Datasheet for ABIN7197974

SERPIND1 Protein (His tag)

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1 Image

Overview

Quantity:	50 µg
Target:	SERPIND1
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This SERPIND1 protein is labelled with His tag.

Product Details

Purpose:	Recombinant Mouse SerpinD1/HCF2 Protein (His Tag)(Active)
Sequence:	Met1-Ser 478
Characteristics:	A DNA sequence encoding the mouse SerpinD1 precursor (NP_032249.3) (Met1-Ser 478) was expressed, with a C-terminal polyhistidine tag.
Purity:	> 98 % as determined by SDS-PAGE
Endotoxin Level:	< 1.0 EU per µg of the protein as determined by the LAL method.
Biological Activity Comment:	Measured by its ability to inhibit thombin (Sigma, T4648) cleavage of fluorogenic peptide substrate Boc-VPR-AMC (R&D Systems, Catslog# ES011). The IC50 value is < 1.2 nM.

Target Details

Target:	SERPIND1

Target Details

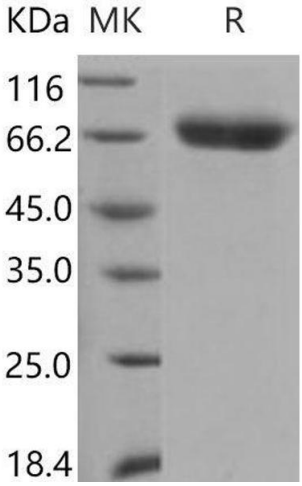
Alternative Name:	SerpinD1/HCF2 (SERPIND1 Products)
Background:	Background: SerpinD1, also known as heparin cofactor II (HCâ…¡), is a member of Serpin superfamily of the serine proteinase inhibitors. HCII is a glycoprotein in human plasma that inhibits thrombin and chymotrypsin, and the rate of inhibition of thrombin is rapidly increased by Dermatan sulfate (DS), heparin (H) and glycosaminoglycans(GAG). The stimulatory effect of glycosaminoglycans on the inhibition is mediated, in part, by the N-terminal acidic domain of HCII. Interestingly, a C-terminal His-tagged recombinant HCII exhibits enhanced activity of thrombin inhibition. It has been suggested that HCII plays an unique and important role in vascular homeostasis, and accordingly mutations in this gene or congenital HCII deficiency is potentially associated with thrombosis. HCII specifically inhibits thrombin action at the site of vascular wall injury and HCII-thrombin complexes have been detected in human plasma. HCII protects against thrombin-induced vascular remodeling in both humans and mice and suggest that HCII is a predictive biomarker and therapeutic target for atherosclerosis. SerpinD1 also inhibits chymotrypsin, but in a glycosaminoglycan-independent manner. Synonym: Heparin cofactor 2; Heparin cofactor II; HC-II; Protease inhibitor leuserpin-2; Serpin D1
Molecular Weight:	53.5 kDa
NCBI Accession:	NP_032249

Application Details

Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Please refer to the printed manual for detailed information.
Buffer:	Lyophilized from sterile 25 mM HEPES, 150 mM NaCl, pH 7.4
Storage:	4 °C,-20 °C,-80 °C
Storage Comment:	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.



Western Blotting
Image 1.

