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SERPINE1 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1656a

Specification

SERPINE1 Antibody - Product Information

Application	**WB, IHC, FC, E**
Primary Accession	P05121
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**
Calculated MW	**45kDa KDa**

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

SERPINE1 Antibody - 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.

SERPINE1 Antibody - 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.

SERPINE1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

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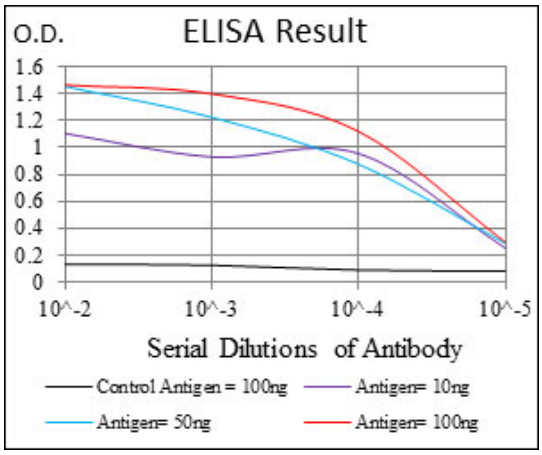

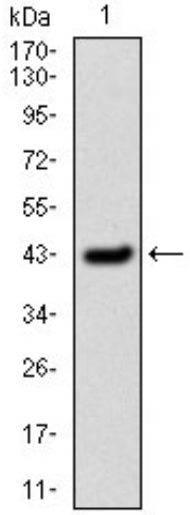

Figure 1: Western blot analysis using SERPINE1 mAb against human SERPINE1 (AA: 194-316) recombinant protein. (Expected MW is 45kDa kDa)

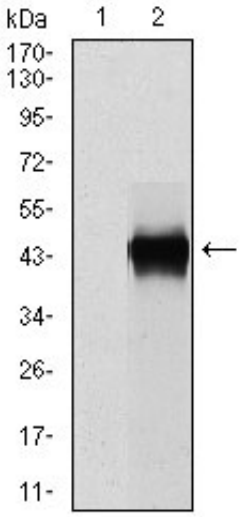

Figure 2: Western blot analysis using SERPINE1 mAb against HEK293 (1) and SERPINE1 (AA: 194-316)-hIgGFc transfected HEK293 (2) cell lysate.

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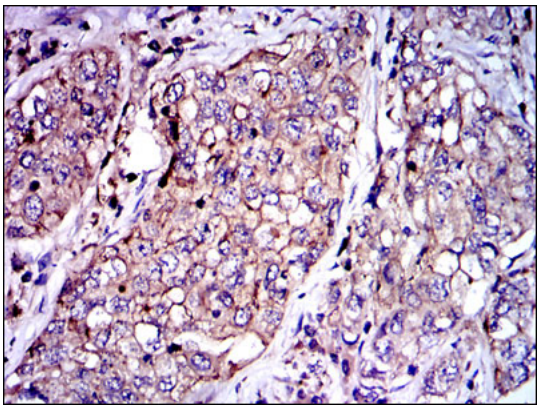

Figure 3: Immunohistochemical analysis of paraffin-embedded lung cancer tissues using SERPINE1 mouse mAb with DAB staining.

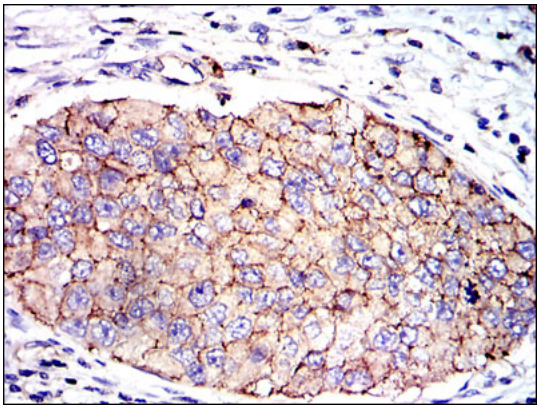

Figure 4: Immunohistochemical analysis of paraffin-embedded kidney cancer tissues using SERPINE1 mouse mAb with DAB staining.

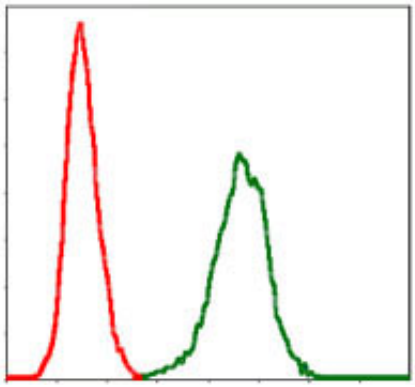

Figure 5: Flow cytometric analysis of NIH/3T3 cells using SERPINE1 mouse mAb (green) and negative control (red).

SERPINE1 Antibody - References

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