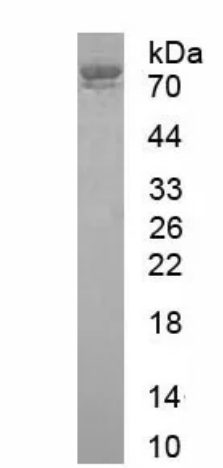
Active Plasminogen Activator Inhibitor 2 (PAI2)

Catalog#:PHR12390

概述（Summary）

别称（Alternative Names）	SERPINB2; PLANH2; Serpin Peptidase Inhibitor Clade B Member 2; Monocyte Arg-serpin; Placental plasminogen activator inhibitor; Serpin B2; Urokinase inhibitor
纯度（Purity）	Greater than 95% as determined by reducing SDS-PAGE.
内毒素（Endotoxin level）	Please contact with the lab for this information
蛋白构建（Construction）	【Met1-Pro416】
Accession #	P29524
表达宿主（Host）	293F
种属（Species）	Rattus norvegicus (Rat)
预测分子量（Predicted MW）	78.3 kDa
制剂（Form）	Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
运输方式（Shipping）	The product is shipped with ice bag. Upon receipt, store it immediately at the temperature listed below.
稳定性&储存（Stability &Storage）	12 months at -20°C to -80°C in lyophilized state.6 months at -20°C to -80°C under sterile conditions after reconstitution.7-10 days at 2°C to 8°C under sterile conditions after reconstitution.Please minimize freeze-thaw cycles.
复溶（Reconstitution）	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
背景介绍（References）	Inhibits urokinase-type plasminogen activator.

电泳图（SDS-PAGE image）



Greater than 95% as determined by reducing SDS-PAGE.

活性图（Bioactivity image）

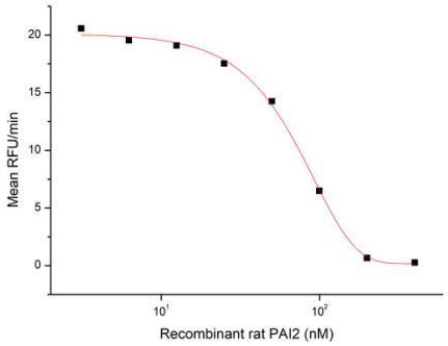


Figure 1. Inhibition of uPA activity by recombinant rat PAI2

Serpin B2, also known as PAI-2, is an approximately 60 kDa serine protease inhibitor. It is primarily secreted by macrophages and monocytes and can form disulfide-linked multimers. Serpin B2 inhibits both the urokinase-type and tissue-type plasminogen activators (uPA and tPA). Serpin B2 also promotes the clearance of uPA by enhancing its binding and uptake by LRP. It limits fibril formation by Huntington protein (HTT) and beta-Amyloid peptides. It promotes Th2 biased immune responses and is important for intestinal CCL2 production, monocyte recruitment, and nematode clearance. A non-glycosylated form of Serpin B2 is retained intracellularly where it interferes with TNF-a induced apoptosis by protecting the Retinoblastoma protein (RB1) from calpain digestion. It also inhibits proteasome activity in activated endothelial cells. The activity of recombinant rat PAI-2 was measured by its ability to inhibit uPA cleavage of a peptide substrate, N-carbobenzyloxy-Gly-Gly-Arg-7-amido-4-methylcoumarin (Z-GGR-AMC) in the assay buffer 50 mM Tris, 0.01% Tween 20, pH 8.5. The 50 ul different concentrations of rrPAI-2 (MW: 78.3 KD) was incubated with 50ul 2ug/ml rhuPA (EPA140Mu61) at room temperature for 15 minutes. Loading 50 µL of the incubated mixtures into empty wells of a plate, and start the reaction by adding 50 µL of 200 µM substrate (Z-GGR-AMC). Include a substrate blank containing 50 µL of assay buffer and 50 µL of 200 µM substrate. Then read at excitiation and emission wavelengths of 380 nm and 460 nm, respectively, in kinetic mode for 5 minutes. The result was shown in Figure 1 and it was obvious that recombinant rat PAI2 significantly decreased uPA activity. The inhibition IC50 was <73 nM.

注意事项（Note）

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