

Plasminogen Antibody



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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H	Endogenous	100	Rabbit	#P00747	5340

Product Usage Information

Application

Western Blotting

Dilution

1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

Plasminogen Antibody recognizes endogenous levels of total plasminogen protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro132 of human plasminogen protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Plasminogen is the inactive, proenzyme precursor to the serine protease plasmin that degrades fibrin within blood clots, promotes cell migration through proteolytic degradation of extracellular matrix proteins, and regulates angiogenesis and wound healing through activation of matrix metalloproteinases (1-4). Inactive plasminogen is produced and secreted by liver cells and is found in the circulatory system and extracellular fluids (1). The plasminogen protein is composed of an amino terminal preactivation peptide followed by five kringle domains and a serine proteinase domain (5). The plasminogen zymogen binds to sites on the cell surface and is subsequently cleaved to release the active serine proteinase plasmin. Identified plasminogen cell surface receptors (including S100A10, enolase and PLGRKT) share carboxy-terminal lysine residues that interact with plasminogen kringle domains, resulting in cell surface localization of plasminogen (6-8). Cleavage of plasminogen can be catalyzed by a number of distinct enzymes, including tissue specific plasminogen activator (tPA), urokinase plasminogen activator (uPA), and kallikrein (1). An additional plasminogen cleavage product is the angiogenesis inhibitor angiostatin, which is derived from the first four kringle domains (9). A number of related angiogenesis inhibitors, derived from various parts of the plasminogen kringle region, have been shown to inhibit endothelial cell growth and proliferation (10). Mutations in the corresponding *PLG* gene have been linked to plasminogen deficiencies, characterized by decreased plasmin expression and ligeneous conjunctivitis in some individuals (11).

Background References

1. Plow, E.F. et al. (1995) *FASEB J* 9, 939-45.
2. Creemers, E. et al. (2000) *Am J Pathol* 156, 1865-73.
3. Gong, Y. et al. (2008) *J Clin Invest* 118, 3012-24.
4. Gong, Y. and Hoover-Plow, J. (2012) *J Biomed Biotechnol* 2012, 437920.
5. Petersen, T.E. et al. (1990) *J Biol Chem* 265, 6104-11.
6. Miles, L.A. et al. (2005) *Front Biosci* 10, 1754-62.
7. Lighvani, S. et al. (2011) *Blood* 118, 5622-30.
8. Ceruti, P. et al. (2013) *Exp Hematol Oncol* 2, 12.
9. O'Reilly, M.S. et al. (1994) *Cell* 79, 315-28.
10. Nguyen, T.M. et al. (2007) *Blood* 109, 4793-802.
11. Mehta, R. and Shapiro, A.D. (2008) *Haemophilia* 14, 1261-8.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human

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