

## Antithrombin III/Serpin C1 Protein, Human (HEK293, C-His)

Cat. No.:	HY-P72831A
Synonyms:	Antithrombin-III; ATIII; Serpin C1; SERPINC1; AT3
Species:	Human
Source:	HEK293
Accession:	P01008 (S35-K464)
Gene ID:	462
Molecular Weight:	55-60 kDa

### PROPERTIES

<b>AA Sequence</b>	<pre> S P V D I C T A K P   R D I P M N P M C I   Y R S P E K K A T E   D E G S E Q K I P E A T N R R V W E L S   K A N S R F A T T F   Y Q H L A D S K N D   N D N I F L S P L S I S T A F A M T K L   G A C N D T L Q Q L   M E V F K F D T I S   E K T S D Q I H F F F A K L N C R L Y R   K A N K S S K L V S   A N R L F G D K S L   T F N E T Y Q D I S E L V Y G A K L Q P   L D F K E N A E Q S   R A A I N K W V S N   K T E G R I T D V I P S E A I N E L T V   L V L V N T I Y F K   G L W K S K F S P E   N T R K E L F Y K A D G E S C S A S M M   Y Q E G K F R Y R R   V A E G T Q V L E L   P F K G D D I T M V L I L P K P E K S L   A K V E K E L T P E   V L Q E W L D E L E   E M M L V V H M P R F R I E D G F S L K   E Q L Q D M G L V D   L F S P E K S K L P   G I V A E G R D D L Y V S D A F H K A F   L E V N E E G S E A   A A S T A V V I A G   R S L N P N R V T F K A N R P F L V F I   R E V P L N T I I F   M G R V A N P C V K           </pre>
<b>Biological Activity</b>	Measured by its ability to inhibit thrombin cleavage of a fluorogenic peptide substrate Boc-VPR-AMC and the IC <sub>50</sub> value is < 5 nM.
<b>Appearance</b>	Lyophilized powder.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution of 20 mM PB, 150 mM NaCl, pH 7.4.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
<b>Storage &amp; Stability</b>	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

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## DESCRIPTION

### Background

Antithrombin III/Serpin C1 protein, the principal serine protease inhibitor in plasma, plays a crucial role in regulating the blood coagulation cascade. It effectively inhibits thrombin, matriptase-3/TMPRSS7, and factors IXa, Xa, and XIa, with its inhibitory activity significantly potentiated in the presence of heparin. Additionally, Antithrombin III/Serpin C1 forms a protease-inhibiting heterodimer with TMPRSS7.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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