Recombinant Human SerpinD1 Protein (His Tag)

Catalog Number: PKSH031703

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

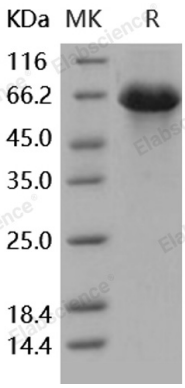
Description

Species	Human
Source	HEK293 Cells-derived Human SerpinD1 protein Met 1-Ser 499, with an C-terminal His
Calculated MW	56.4 kDa
Observed MW	65-70 kDa
Accession	NP_000176.2
Bio-activity	Immobilized recombinant human SerpinD1-His at 10 μg/ml (100 μl/well) can bind biotinylated recombinant mouse ELANE-His with a linear range of 0.15-10.0 μg/ml.

Properties

Purity	> 97 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	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.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile 50 mM Tris, 100 mM NaCl, 8% Glycerol, 10% Trehalose, 0.02% Tween 80, pH 8.5.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 97 % as determined by reducing SDS-PAGE.

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.

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