# abcam

## Product datasheet

# Recombinant human Antithrombin III/ATIII protein (Active) ab234969

### 1 Image

**Description** 

Product name Recombinant human Antithrombin III/ATIII protein (Active)

**Biological activity** Measured by its ability to inhibit Thrombin cleavage of substrate Boc-VPR-AMC. The IC<sub>50</sub> for this

effect is less or equal to 1 nM.

Purity > 90 % SDS-PAGE.

Purified by using conventional chromatography techniques.

Endotoxin level < 1.000 Eu/µg

**Expression system** Baculovirus infected insect cells

Accession P01008

Protein length Full length protein

Animal free No

Nature Recombinant

**Species** Human

Sequence ADPHGSPVDICTAKPRDIPMNPMCIYRSPEKKATEDEG

**SEQKIPEATNRR** 

VWELSKANSRFATTFYQHLADSKNDNDNIFLSPLSIST

**AFAMTKLGACND** 

TLQQLMEVFKFDTISEKTSDQIHFFFAKLNCRLYRKANK

SSKLVSANRLF

**GDKSLTFNETYQDISELVYGAKLQPLDFKENAEQSRAA** 

INKWVSNKTEGR

ITDVIPSEAINELTVLVLVNTIYFKGLWKSKFSPENTRKE

LFYKADGESC

SASMMYQEGKFRYRRVAEGTQVLELPFKGDDITMVLIL

**PKPEKSLAKVEK** 

ELTPEVLQEWLDELEEMMLVVHMPRFRIEDGFSLKEQ

LQDMGLVDLFSPE

KSKLPGIVAEGRDDLYVSDAFHKAFLEVNEEGSEAAA

STAVVIAGRSLNP

NRVTFKANRPFLVFIREVPLNTIIFMGRVANPCVKHHHH

ΗН

Predicted molecular weight 52 kDa

Amino acids 33 to 464

Tags His tag C-Terminus

Additional sequence information This product is the mature full length protein from an 33 to 464. The signal peptide is not included

(NP\_000479).

#### **Specifications**

Our Abpromise guarantee covers the use of ab234969 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

**Applications** Functional Studies

SDS-PAGE

Form Liquid

**Additional notes** Previously labelled as Antithrombin III.

#### **Preparation and Storage**

Stability and Storage Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -

80°C. Avoid freeze / thaw cycle.

pH: 7.40

Constituents: PBS, 10% Glycerol

This product is an active protein and may elicit a biological response in vivo, handle with caution.

#### **General Info**

**Function** Most important serine protease inhibitor in plasma that regulates the blood coagulation cascade.

AT-III inhibits thrombin as well as factors IXa, Xa and Xla. Its inhibitory activity is greatly enhanced

in the presence of heparin.

**Tissue specificity** Found in plasma.

Involvement in disease Defects in SERPINC1 are the cause of antithrombin III deficiency (AT3D) [MIM:613118]. AT3D is

an important risk factor for hereditary thrombophilia, a hemostatic disorder characterized by a tendency to recurrent thrombosis. AT3D is classified into 4 types. Type I: characterized by a 50% decrease in antigenic and functional levels. Type II: has defects affecting the thrombin-binding domain. Type III: alteration of the heparin-binding domain. Plasma AT-III antigen levels are normal

in type II and III. Type IV: consists of miscellaneous group of unclassifiable mutations.

**Sequence similarities**Belongs to the serpin family.

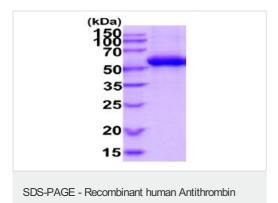
Post-translational modifications

Phosphorylation sites are present in the extracelllular medium.

Cellular localization

Secreted > extracellular space.

#### **Images**



III/ATIII protein (Active) (ab234969)

15% SDS-PAGE analysis of 3 µg ab234969.

MW: 50-70 kDa (SDS-PAGE under reducing conditions).

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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