abcam

ab7335

Biotin Anti-Plasminogen antibody

Anti-Plasminogen antibody conjugated to Biotin is a goat polyclonal antibody suitable for ELISA, flow cytometry, ICC/IF, Western blot, and reacts with human samples.

Key facts

Isotype	IgG
Host species	Goat
Conjugation	Biotin
Storage buffer	Preservative: 0.01% Sodium azide Constituents: 1% BSA, 0.88% Sodium chloride, 0.424% Potassium phosphate solution
Form	Liquid
Clonality	Polyclonal
Immunogen	Native Full Length Protein corresponding to Human PLG. Database link P00747
Purification technique	Ion exchange chromatography
Purification notes	Anti-Plasminogen antibody is an IgG fraction antibody purified from monospecific antiserum by a multi-step process which includes delipidation, salt fractionation and ion exchange chromatography followed by extensive dialysis against the buffer.

Reactivity data

Flow Cyt

Expected

Species	Human
Dilution info	-

Notes	ab37376 - Goat polyclonal IgG, is suitable for use as an isotype control with this antibody.

ELISA

Expected

Species	Human
Dilution info	1/20000 - 1/100000
Notes	As well as other antibody based assays using streptavidin or avidin conjugates requiring lot-to-lot consistency.

WB

Expected

Species	Human
Dilution info	1/2000 - 1/10000
Notes	-

ICC/IF

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information PLG

Function	Plasmin dissolves the fibrin of blood clots and acts as a proteolytic factor in a variety of other processes including embryonic development, tissue remodeling, tumor invasion, and inflammation. In ovulation, weakens the walls of the Graafian follicle. It activates the urokinase-type plasminogen activator, collagenases and several complement zymogens, such as C1, C4 and C5 (PubMed:6447255). Cleavage of fibronectin and laminin leads to cell detachment and apoptosis. Also cleaves fibrin, thrombospondin and von Willebrand factor. Its role in tissue remodeling and tumor invasion may be modulated by CSPG4. Binds to cells. Angiostatin is an angiogenesis inhibitor that blocks neovascularization and growth

of experimental primary and metastatic tumors in vivo. (Microbial infection) ENO/enoloase from parasite P.falciparum (strain NF54) interacts with PLG present in the mosquito blood meal to promote the invasion of the mosquito midgut by the parasite ookinete (PubMed:21949403). The catalytic active form, plasmin, is essential for the invasion of the mosquito midgut (PubMed:21949403). (Microbial infection) Binds to OspC on the surface of B.burgdorferi cells, possibly conferring an extracellular protease activity on the bacteria that allows it to traverse host tissue. (Microbial infection) Interacts with dengue virus type 2 particles (PubMed:31726374). Enhances dengue virus type 2 infection in Aedes aegypti mosquito midgut by increasing midgut internalization, resulting in higher infection rates and viral dissemination in mosquitoes (PubMed:31726374).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Storage information	Avoid freeze / thaw cycle

Notes

Biotinamidocaproate N-Hydroxysuccinimide Ester (BAC) Biotin/Protein Ratio: 10-20 BAC molecules per goat IgG molecule.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Plasminogen also known as PLG is an important protein with a molecular weight of approximately 92 kDa. Plasminogen is a zymogen which means it is an inactive precursor that requires activation to function. It is produced primarily in the liver and circulates in blood plasma. Its expression occurs mainly in the liver but you can detect it in various tissues including the kidney. Plasminogen binds to tissue surfaces and undergoes transformation into plasmin an active enzyme that plays significant roles in many biological processes.
Biological function summary	Plasminogen plays a central role in fibrinolysis which is the breakdown of fibrin clots. This process is essential in wound healing and maintaining normal blood flow. Plasminogen once activated to plasmin acts by degrading fibrin a major

	component of blood clots. The protein forms part of the fibrinolytic system along with other components like tissue plasminogen activator (tPA). Together they ensure that any clots forming within blood vessels are regulated and dissolved as necessary preventing blockages.
Pathways	Plasminogen is deeply involved in the coagulation and fibrinolytic systems. The conversion of plasminogen to plasmin is a critical step in these pathways requiring activators such as urokinase. Plasminogen has interactions with proteins like alpha-2-antiplasmin and thrombin which help modulate its activity. These interactions ensure a careful balance is maintained between clot formation and dissolution which is vital for normal bodily function.
Associated diseases and disorders	Plasminogen deficiency is linked with conditions like ligneous conjunctivitis a rare disorder characterized by membranous lesions mainly in the eyes. Reduced plasminogen activity can lead to excessive clot formation contributing to thrombosis risk. Plasminogen's interaction with plasmin and its deficiency can also associate with angioedema a condition that causes sudden swelling in the deeper layers of skin and tissues. Understanding the pathways and the proteins involved in plasminogen's function presents therapeutic potential in managing these disorders.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

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