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SERPINE1 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1656a

Product Information

Application	WB, IHC, FC, E
Primary Accession	P05121
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	1D5
Isotype	IgG1
Calculated MW	45060
Description	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.
Immunogen	Purified recombinant fragment of human SERPINE1 expressed in E. Coli.
Formulation	Purified antibody in PBS with 0.05% sodium azide

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~~1/500 - 1/2000 IHC~~1/200 - 1/1000 FC~~1/200 - 1/400 E~~1/10000
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	SERPINE1 Antibody 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.

References

1. Biol Pharm Bull. 2009 Apr;32(4):573-7. 2. Clin Chim Acta. 2009 Apr;402(1-2):189-92.

Images

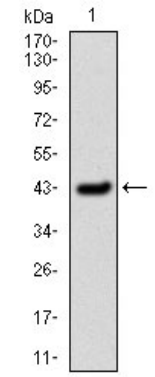

Figure 1: Western blot analysis using SERPINE1 mAb against human SERPINE1 (AA: 194-316) recombinant protein. (Expected MW is 45kDa kDa)

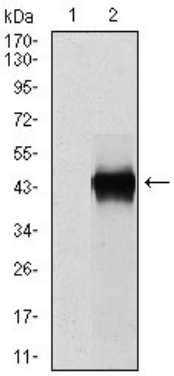

Figure 2: Western blot analysis using SERPINE1 mAb against HEK293 (1) and SERPINE1 (AA: 194-316)-hIgGFc transfected HEK293 (2) cell lysate.

Figure 3: Immunohistochemical analysis of paraffin-embedded lung cancer tissues using SERPINE1 mouse mAb with DAB staining.

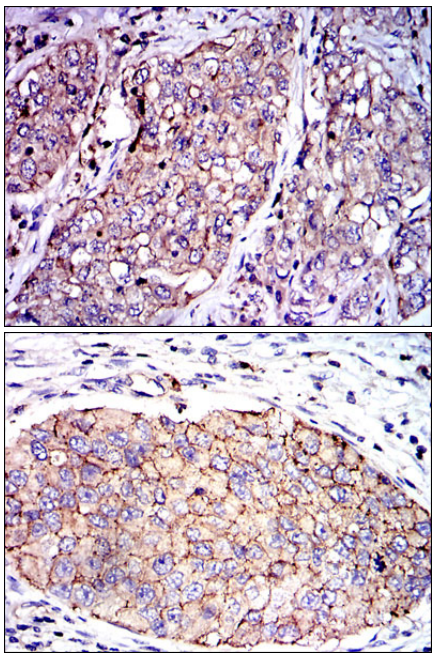

Figure 4: Immunohistochemical analysis of paraffin-embedded kidney cancer tissues using SERPINE1 mouse mAb with DAB staining.

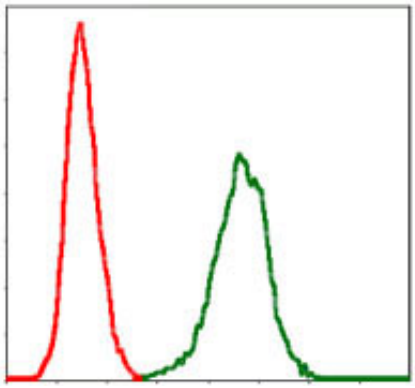

Figure 5: Flow cytometric analysis of NIH/3T3 cells using SERPINE1 mouse mAb (green) and negative control (red).