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PAI1 / SERPINE1, Biotinylated

Peptide-affinity purified goat antibody
Catalog # AF1777b

Product Information

Application	WB, IHC, Pep-ELISA
Primary Accession	P05121
Other Accession	NP_001158885, 5054
Reactivity	Human
Predicted	Dog
Host	Goat
Clonality	Polyclonal
Isotype	IgG
Calculated MW	45060

Additional Information

Gene ID	5054
Other Names	Plasminogen activator inhibitor 1, PAI, PAI-1, Endothelial plasminogen activator inhibitor, Serpin E1, SERPINE1, PAI1, PLANH1
Dilution	WB~~1:1000 IHC~~1:100~500 Pep-ELISA~~N/A
Format	0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	PAI1 / SERPINE1, Biotinylated is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SERPINE1
Synonyms	PAI1, PLANH1
Function	Serine protease inhibitor. Inhibits TMPRSS7 (PubMed: 15853774). Is a primary inhibitor of tissue-type plasminogen activator (PLAT) and urokinase-type plasminogen activator (PLAU). As PLAT inhibitor, it is required for fibrinolysis down-regulation and is responsible for the controlled degradation of blood clots (PubMed:17912461, PubMed:8481516, PubMed:9207454, PubMed:21925150). As PLAU inhibitor, it is involved in the

regulation of cell adhesion and spreading (PubMed:9175705). Acts as a regulator of cell migration, independently of its role as protease inhibitor (PubMed:15001579, PubMed:9168821). It is required for stimulation of keratinocyte migration during cutaneous injury repair (PubMed:18386027). It is involved in cellular and replicative senescence (PubMed:16862142). Plays a role in alveolar type 2 cells senescence in the lung (By similarity). Is involved in the regulation of cementogenic differentiation of periodontal ligament stem cells, and regulates odontoblast differentiation and dentin formation during odontogenesis (PubMed:25808697, PubMed:27046084).

Cellular Location Secreted.

Tissue Location Expressed in endothelial cells (PubMed:2430793, PubMed:3097076). Found in plasma, platelets, and hepatoma and fibrosarcoma cells.

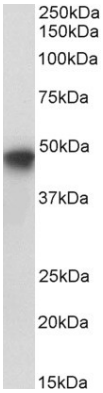
Background

This gene encodes a member of the serine proteinase inhibitor (serpin) superfamily. This member is the principal inhibitor of tissue plasminogen activator (tPA) and urokinase (uPA), and hence is an inhibitor of fibrinolysis. Defects in this gene are the cause of plasminogen activator inhibitor-1 deficiency (PAI-1 deficiency), and high concentrations of the gene product are associated with thrombophilia. Alternatively spliced transcript variants encoding different isoforms have been found for this gene.

References

The Role of Plasminogen Activator Inhibitor-1 and Angiotensin-Converting Enzyme Gene Polymorphisms in Bronchopulmonary Dysplasia. Ince DA, et al. Genet Test Mol Biomarkers, 2010 Sep 6. PMID 20818980. Tumour budding, uPA and PAI-1 are associated with aggressive behaviour in colon cancer. M □rkl B, et al. J Surg Oncol, 2010 Sep 1. PMID 20740581. Association of PAI-1 gene polymorphism with survival and chemotherapy-related vascular toxicity in testicular cancer. de Haas EC, et al. Cancer, 2010 Aug 24. PMID 20737565. Failure to lyse venous thrombi because of elevated plasminogen activator Inhibitor 1 (PAI-1) and 4G polymorphism of its promotor genome (The PAI-1/4G Syndrome). Bern MM, et al. Clin Appl Thromb Hemost, 2010 Oct. PMID 20724304. Evaluation of the Association of Urokinase Plasminogen Activator System Gene Polymorphisms with Susceptibility and Pathological Development of Hepatocellular Carcinoma. Weng CJ, et al. Ann Surg Oncol, 2010 Aug 13. PMID 20706793.

Images



Biotinylated EB06720 (0.2 µg/ml) staining of HepG2 lysate (35 µg protein in RIPA buffer), exactly mirroring its parental non-biotinylated product. Primary incubation was 1 hour. Detected by chemiluminescence, using streptavidin-HRP and using NAP blocker as

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