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Datasheet for ABIN7197921
SERPINC1 Protein (His tag)

Overview

Quantity:	50 µg
Target:	SERPINC1
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This SERPINC1 protein is labelled with His tag.

Product Details

Purpose:	Recombinant Human SerpinC1/AntithrombinIII/ATIII Protein (His Tag)(Active)
Sequence:	Met 1-Lys 464
Characteristics:	A DNA sequence encoding the human SerpinC1 (NP_000479.1) (Met 1-Lys 464) was expressed with a C-terminal polyhistidine tag.
Purity:	> 95 % as determined by reducing SDS-PAGE.
Endotoxin Level:	< 1.0 EU per µg as determined by the LAL method.
Biological Activity Comment:	Measured by its ability to inhibit thrombin (Sigma, Catalog # T4648) cleavage of a fluorogenic peptide substrate Boc-VPR-AMC. The IC50 value is < 5 nM.

Target Details

Target:	SERPINC1
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Target Details

Alternative Name: SerpinC1/AntithrombinIII/ATIII ([SERPINC1 Products](#))

Background: SerpinC1, also known as antithrombin III (AT III), is a member of the serpin superfamily of serine protease inhibitors, and has been found to be a marker for disseminated intravascular coagulation (DIC) and to be of prognostic significance in septic patients. SerpinC1 synthesized in the liver is the principal plasma serpin of blood coagulation proteases and inhibits thrombin and other factors such as Xa by the formation of covalently linked complexes. Thus it is one of the most important coagulation inhibitors and the fundamental enzyme for the therapeutical action of heparin. In common with SerpinA5 and D1, the inhibitory activity of SerpinC1 undergoes a dramatic increase in the presence of heparin and other glycosaminoglycans. ATIII mediates the promotion of prostaglandin release, an inhibitor of leucocyte activation and downregulator of many proinflammatory cytokines. Antithrombin III exerts anti-inflammatory properties in addition to its anti-coagulative mechanisms. In animal models of sepsis, ATIII affected cytokine plasma concentrations with a decrease of pro-inflammatory cytokines. The deficiency or functional abnormality of ATIII may result in an increased risk of thromboembolic disease, such as deep vein thrombosis and pulmonary embolism. In addition, it has been reported that SerpinC1 can alter or influence inflammatory processes via inhibition of NF- κ B activation or actin polymerization.

Synonym: AT3;AT3D;ATIII;MGC22579;Serpinc1;THPH7

Molecular Weight: 50.5 kDa

NCBI Accession: [NP_000479](#)

Application Details

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: Please refer to the printed manual for detailed information.

Buffer: Lyophilized from sterile PBS, 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.
