

Recombinant human Serpin C1/Antithrombin-III protein

Catalog Number: ATGP3791

PRODUCT INFORMATION

Expression system

Baculovirus

Domain

1-546aa

UniProt No.

P01008

NCBI Accession No.

NP_000479

Alternative Names

Antithrombin-III, SERPINC1, AT3, AT3D, ATIII, THPH7

PRODUCT SPECIFICATION

Molecular Weight

50.1 kDa (441aa)

Concentration

0.5mg/ml (determined by absorbance at 280nm)

Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

Purity

> 90% by SDS-PAGE

Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

Biological Activity

Measured by its ability to inhibit Thrombin cleavage of substrate Boc-VPR-AMC. The IC50 for this effect is less or equal to 1nM.

Tag

His-Tag

Application

Enzyme Activity, SDS-PAGE

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Recombinant human Serpin C1/Antithrombin-III protein

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Description

SERPINC1, also known as antithrombin-III, is a member of the Serpin superfamily of the serine protease inhibitors. It is the principal plasma Serpin of blood clotting proteases and inhibits thrombin as well as several factors such as Xa. It is one of the most important coagulation inhibitors and is the basic enzyme for the therapeutic action of heparin. In common with SerpinA5 and D1, the inhibitory activity of SerpinC1 dramatically increases the presence of heparin and other glycosaminoglycans. It mediates the promotion of prostaglandin release, inhibitors of leukocyte activation and down-regulation of many inflammatory cytokines. This protein has anti-inflammatory properties besides anticoagulant. Recombinant human SERPINC1, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

Amino acid Sequence

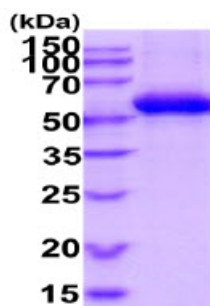
ADPHGSPVDI CTAKPRDIPM NPMCIYRSPE KKATEDEGSE QKIPEATNRR VWELSKANSR FATTFYQHLA DSKNDNDNIF
LSPLSISTAF AMTKLGACND TLQQLMEVFK FDTISEKTSQ QIHFFFAKLN CRLYRKANKS SKLVSANRLF GDKSLTFNET
YQDISELVYG AKLQPLDFKE NAEQSRAAIN KWVSNKTEGR ITDVIPSEAI NELTVLVLVN TIYFKGLWKS KFSPENTRKE
LFYKADGESG SASMMYQEGK FRYRRVAEGT QVLELPFKGD DITMVLILPK PEKSLAKVEK ELTPEVLQEW LDELEEMMLV
VHMPRFRIED GFSLEQLQD MGLVDLFSPE KSKLPGIVAE GRDDLVSDA FHKAFLEVNE EGSEAAASTA VVIAGRSLNP
NRVTFKANRP FLVFIREVPL NTIIFMGRVA NPCVKHHHHH H

General References

Caglikulekci M., et al. (2004) Ann Chir. 129:273-277.
Chuang, Y.-J., et al. (2001) Biochemistry 40:6670-6679.

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

15% SDS-PAGE (3ug)