

Rabbit PLAT Polyclonal Antibody | anti-PLAT antibody

PLAT Antibody

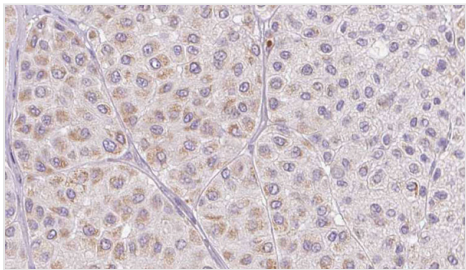
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA327140	Rabbit	Human, Mouse, Rat	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

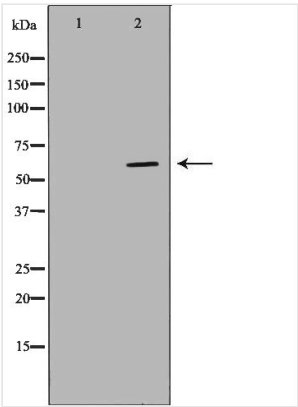
PLAT; Polyclonal Antibody; PLAT Antibody; Alteplase; DKFZp686I03148; Plasminogen activator tissue; Plasminogen activator tissue type; Reteplase; t PA; T Plasminogen Activator; t-PA; T-plasminogen activator; Tissue plasminogen activator (t PA); Tissue type plasminogen activator; Tissue-type plasminogen activator chain B; tPA; TPA_HUMAN; TPA1; anti-PLAT antibody

PRODUCT SPECIFICATIONS

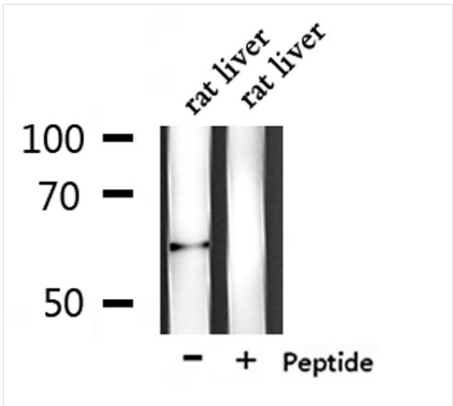
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	PLAT antibody detects endogenous levels of total PLAT
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	562
Applicable Applications for anti-PLAT antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human PLAT
Subcellular Location	Secreted > Extracellular Space.
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.
Predicted Cross Reactivity	Pig, Bovine, Horse, Sheep, Rabbit, Dog, Chicken, Xenopus
Similarity	Pig (100%), Bovine (100%), Horse (91%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (82%), Xenopus (82%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



IHC (Immunohistochemisry)
AAA327140 at 1/100 staining Human melanoma tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



WB (Western Blot)
Western blot analysis of 293T whole cell lysates, using PLAT Antibody. The lane on the left is treated with the antigen-specific peptide.



WB (Western Blot)
Western blot analysis of extracts from rat liver, using PLAT Antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-PLAT antibody	Description: 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. 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. Subunit Structure: Heterodimer of chain A and chain B held by a disulfide bond. Forms a heterodimer with SERPINA5. Binds to fibrin with high affinity. This interaction leads to an increase in the catalytic efficiency of the enzyme between 100-fold and 1000-fold, due to an increase in affinity for plasminogen. Similarly, binding to heparin increases the activation of plasminogen. Binds to annexin A2, cytokeratin-8, fibronectin and laminin. Binds to mannose receptor and the low-density lipoprotein receptor-related protein (LRP1); these proteins are involved in TPA clearance. Yet unidentified interactions on endothelial cells and vascular smooth muscle cells (VSMC) lead to a 100-fold stimulation of plasminogen activation. In addition, binding to VSMC reduces TPA inhibition by PAI-1 by 30-fold. Binds LRP1B; binding is followed by internalization and degradation. 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. Similarity: 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. Belongs to the peptidase S1 family.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	4505861
NCBI GeneID	5327
NCBI Accession #	NP_000921.1
NCBI GenBank Nucleotide #	NM_000930.4
UniProt Accession #	P00750 ; Q15103 ; Q503B0 ; Q6PJA5 ; Q7Z7N2 ; Q86YK8 ; Q9BU99 ; Q9BZW1 ; A8K022 ; B2R8E8
Molecular Weight	Observed: 62 kDa Predicted: 63 kDa
NCBI Official Full Name	tissue-type plasminogen activator isoform 1 preproprotein
NCBI Official Synonym Full Names	plasminogen activator, tissue type
NCBI Official Symbol	PLAT
NCBI Official Synonym Symbols	TPA; T-PA
NCBI Protein Information	tissue-type plasminogen activator
UniProt Protein Name	Tissue-type plasminogen activator
UniProt Gene Name	PLAT
UniProt Synonym Gene Names	t-PA; t-plasminogen activator; tPA

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

