as a single chain which is cleaved by plasmin to a two chain disulfide linked protein. 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. Alternative splicing of this gene results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Jul 2008]

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. Plays a direct role in facilitating neuronal migration. [UniProt]

Calculated Mw

63 kDa

PTM

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.

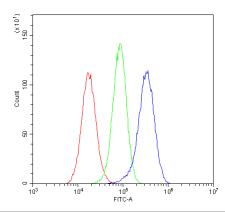
N-glycosylation of Asn-152; the bound oligomannosidic glycan is involved in the interaction with the mannose receptor.

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

Cellular Localization

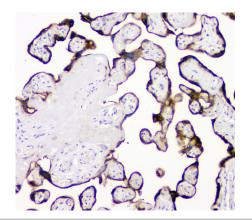
Secreted, extracellular space. [UniProt]

Images



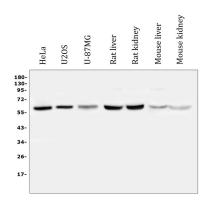
ARG40849 anti-tPA antibody FACS image

Flow Cytometry: U251 cells were blocked with 10% normal goat serum and stained with ARG40849 anti-tPA antibody (blue) at 1 $\mu g/10^6$ cells for 30 min at 20°C, followed by incubation with DyLight®488 labelled secondary antibody. Isotype control antibody (green) was Rabbit IgG (1 $\mu g/10^6$ cells) used under the same conditions. Unlabelled sample (red) was also used as a control.



ARG40849 anti-tPA antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human placenta tissue. Antigen Retrieval: Heat mediation was performed in Citrate buffer (pH 6.0, epitope retrieval solution) for 20 min. The tissue section was blocked with 10% goat serum. The tissue section was then stained with ARG40849 anti-tPA antibody at 1 $\mu g/ml$, overnight at 4°C.



ARG40849 anti-tPA antibody WB image

Western blot: 50 μg of samples under reducing conditions. HeLa, U2OS, U-87MG, Rat liver, Rat kidney, Mouse liver and Mouse kidney lysates stained with ARG40849 anti-tPA antibody at 0.5 $\mu g/ml$, overnight at 4°C.