Technical Data Sheet

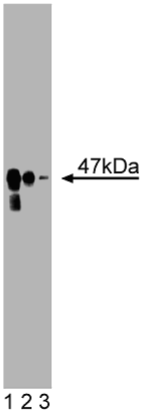
Purified Mouse Anti-PAI-1

Product Information

Material Number:	**612025**
Size:	150 µg
Concentration:	250 µg/ml
Clone:	41/PAI-1
Immunogen:	Human PAI-1 aa. 207-329
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Human Tested in Development: Dog, Rat, Mouse, Chicken
Target MW:	47 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Fibrinolysis is regulated by the plasminogen activators, tissue plasminogen activator (tPA) and urokinase PA (uPA), and by the plasminogen activator-inhibitors (PAIs). Two PAIs include the serpin family members, PAI-1 and PAI-2. PAI-1 is a glycoprotein found in plasma, platelets, endothelial cells, hepatoma cells, and fibrosarcoma cells. Thrombin, endotoxin, and IL-1 induce PAI-1 synthesis in endothelial cells, which is where the major portion of plasma PAI-1 is produced. PAI-2 is a glycoprotein expressed in placenta and monocyte macrophages. The uPA/plasmin system may play a key role in cancer progression through degradation of the extracellular matrix during tumor cell migration. Paradoxically, high levels of PAI-1 are also predictive of poor prognosis of cancer patients. This finding may be a result of the role of plasmin proteolysis in the prevention of tumor vessel assembly. PAI-1 can promote tumor angiogenesis, and the mechanism may involve PAI-induced regulation of plasmin proteolysis during tumor angiogenesis. Thus, PAI-1 is a serpin protease inhibitor that is important for the regulation of plasmin proteolysis during fibrinolysis and extracellular matrix degradation.



Western blot analysis of PAI-1 on human endothelial cell lysate. *Lane 1: 1:2500, lane 2: 1:5000, lane 3: 1:10000 of anti- PAI-1.*

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at -20°C.

Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Not Recommended

Recommended Assay Procedure:

Western blot: Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml .

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Suggested Companion Products

Catalog Number	Name	Size	Clone
611450	Human Endothelial Cell Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

Bajou K, Masson V, Gerard RD. The plasminogen activator inhibitor PAI-1 controls in vivo tumor vascularization by interaction with proteases, not vitronectin. Implications for antiangiogenic strategies. *J Cell Biol.* 2001; 152(4):777-784.(Biology)

Cai H, Li Z, Goette A, Mera F. Downregulation of endocardial nitric oxide synthase expression and nitric oxide production in atrial fibrillation: potential mechanisms for atrial thrombosis and stroke. *Circulation.* 2002; 106(22):2854-2858.(Clone-specific: Western blot)

Ginsburg D, Zeheb R, Yang AY. cDNA cloning of human plasminogen activator-inhibitor from endothelial cells. *J Clin Invest.* 1986; 78(6):1673-1680.(Biology)